論文の内容の要旨

論文題目　Three essays on monetary exchanges through shops
(店舗を通じた貨幣取引に関する三つの小論)

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Directedness (or direction) of traders' behavior is the source of variety of actual trading patterns. A shrine becomes a marketplace when the traders gather there. (See Klengel (1983).) Stores gather in a shopping mall since many customers visit there. A narrow coast becomes a barter post if two tribes happen to encounter each other there, while an open anchorage declines if the inhabitants come to avoid the place for, say, a religious reason. (For instructive materials, see IV-197 of Herodotus (B.C. 440) and Polanyi (1966).) And a bar of salt stops being a commodity money when all the sales are directed for some fiat money. Economic entities to which traders direct their attentions flourish, while those without the attentions decline. Like a relationship between blood flow and the organs, the directed flows of economic activities determine the pattern of trading. As a typical instrument for directing, the traders utilize some structure of shops: a set of targets for traders who are locating for trading opportunities.

Forms of shops, i.e. commodity-specific places for exchanging, have existed since ancient ages. Assyrian merchants in the ancient Orient (especially from B.C. 1200 to 600) constructed a guild which has branches in commercial cities in order to open periodic marketplace for exchanging their specific goods (such as tin) and silver (Curtin (1984)). In China, since about B.C. 300, merchants' trading in periodic markets, utilizing shops, has been recorded (Nishijima (1981)). In Japan, one of the oldest administrative law has described rules on settling of shops in official periodic markets (Nakamura (2005)). And for each area or country, merchants always have appeared in history with their shops since some armed authority had started maintaining public peace. In this sense, the structure of shops has been deeply embodied in, and characterizing, our economic system.

This paper investigates economies with shops. Thoretically, shops are directing devices in the exchange economy. They enhance the efficiency of trading in a sense that they enable traders to select and design their trading opportunities. Simultaneously, they make the exchange system variable in a sense that the system may change according to the trend of traders' directing decisions. In this setting, each exchange system is an outcome of some economic equilibrium; with coexisting multiple equilibria, there are multiple substitutable

systems. Based on this viewpoint, this paper starts from considering the emergence of a structure of shops with a system of friction-burdened exchange as the background. Next, it studies business fluctuation and stabilization as the substitutable outcomes. And finally, it investigates the ranking among multiple currencies as one equilibrium outcome in the international economy, with special focus on the dollar and the euro. These researches as a whole provides the readers a grand view on the influence of directing in exchange economy.

The trading post model and its extensions capture the main feature of shopping economy: that is, directed locating by traders. Essentially, in those models, traders' selections of trading opportunities are expressed as their location choices on places for trading. In the original model of Shapley and Shubik (1977), the agents choose trading posts to utilize when there are multiple posts for multiple kinds of goods. Matsui and Shimizu (2005) have supplied a search theoretic micoroeconomic foundation for the trading posts based on their multiple marketplaces model; a bundle of the trading posts emerges as the outcome of unique stable equilibirum. This paper holds two models of shops that are oriented to the marketplaces model and one model of multiple trading posts. The three models share a property that traders have ex ante alternatives of trading opportunities, which are expressed as alternative locations for their trading.% [...to] As seen above, economic models with shops are useful for researches on those topics in which directions of economic acitivities are important.

Succeeding three parts of this paper study three different aspects of the shopping economies: its emergence, domestic aspect, and international aspect. In the following, the author supplies details of these researches part by part.

Part 1 studies a process wherein merchants shift their trading style from peddling to shop-keeping, along with an armed force's voluntary security provision. Merchants in an exchange economy have two kinds of exchanging technology, random matching and directed search with signboards. The former includes matching friction but relatively lower risk of confiscation by regional armed groups. The latter, on the other hand, includes no friction but relatively higher risk of the confiscation. The latter becomes more reasonable when a large tribe monopolizes the economy for its own income gain by excluding the others, since the confiscators decrease, as long as the emerging governor's remaining taxation power is sufficiently low. For the candidate of governor, on the other hand, the merchants' transition to shop-keeping is an attraction to provide security. If the governor may mint fiat money in order to increase its tax income, the minting also becomes an attraction for the governor.

Furthermore, there is a synergy effect; since the benefit from acquiring fiat money is more when there is less matching friction, the transition to shop-keeping increases the attractiveness of minting for the governor.

Part 2 finds an prolongation effect of monetary exchange process on macroeconomic depression. Consider an exchange economy with stochastic productivity shocks on one type of goods. If the shock occurs, a part of the producers of that good fail to produce for a period. There is a possibility that this partial slump incurs bias in distribution of media of exchange in the economy. With respect to the response to the shocks, there are two patterns of the economy's behavior: stabilizing and fluctuating. In the former, the agents continue the same style of trading whether the shock occurs or not; each period, sufficiently many agents produce so that all the buyers acquire their consumption goods even when the shock occurs. In the latter, the trading starts stagnating when the shock occurs; a part of the agents quit their activities until the productivity recovers. Since there is a trade-off between the cost of stabilizing and that of fluctuating, the latter sometimes exhibits better welfare performance than the former; especially when the severity of the shock is relatively severe but the frequency is relatively low.

Part 3 inquires into international and regional currencies in the trade market, whose status is found on traders' individual choices on their opportunities of currency use. Based on a model of multiple trading posts, which explicitly incorporates traders' menu of available invoicing currencies, the author studies competing pair of international currency and regional currency: the dollar and the euro. In the long run, as the transaction costs in the foreign exchange market decreases, the dollar may lose its dominant status. The competition between these two internationalized currency becomes the war of attraction; each currency-region tempts the traders in its rival to use its currency. Decision of the third region on its domestic use of currencies also matters. An equilibirum refinement based on a scale-economy oriented stability criterion makes the analysis compact.