

Topical Issues in International Finance : (1) Sectoral Inflation Dynamics, and (2)
Decentralized Finance

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[Abstract]

In this talk, I will discuss notable topics that attracts a lot of attention in international financial policy makers' community: (1) sectoral inflation dynamics and (2) decentralized finance.

First, we discuss sectoral inflation. We examine the role of fragmentation of information in explaining the dynamics of sectoral inflation. Using the quarterly survey of firms' price and cost perceptions in Japan, we first document two empirical facts: (i) the responsiveness of sectoral inflation to changes in the sectoral cost perception monotonically decreases with the dispersion of the cost perception, and (ii) the persistence of the sectoral cost perception increases with the dispersion of the cost perception. We show that a direct application of the canonical dispersed information model can reconcile fact (i), but we fail to reconcile fact (ii). To address this issue, we extend the canonical dispersed information model to construct a dynamic general equilibrium model that features information fragmentation in which a finite number (N) of idiosyncratic noises exist, and are shared by $(1/N)$ proportion of the firms in the market. Using this model, we find that the increase of N , fragmentation of information, plays a crucial role in explaining these empirical facts.

Next, we will very briefly discuss our recent work on decentralized finance (DeFi). DeFi is a new form of financial intermediation based on crypto assets which has had extraordinary growth in the past two years, potentially offering higher efficiency and investment opportunities. DeFi is increasingly interconnected with traditional financial intermediaries. While its market size is still relatively small, unregulated DeFi poses market, liquidity, and cyber risks, against a backdrop of legal uncertainties. The absence of centralized entities governing DeFi is a challenge for effective regulation and supervision.