Nominal, Downward Wage Rigidity and Knighthan Uncertainty

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Abstract

From the viewpoint of avoiding the risk of real income fluctuation, it is desirable both for the firm and the worker to agree on the contract that is contingent on some price index such as Consumers' Price Index (CPI) in order to make real income for the workers stable and the public resistance to indexation is a "puzzle" (Shiller (1997)).

Based on interviews in the USA and Turkey, Shiller (1997) points out that people have anxiety that indexation may make risk of income fluctuation more serious. Such an anxiety is not naive money illusion for people whose composition of consumption basket is not necessarily similar to that of CPI.

Concerning this point, Mukerji and Tallon (2004) analyses the model in which both of the firm and the worker are confronted with Knightian uncertainty, the occasion where the agents cannot be confident about the probability of stochastic variables and their preference is represented by Choquet expected utility (CEU) and shows examples where the worker and the firm prefers nominally fixed wage contract to the CPI contingent indexation of wage.

However, their model crucially depends on the assumption that the volatility of the price the worker consumes is smaller than CPI volatility, which implies that the opportunity cost of non-indexation for the worker is relatively small. As for a worker who consumes the commodities for which the volatility of price is large, their conclusion does not hold.

This paper provides an example of the equilibrium of nominal downward wage rigidity for more general framework. If both of the firm and the worker are confronted with Knightian uncertainty captured by the maximin expected utility (MMEU) based on the set of multiple probability measures called ε-contamination, and if the worker does not know the commodities he/she will consume ex ante, the equilibrium nominal wage payment is fixed for the lowest and the medium values of CPI.