Interest Versus Profit-Loss Sharing Credit Contract: Efficiency and Welfare Implications

Abstract
In this paper we attempt to answer a fundamental question of whether a profit-loss sharing (PLS) based banking system can be welfare improving than an interest based banking system by developing a rigorous theoretical modelling. In the framework of production technology we firstly show that under production certainty and competitive market both PLS and interest based systems are efficient and just. However, under an uncertain situation due to a productivity shock, we prove that only the PLS system is just, since it fairly distributes the risk at individual level amongst lender and borrower. We verify our result by quantifying the effects on income distribution for both lender and borrower. Two indicators, namely the standard error of distribution and Gini ratio are considered. We also propose a mechanism that will improve the performance of a PLS system from capital owners perspective by introducing a so-called risk pooling bank. We prove that such a bank absorbs all the risk encountered by the capital owners and thus maintains their income distribution, and at the same time reduces the risk faced by borrowers.
Keywords: Profit-loss sharing, Islamic banking, income distribution, risk pooling agent.
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