Efficiency with Heterogeneous Forecasts

Do price forecasts of rational economic agents need to coincide in intertemporal perfectly competitive complete markets in order for markets to allocate resources efficiently? Recent work in a two-period model with a nominal bond has shown that there is a one-dimensional set of efficient allocations for generic endowments that can be sustained by heterogenous forecasts. Moreover, these efficient allocations can be supported by forecasts that disagree up to one degree of freedom. Thus, strong as efficiency and perfect competition may appear, they do not imply perfect foresight, but they do add explanatory power to temporary equilibrium, since they select a small subset out of the Pareto efficient allocations, which generally have higher dimension. We next study a muti-period model with a nominal bond that matures in one period and identify the set of efficient allocations that can be sustained as Walrasian equilibria with heterogenous forecasts. We then add a long maturity bond, which under perfect foresight would be a redundant asset, and show that it fundamentally expands the set of efficient allocations that can be sustained as Walrasian equilibria. Indeed, all wealth transfers compatible with efficiency can arise endogenously. The key feature driving this conclusion are forecasting errors, which lead to ex post arbitrage opportunities that induce these income transfers.