Asset Prices in a Production Economy with Long Run and Idiosyncratic Risk

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Abstract

This paper studies risk premia in an incomplete-markets economy with households facing idiosyncratic consumption risk. If the dispersion of idiosyncratic risk varies over the business cycle and households have preference for early resolution of uncertainty, asset prices will be affected not only by news about current and expected future aggregate consumption (as in models with a representative agent), but also by news about current and future changes in cross-sectional distribution of individual consumption. I investigate whether this additional effect can help to explain high risk premia in a production economy, where the aggregate consumption process is endogenous and thus can potentially be affected by the presence of idiosyncratic risk. Analyzing a neoclassical growth model combined with Epstein-Zin preferences and a tractable form of household heterogeneity, I find that countercyclical idiosyncratic risk increases the risk premium, but also effectively lowers willingness of households for intertemporal substitution and thus changes dynamics of aggregate consumption. Nevertheless, with the added flexibility of Epstein-Zin preferences, it is possible to both increase risk premia and maintain the same dynamics of quantities if we allow for higher intertemporal elasticity of substitution at the individual level.

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