Risk Sharing Externalities

Luigi Bocola* **Guido Lorenzoni†**

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Abstract

Modern macroeconomic models with a financial accelerator mechanism are built around two main ingredients: a collateral constraint and incomplete financial markets. The first ingredient implies that shocks affecting the balance sheet of productive agents propagate to the rest of the economy, while the second ingredient guarantees that agents cannot "hedge" these shocks. The commonly held view in the literature is that both ingredients are necessary for financial amplification. In this paper we revisit this view. We study a neoclassical model where risk averse entrepreneurs and households can trade a full set of Arrow securities, subject to a collateral constraint for entrepreneurs. We first show that, because of general equilibrium spillovers, the competitive equilibrium does not feature "perfect hedging" for entrepreneurs. Indeed, states of the world in which entrepreneurial net worth is low and the collateral constraint binds are also states in which households' income and consumption are low. Because households are risk averse, insuring those states requires a risk premium in equilibrium, a force that limits the *ex-ante* incentives of entrepreneurs to hedge. Numerical simulations show that this force is quantitatively relevant, as under plausible calibrations the competitive equilibrium with complete markets features the same degree of financial amplification as the one with incomplete markets. A social planner facing the same frictions can improve on the competitive equilibrium by subsidizing entrepreneurial savings toward bad states of the world.

*Stanford University, Federal Reserve Bank of Minneapolis and NBER
†Northwestern University and NBER