Macroeconomic Effects of Delayed Capital Liquidation

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This paper studies macroeconomic effects of financial shocks through the lens of delayed capital liquidation and reallocation among firms. I develop a model in which firms face idiosyncratic productivity risks, financial constraints, and random liquidation costs. Liquidation costs generate an option value of staying and a liquidation delay for unproductive firms. A novel feature arising from the delay is that unproductive firms have a higher debt-to-asset ratio than productive ones. I find that adverse financial shocks that tighten financial constraints can raise the option value. The financial shocks also have general equilibrium effects that further raise the option value and delay capital liquidation. Capital is thus persistently misallocated, leading to a long-lasting economic contraction. Using U.S. data from 1971-2015, I show that financial shocks can explain almost 67% of the variation in the capital liquidation-to-expenditures ratio and 72% of the variation in output.