"Overreaction" of Asset Prices in General Equilibrium

by

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Abstract

We attempt to explain the overreaction of asset prices to movements in short-term interest rates, dividends, and asset supplies. The key element of our explanation is a margin constraint that traders face which limits their leverage to a fraction of the value of their assets. Traders may lever themselves, further, either directly by borrowing short term or indirectly by engaging in futures and options trading, so that the scenario is relevant to contemporary financial markets. When some shock pushes asset prices to a low enough level at which the margin constraint binds, traders are forced to liquidate assets. This drives asset prices below what they would be with frictionless markets. Also, a shock which simply increases the likelihood that the margin constraint will bind can have a very similar effect on asset prices. We construct a general equilibrium model with margin constrained traders and derive some qualitative properties of asset prices. We present an analytical solution for a deterministic version of the model and a simple numerical computation of the stochastic version.

Key Words: Asset Pricing, Financial Constraints, General Equilibrium

JEL Classifications: G1, E0

* For Dilip and Meera.
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