A SYSTEMIC RISK MODEL FOR ASSET PRICE CONTAGION

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We develop a structural model for the analysis of systemic risk in financial markets based on asset price contagion. Specifically, we describe a mechanism of contagion where exogenous random shocks to individual agents in an economy forces portfolio rebalancing and impact asset prices. This, in turn, creates an endogenous chain reaction as downstream agents trade in reaction to price changes. We demonstrate an approach that quantifies the robustness of different financial networks to shocks propagated by asset price contagion.