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Strategic Fire-Sales and Price-Mediated Contagion in the Banking System

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We consider a price-mediated contagion framework in which each bank, after an exogenous shock, may have to sell assets in order to comply with regulatory constraints. Interaction between banks takes place only through price impact. We first characterize the equilibrium of the strategic fire sales problem and define measures of contagion. We then calibrate our model to publicly-available data — the US banks that were part of the 2015 regulatory stress-tests — and quantify contagion effects. We finally show how our framework may be used to draw regulatory measures such as the systemic risk capital surcharge for large banks.

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