

## **SYSTEMIC RISK WITH CENTRAL COUNTERPARTY CLEARING**

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We study a financial network in a stochastic framework. We measure systemic risk in terms of a coherent valuation principle. The framework allows us to examine the effects on systemic risk and price contagion of multilateral clearing via a central clearing counterparty (CCP). We prove existence and uniqueness of an interbank payment equilibrium in conjunction with the price impact on external assets. We find that a CCP not always reduces systemic risk and provide sufficient conditions for the latter to hold. We also propose an optimal capitalization of a CCP based on game theoretic arguments. A real world calibrated numerical study illustrates our findings. This is based on joint work with Damir Filipovic and Andreea Minca.