

Hedge Fund Credit Networks, Collateral, and Prime Broker Exposures*

Mathias S. Kruttli, Phillip J. Monin, and Sumudu W. Watugala[†]

Abstract

Events surrounding the collapse of Lehman Brothers illustrate the importance of managing prime broker counterparty risks for hedge funds. The central intermediary role played by prime brokers and hedge funds in financial markets also makes understanding their credit relationships a financial stability concern. We analyze the credit exposures between prime brokers and hedge funds and find that the hedge fund-prime broker credit network is highly concentrated. The average hedge fund in our sample borrows from three prime brokers and has a total credit exposure of \$2.15 billion. Using a within fund-quarter empirical strategy, we identify the effects of a major creditor shock on hedge funds. Idiosyncratic liquidity shocks to a prime broker are passed through to connected hedge funds and result in significant reduced aggregate borrowing by these hedge funds. Large, well-connected and better-performing hedge funds and those that do less OTC trading are able to compensate for this loss by borrowing from other prime brokers.

*The analysis and conclusions set forth are those of the authors and do not indicate concurrence by the Board of Governors of the Federal Reserve System, its research staff, or the Office of Financial Research, U.S. Department of the Treasury.

[†]Kruttli: The Board of Governors of the Federal Reserve System and Oxford-Man Institute of Quantitative Finance. Email: mathias.s.kruttli@frb.gov. Monin: Office of Financial Research. Email: phillip.monin@ofr.treasury.gov. Watugala: Cornell University and Office of Financial Research. Email: sumudu@cornell.edu.