SPRINGER NATURE Link

Log in

Information Flows Between the U.S. and China Commodity Futures Trading

Published: November 2003

Volume 21, pages 267–285 (2003) Cite this article



Review of Quantitative Finance and Accounting

Hung-Gay Fung[1], Wai K. Leung[2] & Xiaoqing Eleanor Xu[3]

1020 Accesses **86** Citations Explore all metrics →

Abstract

Using a bivariate GARCH model, we examine patterns of information flows for three commodity futures traded in both the developed U.S. market and the emerging China market (copper, soybeans and wheat). For copper and soybeans, the two commodities that are subject to less government regulation and fewer import restrictions in China, we find that the U.S. futures market plays a dominant role in transmitting information to the Chinese market, a result that confirms the importance of the U.S. role as a leader in the global financial market. For the heavily regulated and subsidized wheat commodity, our empirical results indicate that the U.S.-China futures markets are highly segmented in pricing, although information transmission via volatility spillover across markets is present.

This is a preview of subscription content, log in via an institution to check access.

Access this article

Log in via an institution →

Subscribe and save

Springer+ from €37.37 /Month

- Starting from 10 chapters or articles per month
- Access and download chapters and articles from more than 300k books and 2,500 journals
- Cancel anytime

View plans →

Buy Now

Buy article PDF 39,95 €

Price includes VAT (Poland)

Instant access to the full article PDF.

Institutional subscriptions →

Explore related subjects

Discover the latest articles, books and news in related subjects, suggested using machine learning.

Emerging Markets and Globalization | Information Model | International Finance | Market Intelligence | Capital Markets | International Trade

References

Berndt, E., B. Hall, R. Hall and J. Hausman, “Estimation and Inference in Nonlinear Structural Models. ” *Annals of Economic and Social Measurement* 3, 653–665 (1974).

Bollerslev, T., “Generalized Autoregressive Conditional Heteroskedasticity. ” *Journal of Econometrics* 31, 307–327 (1986).

Bollerslev, T., R. F. Engle and J. M. Wooldridge, “A Capital Asset Pricing Model with Time-Varying Covariances. ” *Journal of Political Economy* 96, 116–131 (1988).

Booth, G. G., P. Brockman and Y. Tse, “The Relationship Between U.S. and Canadian Wheat Futures. ” *Applied Financial Economics* 8, 73–80 (1998).

Cheung, Y.W. and H. G. Fung, “Information Flows Between Eurodollar Spot and Futures Markets. ” *Multinational Finance Journal* 1, 255–271 (1997).

Dhillon, U., D. J. Lasser and T. Watanabe, “Volatility, Information, and Double VersusWalrasian Auction Pricing in U.S. and Japanese Futures Markets. ” *Journal of Banking and Finance* 21, 1045–1061 (1997).

Engle, R. F., “Autoregressive Conditional Heteroskedasticity with Estimates of the Variance of U.K. Inflation. ” *Econometrica* 50, 987–1008 (1982).

Engle, R. F. and C. W. Granger, “Co-Integration and Error Correction: Representations, Estimation, and Testing. ” *Econometrica* 55, 251–276 (1987).

Engle, R. F. and K. F. Kroner, “Multivariate Simultaneous Generalized ARCH. ” *Economic Theory* 11, 122–150 (1995).

Eun, C. S. and S. Shim, “International Transmission of Stock Market Movements. ” *Journal of Financial and Quantitative Analysis* 24, 241–256 (1989).

Fung, H. G. and S. Isberg, “The International Transmission of Eurodollar and U.S. Interest Rates: A Cointegration Analysis. ” *Journal of Banking and Finance* 16, 757–769 (1992).

Fung, H. G. and W. C. Lo, “An Empirical Examination of the Ex Ante International Interest Rate Transmission. ” *Financial Review* 30, 175–192 (1995).

Fung, H. G., W. K. Leung and X. E. Xu, “Information Role of U.S. Futures Trading in a Global Financial Market. ” *Journal of Futures Markets* 21(11), 1071–1090 (2001).

Garbade, K. D. and W. L. Silber, “Price of Movements and Price Discovery in Futures and Cash Markets. ” *The Review of Economics and Statistics* 65, 289–297 (1983).

Ghosh, A., R. Saidi and K. H. Johnson, “Who Moves the Asia-Pacific Stock Markets-U.S. or Japan? Empirical Evidence Based on the Theory of Cointegration. ” *Financial Review* 34, 159–170 (1999).

Glosten, L. R., R. Jagannathan and D. E. Runkle, “On the Relation Between the Expected Value and the Volatility of the Nominal Excess Returns on Stocks. ” *Journal of Finance* 48, 1779–1801 (1993).

Harris, F. H., T. H. McInish, G. L. Shoesmith and R. A. Wood, “Cointegration, Error Correction, and Price Discovery on Informationally Linked Security Markets. ” *Journal of Financial and Quantitative Analysis* 30, 563–579 (1995).

Hill, J., T. Schneeweis and J. Yau, “International Trading/Non-Trading Time Effects on Risk Estimation in Futures Markets. ” *Journal of Futures Markets* 10, 407–423 (1990).

Holder, M., R. D. Pace and M. J. Tomas III, “Complements or Substitutes? Equivalent Futures Markets—The Case of Corn and Soybean Futures on U.S. and Japanese Exchanges. ” *Journal of Futures Markets* 22, 355–370 (2002).

Karolyi, A., “A Multivariate GARCH Model of International Transmission of Stock Returns and Volatility. ” *Journal of Business and Economic Statistics* 13, 11–25 (1995).

Kearney, C. and A. J. Patton, “Multivariate GARCH Modeling of Exchange Rate Volatility Transmission in the European Monetary System. ” *Financial Review* 41, 29–48 (2002).

Kwan, A., A. Sim and J. Cotsomitis, “The Causal Relationships Between Equity Indices on Word Exchanges. ” *Applied Economics* 27, 33–37 (1995).

Ross, S. A., “Information and Volatility: The No-Arbitrage Martingale Approach to Timing and Resolution Irrelevancy. ” *Journal of Finance* 44, 1–17 (1989).

Schwert, G. W., “Why Does Stock Market Volatility Change Over Time?” *Journal of Finance* 44, 1115–1153 (1989).

Theodossiou, P. and U. Lee, “Mean and Volatility Spillover Across Major National Markets: Further Empirical Evidence. ” *Journal of Financial Research* 16, 337–350 (1993).

Tse, Y., “International Linkages in Euromark Futures Markets: Information Transmission and Market Integration. ” *Journal of Futures Markets* 18, 129–149 (1998).

Tse, Y., T. H. Lee and G. G. Booth, “The International Transmission of Information in Eurodollar Futures Markets: A Continuously Trading Market Hypothesis. ”

Journal of International Money and Finance 15, 447–465 (1996).

Williams, J., A. Peck, A. Park and S. Rozelle, “The Emergence of a Futures Market: Mungbeans on the China Zhengzhou Commodity Exchange. ” *Journal of Futures Markets* 18, 427–448 (1998).

Yao, C., *Stock Market and Futures Market in the People*'s Republic of China. New York: Oxford University Press, 1998.

Author information

Authors and Affiliations

College of Business Administration, University of Missouri, St. Louis, 8001 Natural Bridge Road, St. Louis, MO, 63121

Hung-Gay Fung

Faculty of Business Administration, Chinese University of Hong Kong, Shatin, NT, Hong Kong

Wai K. Leung

W. Paul Stillman School of Business, Seton Hall University, 400 South Orange Avenue, South Orange, NJ, 07079

Xiaoqing Eleanor Xu

Rights and permissions

Reprints and permissions

About this article

Cite this article

Fung, HG., Leung, W.K. & Xu, X.E. Information Flows Between the U.S. and China Commodity Futures Trading. *Review of Quantitative Finance and Accounting* **21**, 267–285 (2003).
https://doi.org/10.1023/A:1027384330827

Issue date
November 2003
DOI
https://doi.org/10.1023/A:1027384330827

China futures market | cross-market information spillover | GARCH model

Search

Search by keyword or author

Navigation

Find a journal

Publish with us

Track your research