

Price clustering in E-mini and floor-traded index futures

Huimin Chung, Shumei Chiang 

First published: 09 January 2006

<https://doi.org/10.1002/fut.20196>



Abstract


This article sets out to investigate price clustering in both the open-outcry (floor-traded) and electronically traded (E-mini) index futures markets of the DJIA, S&P 500, and NASDAQ-100 indices. The results show that although price clustering is ubiquitous in both the floor-traded and E-mini index futures markets, it nevertheless tends to be higher for open-outcry index futures, with the clustering in floor-traded NASDAQ-100 index futures demonstrating the highest level (97%) at zero digits. A significant increase was also found in price clustering in floor-traded index futures after the introduction of E-mini futures trading. The results tend to suggest that those trading mechanisms that involve higher levels of human participation, such as the open-outcry markets, may well lead to increased incidences of price clustering. © 2006 Wiley Periodicals, Inc. *Jrl Fut Mark* 26: 269–295, 2006

BIBLIOGRAPHY

Aitken, M., Brown, P., Buckland, C., Izan, H. Y., & Walter, T. (1996). Price clustering on the Australian Stock Exchange. *Pacific-Basin Finance Journal*, 4, 297–314.

[Google Scholar](#) 

Alexander, G. I., & Peterson, M. A. (2004). An exploratory analysis of trade-size clustering on the NYSE. Seminar

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#) 

Manage Preferences

Accept All

Reject Non-Essential

ap Gwilym, O., & Alibo, E. (2003). Decreased price clustering in FTSE 100 futures contracts following the transfer from floor to electronic trading. *Journal of Futures Markets*, 23, 647-659.

[Web of Science®](#) | [Google Scholar](#)

ap Gwilym, O., Clare, A., & Thomas, S. (1998a). Extreme price clustering in the London Equity index futures and options markets. *Journal of Banking and Finance*, 22, 1193-1206.

[Web of Science®](#) | [Google Scholar](#)

ap Gwilym, O., Clare, A., & Thomas, S. (1998b). Price clustering and bid-ask spreads in international bond futures. *Journal of International Financial Markets, Institutes and Money*, 8, 377-391.

[Google Scholar](#)

Ates, A., & Wang, G. H. K. (2004, June/July). When size matters: The case of equity index futures. Paper presented at the annual meeting of the European Financial Management Association, Basel, Switzerland.

[Google Scholar](#)

Ball, C. A., Torous, W. A., & Tschoegl, A. E. (1985). The degree of price resolution: The case of the gold market. *Journal of Futures Markets*, 5, 29-43.

[Web of Science®](#) | [Google Scholar](#)

Barclay, M. (1997). Bid-ask spreads and the avoidance of odd-eighth quotes on the NASDAQ: An examination of exchange listing. *Journal of Financial Economics*, 45, 35-60.

[Web of Science®](#) | [Google Scholar](#)

Bessembinder, H. (1997). The degree of price resolution and equity trading costs. *Journal of Financial Economics*, 45, 9-34.

[Web of Science®](#) | [Google Scholar](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

[Web of Science®](#) | [Google Scholar](#)

Brown, P., Chua, A., & Mitchell, J. (2002). The influence of cultural factors on price clustering: Evidence from Asia-Pacific stock markets. *Pacific-Basin Finance Journal*, **10**, 307–322.

[Web of Science®](#) | [Google Scholar](#)

Christie, W. G., Harris, J., & Schultz, P. H. (1994). Why did NASDAQ market makers stop odd-eighth quotes?. *Journal of Finance*, **49**, 1841–1860.

[Web of Science®](#) | [Google Scholar](#)

Christie, W. G., & Schultz, P. H. (1994). Why do NASDAQ market makers avoid odd-eighth quotes?. *Journal of Finance*, **49**, 1813–1840.

[Web of Science®](#) | [Google Scholar](#)

Cooney, J., Van Ness, B. F., & Van Ness, R. A. (2003). Do investors prefer even-eighth prices? Evidence from NYSE limit orders. *Journal of Banking and Finance*, **27**, 719–748.

[Web of Science®](#) | [Google Scholar](#)

Goodhart, C., & Curcio, R. (1991). The clustering of bid–ask prices and spread in the foreign exchange markets (Discussion Paper No. 110). London: London School of Economics, Financial Markets Group.

[Google Scholar](#)

Grossman, S.J., Miller, M.H., Cone, K.R., Fischel, D.R., & Ross, D.J. (1997). Clustering and competition in asset markets. *Journal of Law and Economics*, **40**, 23–60.

[Web of Science®](#) | [Google Scholar](#)

Hameed, A., & Terry, E. (1998). The effect of tick size on price clustering and trading volume. *Journal of Business Finance and Accounting*, **25**, 849–867.

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

[Web of Science®](#) | [Google Scholar](#)

Hasbrouck, J. (1999). Security bid-ask dynamics with discreteness and clustering: Simple strategies for modeling and estimation. *Journal of Financial Markets*, 2, 1-28.

[Google Scholar](#)

Hasbrouck, J. (2003). Intraday price formation in US equity index markets. *Journal of Finance*, 58, 2375-2399.

[Web of Science®](#) | [Google Scholar](#)

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46, 1251-1271.

[Web of Science®](#) | [Google Scholar](#)

Hornick, J., Cherianand, J., & Zakay, D. (1994). The influence of prototypic values on the validity of studies using time estimates. *Journal of Market Research Society*, 36, 145-147.

[Google Scholar](#)

Ikenberry, D., & Weston, J. P. (2003). Clustering in US stock prices after deci-malization (working paper). Urbana-Champaign and Houston: University of Illinois at Urbana-Champaign and Rice University.

[Google Scholar](#)

Kandel, S., Saring, O., & Wohl, A. (2001). Do investors prefer round stock prices? Evidence from Israeli IPO auctions. *Journal of Banking and Finance*, 25, 1543-1551.

[Web of Science®](#) | [Google Scholar](#)

Karpoff, J. M. (1986). A theory of trading volume. *Journal of Finance*, 41, 1069-1087.

[Web of Science®](#) | [Google Scholar](#)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

[Web of Science®](#) | [Google Scholar](#)

Naidu, G. N., & Rozeff, M. S. (1994). Volume, volatility, liquidity and the efficiency of the Singapore Stock Exchange before and after automation. *Pacific-Basin Finance Journal*, 2, 23-42.

[Google Scholar](#)

Ni, S. X., Pearson, N. D., & Poteshman, A. M. (2005). Stock price clustering on option expiration dates. *Journal of Financial Economics*, 78(1), 49-87.

[Web of Science®](#) | [Google Scholar](#)

Osler, C. L. (2003). Currency orders and exchange rate dynamics: An explanation for the predictive success of technical analysis. *Journal of Finance*, 58, 1791-1820.

[Web of Science®](#) | [Google Scholar](#)

Parkinson, M. (1980). The extreme value method for estimating the variance of the rate of return. *Journal of Business*, 53, 61-65.

[Web of Science®](#) | [Google Scholar](#)

Schwartz, A., Van Ness, B. F., & Van Ness, R. A. (2004). Clustering in the futures markets: Evidence from S&P 500 futures contracts. *Journal of Futures Markets*, 24, 413-428.

[Web of Science®](#) | [Google Scholar](#)

Wang, G. H. K., Michalski, R. J., Jordan, J. V., & Moriarty, E. J. (1994). An intra-day analysis of bid-ask spreads and price volatility in the S&P 500 index futures market. *Journal of Futures Markets*, 14, 837-859.

[Web of Science®](#) | [Google Scholar](#)

Wang, G. H. K., Yau, J., & Baptiste, T. (1997). Trading volume and transaction costs in futures markets. *Journal of Futures Markets*, 17, 757-780.

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)

Manage Preferences

Accept All

Reject Non-Essential

ABOUT WILEY ONLINE LIBRARY

Privacy Policy

Terms of Use

About Cookies

Manage Cookies

Accessibility

Wiley Research DE&I Statement and Publishing Policies

HELP & SUPPORT

Contact Us

Training and Support

DMCA & Reporting Piracy

Sitemap

OPPORTUNITIES

Subscription Agents

Advertisers & Corporate Partners

CONNECT WITH WILEY

The Wiley Network

Wiley Press Room

Copyright © 1999-2026 John Wiley & Sons, Inc or related companies. All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.



This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. [Privacy Policy](#)



Manage Preferences

Accept All

Reject Non-Essential