



## Clustering in the futures market: Evidence from S&P 500 futures contracts

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### Abstract

We document trade price clustering in the futures markets. We find clustering at prices of x.00 and x.50 for S&P 500 futures contracts. While trade price clustering is evident throughout time to maturity of these contracts, there is a dramatic change when the S&P 500 futures contract is designated a front-month contract (decrease in clustering) and a back-month contract (increase in clustering). We find that trade price clustering is a positive function of volatility and a negative function of volume or open interest. In addition, we find a high degree of clustering in the daily opening and closing prices, but a lower degree of clustering in the settlement prices. © 2004 Wiley Periodicals, Inc. *Jrl Fut Mark* 24:413–428, 2004

### BIBLIOGRAPHY

Baird, J., Lewis, C., & Romer, D. (1970). Relative frequencies of numerical response in ratio estimation. *Perception and Psychophysics*, 8, 358–362.

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

Ball, C., Torous, W., & Tschoegl, A. (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 Nasdaq: An examination of exchange listings. *Journal of Financial Economics*, 45, 35–60.

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

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

---

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

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

---

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

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

---

Christie, W., & Schultz, P. (1999). The initiation and withdrawal of odd-eighth quotes among Nasdaq stocks: An empirical analysis. *Journal of Financial Economics*, 52, 409–442.

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

---

Colwell, P., Rushing, P., & Young, K. (1994). The rounding of appraisal estimates. *Illinois Real Estate Letter*, 8(2), 1–4.

[Google Scholar](#)

---

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

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

---

Edwards, A., & Harris, J. (2002). *Stepping ahead of the book (working paper)*. Washington, DC: Security and Exchange Commission.

[Google Scholar](#)

---

Furbush, D. (1995). *The Nasdaq market: Reconsidering the collusion hypothesis (mimeographed)*. Washington, DC: NASDAQ.

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

---

Godek, P. (1996). Why Nasdaq market makers avoid odd-eighth quotes. *Journal of Financial Economics*, 41, 465–474.

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

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

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

---

Harris, L. (1991). Stock price clustering and discreteness. *Review of Financial Studies*, 4, 389–415.

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

---

Huang, R., & Stoll, H. (1996). Dealer versus auction markets: A paired comparison of execution costs on Nasdaq and the NYSE. *Journal of Financial Economics*, 41, 313–357.

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

---

Jennings, R. (2001). Getting “pennied”: The effect of decimalization on traders' willingness to lean on the limit order book at the New York Stock Exchange. NNYSE Document 2001-01. New York: New York Stock Exchange.

[Google Scholar](#)

---

Kahn, C., Pennacchi, G., & Sophranzetti, B. (1999). Bank deposit rate clustering: Theory and empirical evidence. *Journal of Finance*, 54(6), 2185–2214.

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

---

Kaufman, E., Lord, M., Reese, T., & Volkman, J. (1949). The discrimination of visual number. *American Journal of Psychology*, 62, 498–525.

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

---

Kawaller, I., Koch, P., & Peterson, J. (2001). Volume and volatility surrounding quarterly redesignation of the lead S&P 500 futures contract. *Journal of Futures Markets*, 21, 1119–1149.

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

---

Kleidon, A., & Willig, R. (1995). *Why do Christie and Schultz infer collusion from their data? (mimeographed)*. Menlo Park, CA: Cornerstone Research.

[Google Scholar](#)

---

Laux, P. (1995). The bid-ask spreads of Nasdaq stocks that quote on even eighths. Unpublished manuscript, Case Western Reserve University, Cleveland, OH.

[Google Scholar](#)

---

Mitchell, J. (2001). Clustering and psychological barriers: The importance of numbers. *Journal of Futures Markets*, 21, 395–428.

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

---

Niederhoffer, V. (1965). Clustering in stock prices. *Operations Research*, 13, 258–265.

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

---

Palmon, O., Smith, B., & Sopranzetti, B. (1998). Clustering in real estate prices: Patterns and impacts on demand. Unpublished manuscript, Rutgers, The State University of New Jersey.

[Google Scholar](#)

---

Schindler, R., & Kirby, P. (1997). Patterns of rightmost digits used in advertised prices: Implications for nine-ending effects. *Journal of Consumer Research*, 24, 192–201.

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

---

Schindler, R., & Wiman, A. (1989). Effect of odd pricing on price recall. *Journal of Business Research*, 19, 165–177.

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

---

Sopranzetti, B., & Datar, V. (2002). Price clustering in foreign exchange spot markets. *Journal of Financial Markets*, 5, 411–417.

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

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