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Article

Stock Market Efficiency and Economic Efficiency: Is There a Connection?

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ABSTRACT

In a capitalist economy, prices serve to equilibrate supply and demand for goods and services, continually changing to reallocate resources to their most efficient uses. However, secondary stock market prices, often viewed as the most "informationally efficient" prices in the economy, have no direct role in the allocation of equity capital since managers have discretion in determining the level of investment. What is the link between stock price informational efficiency and economic efficiency? We present a model of the stock market in which: (i) managers have discretion in making investments and must be given the right incentives; and (ii) stock market traders may have important information that managers do not have about the value of prospective investment opportunities. In equilibrium, information in stock prices will guide investment decisions because managers will be compensated based on informative stock prices in the future. The stock market indirectly guides investment by transferring two kinds of information: information about investment opportunities and information about managers' past decisions. However, because this role is only indirect, the link between price efficiency and economic efficiency is tenuous. We show that stock price efficiency is not sufficient for economic efficiency by showing that the model may have another equilibrium in which prices are strong-form efficient, but investment decisions are suboptimal. We also suggest that stock market efficiency is not necessary for investment efficiency by considering a banking system that can serve as an alternative institution for the efficient allocation of investment resources.

Web of Science® Google Scholar

Barro, Robert J., 1990, The stock market and investment, *Review of Financial Studies* **3**, 115–131.

Web of Science® Google Scholar

Bosworth, Barry, 1975, The stock market and the economy, *Brookings Papers on Economic Activity* **2**, 257–300.

Google Scholar

Boyd, John, and Edward Prescott, 1986, Financial intermediary-coalitions, *Journal of Economic Theory* **38**, 211–232.

Web of Science® Google Scholar

Bresnahan, Timothy, Paul Milgrom, and Jonathan Paul, 1992, The real output of the stock exchange, in Griliches Zvi, Ed.: *Output Measurement in the Service Sectors* (University of Chicago Press).

Web of Science® Google Scholar

Chandler, Alfred D., 1977, *The Visible Hand: The Managerial Revolution in American Business* (Harvard University Press, Cambridge).

Google Scholar

Diamond, Douglas, 1984, Financial intermediation and delegated monitoring, *Review of Economic Studies* **51**, 393–414.

Web of Science® Google Scholar

Diamond, Douglas, and Robert E. Verrecchia, 1981, Information aggregation in a noisy rational expectations economy, *Journal of Financial Economics* **9**, 221–235.

Dow, James, and Gary Gorton, 1996, Stock market efficiency and economic efficiency: Is there a connection?, Working paper, The Wharton School, University of Pennsylvania.

Google Scholar

Dow, James, and Gary Gorton, 1995, Profitable informed trading in a simple general equilibrium model of asset pricing, *Journal of Economic Theory* **67**, 327–369.

Web of Science® | Google Scholar

Dow, James, and Gary Gorton, 1994a, Arbitrage chains, *Journal of Finance* **49**, 819–849.

Web of Science® | Google Scholar

Dow, James, and Gary Gorton, 1994b, Noise trade, delegated portfolio management, and economic welfare, Journal of Political Economy, forthcoming.

Google Scholar

Dow, James, and Rohit Rahi, 1996, Informed trading, investment, and welfare, Working paper, European University Institute.

Google Scholar

Fama, Eugene F., 1976, *Foundations of Finance* (Basic Books, New York).

Google Scholar

Fama, Eugene F., and Merton H. Miller, 1972, *The Theory of Finance* (Dryden Press, Hinsdale).

Web of Science® | Google Scholar

Fischer, Stanley, and Robert C. Merton, 1984, Macroeconomics and finance: The role of the stock market, *Carnegie-Rochester Conference Series on Public Policy* **21**, 57–108.

Glosten, Lawrence, and Paul Milgrom, 1985, Bid, ask, and transaction prices in a specialist market with heterogeneously informed traders, *Journal of Financial Economics* **14**, 71–100.

Web of Science® | Google Scholar

Gorton, Gary, and Frank Schmid, 1996, Universal banking and the performance of German firms, NBER Working paper 5453.

Google Scholar

Grant, Simon, Stephen King, and Ben Polak, 1996, Informational externalities, share-price based incentives, and managerial behavior, *Journal of Economic Surveys* **10**, 1–21.

Web of Science® | Google Scholar

Hayashi, Fumio, 1982, Tobin's marginal and average *q*: A neoclassical interpretation, *Econometrica* **50**, 213–224.

Web of Science® | Google Scholar

Hayek, Friedrich A., 1945, The use of knowledge in society, *American Economic Review* **35**.

Web of Science® | Google Scholar

Hellwig, Martin F., 1980, On the aggregation of information in competitive markets, *Journal of Economic Theory* **22**, 477–498.

Web of Science® | Google Scholar

Henrotte, Philippe, 1992, Market behavior with endogenous production and asymmetric information, Stanford University, Working paper.

Google Scholar

Kihlstrom, Richard, and Steven Matthews, 1990, Managerial incentives in an entrepreneurial stock-market model, *Journal of Financial Intermediation* **1**, 57–79.

Google Scholar

Korajczyk, Robert A., Deborah J. Lucas, and Robert L. McDonald, 1990, Understanding stock price behavior around the time of equity issues, in R. Glenn Hubbard, Ed.: *Asymmetric Information, Corporate Finance and Investment* (NBER and University of Chicago Press).

Google Scholar

Kyle, Albert S., 1985, Continuous auctions and insider trading, *Econometrica* **53**, 1315–1335.

Web of Science® | Google Scholar

Leland, Hayne, 1992, Insider trading: Should it be prohibited?, *Journal of Political Economy* **100**, 859–887.

Web of Science® | Google Scholar

Leland, Hayne, 1978, Information, managerial choice and stockholder unanimity, *Review of Economic Studies* **45**, 527–534.

Web of Science® | Google Scholar

Leland, Hayne, and David Pyle, 1977, Informational asymmetries, financial structure, and financial intermediation, *Journal of Finance* **32**, 371–387.

Web of Science® | Google Scholar

Lucas, Deborah J., and Robert L. McDonald, 1990, Equity issues and stock price dynamics, *Journal of Finance* **45**, 1019–1043.

Web of Science® | Google Scholar

Tobin, James, 1969, A general equilibrium approach to monetary theory, *Journal of Money, Credit, and Banking* **1**, 15–29.

Google Scholar

Welch, Ivo, 1994, The cross-sectional determinants of corporate capital expenditures: A multinational comparison, Working paper, UCLA.

Google Scholar

Citing Literature