What is an event study? An event study, in economics/finance/accounting research, is an analysis of whether there was a statistically significant reaction in financial markets to past occurrences of a given type of event that is hypothesized to affect public firms' market values.

To go further:

The event that affects a firm's market value may be within the firm's control, such as the event of the announcement of a stock split. Or the event may be outside the firm's control, such as the event of a legislative act being passed, or a regulatory ruling being announced, that will affect the firm's future operations in some way.

The basic recipe for an event study is:

- (1) to collect a number of such events, i.e. a list of firms and dates, perhaps by running a literature search to find news announcements,
- (2) to run programs that look up stock price changes for those firms in periods around those dates, and also changes in a market-wide index in the same periods (e.g., collecting this data from databases such as the huge CRSP database of daily stock market returns for U.S. firms from July 1962 through Dec. 31, 1997),
- (3) to run additional programs that evaluate whether event-period price changes for the list of firms are abnormally large, compared to usual returns for those firms and controlling for market-wide effects on all firms' returns during the event periods, and,
- (4) optionally, to additionally run further regressions to explain the abnormal returns in (3), by external firm characteristics.

A large academic literature has built up reflecting debate on how to do the evaluation (3) in a statistically sound way. Issues, for example, include how to measure what usual returns are for a firm, how to summarize returns during an event-period, how to control for market-wide effects.

Selected general sources on the event study methodology (in alphabetical order by first author) include:

- Armitage, Seth "Event Study Methods and Evidence on Their Performance", Journal of Economic

- Binder, John J., professor in Dept. of Finance, University of Illinois, Chicago, has written a comprehensive review: "The Event Study Methodology Since 1969". Published in _Review of Quantitative Finance and Accounting_.
- Glascock, John L. and Imre Karafiath, "Statistical Inference in Event Studies Using Multiple Regression" in Alternative Ideas in Real Estate Investment, Arthur L. Schwartz and Steven D. Kapplin, editors. This is volume 2 of Real Estate Research Issues, sponsored by the American Real Estate Society. Published by Kluwer in 1995.
- Marais, Laurentius and Katherine Schipper, "Applications of Event Study Methods in Litigation Support" in _Litigation Services Handbook_, edited by Peter B. Frank, Michael J. Wagner and Roman L. Weil (New York: John Wiley and Sons, 1991 or 2nd edition, 1995). This is apparently based on a teaching note by Katherine Schipper, "Notes on event studies; prepared for Business 431-81; Fall quarter, 1992", itself an unpublished, very helpful non-technical explanation of event studies. This work includes discussion of event study approaches to practical applications such as in litigation support.


K. R. Sawyer, professor in the Department of Accounting and Finance, University of Melbourne, Australia. "How Eventful Are Event Studies?" 1997 working paper. Email address k.sawyer @ emofac.unimelb.edu.au.


Classic event study references are included in Andrew Karolyi's syllabus for his Winter 1995 course taught at Ohio State, Fin 921: Empirical Research in Finance at http://www.cob.ohio-state.edu/dept/fin/921/karolyi/outline.htm, as of 5 August 1997 and still available as of 2/99. Karolyi is now at University of Western Ontario (2/99). In the Ohio State course, Karolyi included the following articles under Event Study Methodology (with the Boehmer article required reading for his course and the others supplementary):


A similar online list with some interesting references is the Professor Frank Finn's reading list for University of Queensland course 455 in business finance, at http://www.commerce.uq.edu.au/subjects/co455/texts.html (as of 2/99). Some other important papers are:

- Dimson, Elroy, 1979 "Risk Measurement When Shares are Subject to Infrequent Trading", vol 7, 197-226.

Programs for event studies

- Eventus is a commercial software package developed and sold by finance professor Arnold Cowan.
- Pam Peterson's FIN6842 exercise on Event Study at FSU.
- Olivier Ledroit at UCLA has another event study exercise in course Management 239C.
- Glascock and Karafiath (1995, cited above) include some SAS code for their "short-cut" version of an event study: they suggest running one regression spanning beta estimation and event windows, with dummy variables on each event day.

- Patricia Dechow and Thomas Lys and Jowell S. Sabino, "Using long-window return studies in addressing recognition issues: An evaluation of alternative research approaches", July 1996. Dechow, Lys, and Sabino (more specifically: Patricia Dechow and Thomas Lys and Jowell S. Sabino, "Using long-window return studies in addressing recognition issues: An evaluation of alternative research approaches", July 1996) promise availability of a SAS simulation program (which is related to, but does not include an event study?).

Data for event studies:

- CRSP: Most academic research employing event studies on U.S. securities market data uses daily or monthly stock returns from the CRSP (Center for Research in Security Prices) data. For information on CRSP data and access programs, see CRSP Data Access and Analysis webpage which surveys all known CRSP-related information resources published and/or on the WWW. These include: the CRSP-L email list and FAQ webpage; university webpages on how to access CRSP; papers and technical notes on access and analysis of CRSP data.
Event study applications are too numerous to list, but a starter sampling is as follows:

- That required reporting of annual toxic chemical releases by U.S. firms cause stock market reactions, a pioneering demonstration of environmental management effect in the stock market:


- That corporate news announcements do NOT move the market, in the Mexican stock market, due probably to insider trading:


Event study applications not yet published in a peer-reviewed journal, whose drafts are available on the web in full text:

- Subramani, Mani, and Eric Walden "The DOT COM EFFECT: The Impact of E-commerce Announcements on the Market Value of Firms"  

- Jeannie D. Johnston, "A closer examination of the Foreign GAAP reconciliation issue"  
  http://www.usc.edu/dept/accounting/aaanational/paper1b.html (as of 2/99)

- That International Monetary Fund (IMF) bailouts affected equity values of banks invested in South Korea:

  "The Impact of IMF Bailouts on International Bank Creditors' Equity Values--An Event Study of South Korea's Case", by Zhaohui Zhang http://chimera.acs.ttu.edu/~ogzzh/paper1.html (as of 2/99)

Note event studies of the efficiency of markets may be classified at G14 in the JEL classification system. Please send suggestions, comments, and requests.

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