

## MEASURING SECURITY PRICE PERFORMANCE\*

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Event studies focus on the impact of particular types of firm-specific events on the prices of the affected firms' securities. In this paper, observed stock return data are employed to examine various methodologies which are used in event studies to measure security price performance. Abnormal performance is introduced into this data. We find that a simple methodology based on the market model performs well under a wide variety of conditions. In some situations, even simpler methods which do not explicitly adjust for marketwide factors or for risk perform no worse than the market model. We also show how misuse of any of the methodologies can result in false inferences about the presence of abnormal performance.

### 1. Introduction and summary

The impact of particular types of firm-specific events (e.g., stock splits, earnings reports) on the prices of the affected firms' securities has been the subject of a number of studies. A major concern in those 'event' studies has been to assess the extent to which security price performance around the time of the event has been abnormal — that is, the extent to which security returns were different from those which would have been appropriate, given the model determining equilibrium expected returns.

Event studies provide a direct test of market efficiency. Systematically nonzero abnormal security returns which persist after a particular type of event are inconsistent with the hypothesis that security prices adjust quickly to fully reflect new information. In addition, to the extent that the event is unanticipated, the magnitude of abnormal performance at the time the event actually occurs is a measure of the impact of that type of event on the wealth of the firms' claimholders. Any such abnormal performance is consistent with market efficiency, however, since the abnormal returns would only have been

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