LTA 1/00

Antti Niini - M.Sc. (Econ.), LL.M. - Analyst, Goldman Sachs International Shareholder Wealth and Volatility Effects of Stock Splits. Some Results on Data for the Helsinki and Stockholm Stock Exchanges

The paper examines the effects of stock split announcements and executions at the Helsinki and Stockholm Stock Exchanges during 1985/1997. The Finnish sample includes 19 companies and the Swedish 90 companies that have undertaken a stock split during the research period.

The empirical part of the paper examines abnormal returns around the announcement and execution dates of stock splits separately on both markets. Furthermore, possible shifts in volatility are examined. The study uses standard event-study methodology. Abnormal returns are calculated as residuals from the market, mean adjusted and market mean adjusted models. The volatility shift is studied using an F-test. Further tests are conducted to investigate if the return series exhibits ARCH-processes. A dummy variable is added to the ARCH models to investigate a possible volatility shift.

The results obtained in the empirical study support prior international evidence that a stock split is not a -non-event- as finance theory would lead us to believe. Statistically significant abnormal returns are detected for the announcement of stock splits on both markets. The announcement effect seems not to have changed over time when the 1980"s are compared with the 1990"s on both markets. Further analysis revealed some differences in the announcement returns when sorted by split factor. The announcement of a stock split is thus interpreted as a positive signal from the management and the effect seems to have persisted over time. The results for the Stockholm Stock Exchange are similar to those obtained by Liljeblom (1989) for an earlier research period (1977/1985) and indicate that the announcement effect has not changed much over the years on the Swedish markets. However, the Finnish results that showed a large announcement effect are pioneering since there is no previous research on the stock split announcement effect for the Finnish markets.

The tests of abnormal returns around the ex-dates of stock splits indicate that an ex-date effect exists at the Stockholm Stock Exchange but not at the Helsinki Stock Exchange. The existence of an ex-date effect on the Swedish markets and the non-existence of it on the Finnish markets are both pioneering results, which have not been studied earlier.

The empirical results for the volatility shift indicate that post-split volatility is higher in about 50% of the stocks on both markets. The F-test could not reject the null hypothesis of equal variances pre- and post-split on aggregate level but succeeded in the rejection on about half of individual stocks. The tests for ARCH-processes revealed that the Finnish event window returns around the ex-date followed an ARCH(1) process and the Swedish a GARCH(1,1) process. The tests of the character of the volatility shift indicated that a step dummy variable describing a permanent shift in volatility provided most significant results. The results were similar to those obtained using the F-test. The shift in volatility seems to have been much stronger in the Swedish markets prior to 1993 but has disappeared since. On the other hand, on the Finnish markets, the effect is still present. The results for the volatility shift confirmed earlier research on the Swedish markets and are pioneering results for the Finnish markets