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Industry Portfolios and Macroeconomic News. A Traditional Approach

This paper concentrates on the relationship between macroeconomic fundamentals and the stock market in Finland by asking the following question: What role does the macroeconomic news play in explaining the movements in stock prices? This question is important for both practitioners and academic economists. Practitioners are perhaps interested in using the information about macroeconomic fundamentals in pricing assets or alternatively making decisions about future real investments. On the other hand, academics may be interested in this question because answering it will help to identify some sources of systematic risks, and to consider whether these risks are priced on the stock market.

The major contribution of this paper is to document empirical evidence of the cross-sectional relation between industry portfolios and macroeconomic news. Special emphasis is placed on investigating the responses during different exchange rate regimes. The two-stage ordinary least squares estimation methodology is followed (i.e., first, a vector autoregression model is used to identify the unexpected components of each macroeconomic indicator; and second, to consider these unanticipated news components in explaining the changes in industry stock returns).

This paper extends previous studies in several ways. First, industry portfolios are used as dependent variables since there may be distinct effects across industries. This is especially important in the Helsinki Stock Exchange, where Nokia Corporation dominates the aggregate stock market. This could bias the results by masking some important dependencies. Industry level analysis can also provide further insight about how different industries respond to news and whether these responses are significantly different from the stock market on average. Furthermore, the Finnish stock market is traditionally dominated by export-oriented, cyclical industries, but it would be interesting to investigate how also non-cyclical industries respond to macroeconomic news.

Second, the stability of the parameter estimates is investigated by dividing the sample period into sub-samples and testing whether the response coefficients in the pricing model are the same during different phases of exchange rate regimes. Third, publication lags in economic statistics are considered as well as the recent time series data available is used to update the findings of earlier studies. Finally, from a methodological point of view, using vector error correction models to generate market expectations and thus news extends the existing literature. The advantage of the error correction model is that it captures both short-term dynamics (market expectations) as well as long-run equilibrium relations (revisions in market expectations) at one pass.

The results show that a systematic relationship between stock returns and macroeconomic news is evident, although the explanatory power of news seems to be rather low. Across industries, news jointly explains from 2.4 to 15.5 (11.4) percent of the variance in (market) returns, and mainly monetary news affects stock returns. In addition, during the fixed (floating) exchange rate regime, a weaker than expected real exchange rate is bad (good) news for the stock market. In the whole sample, the estimation results do favor a common response, but during sub-periods, some industries respond differently from the market suggesting distinct intrinsic industry-specific characteristics.