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The Effect of Financial Stress on the Stock Return of Accepted Industries in Tehran Stock Exchange

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EXTENDED ABSTRACT
INTRODUCTION
Since increasing stress in financial markets is important for analysis and forecasting of economic activities and can be reflected in many variables of the financial market, recognizing the main sources of financial stress and its effects on various economic activities and sectors is one of the most important areas in the financial discussions. Considering the importance of this issue, in the present research, the financial stress index in Iran will be calculated, and then the short-term and long-term relationship between financial stress and stock returns of top industries in the Tehran Stock Exchange by using the panel method in the form of a multivariate model will be evaluated during the period of 1384-1398 using daily data. The analysis of this relationship in the long and short term will be investigated using Co integration and Panel Error Correction Model (PECM) and dynamic ordinary least squares (DOLS) methods will be used to investigate the long-term dynamic relationship between model variables. It should be noted that in order to more accurately analyze, in addition to investigation the effects of total financial stress index FSI (which is a combined index of financial stress in the capital, currency and money markets) on the stock returns of the studied industries, the financial stress index of each markets (money, capital and exchange market) has been entered into the model separately and we have investigated the effect of financial stress index in each of studied financial markets on the stock returns.

METHODOLOGY

In this research, in order to investigate the effect of financial stress, oil price and other independent variables on the stock returns of the studied industries, in the form of a multivariate panel model and the analysis of long-term and short-term coefficients, using Pedroni panel data method (Pedroni 1999&2004) and The panel error correction model (PECM) is used, and for this purpose the following is considered:

$$SR_{it} = \alpha + \beta_1 FSI_{it} + \beta_2 INF_{it} + \beta_3 INT_{it} + \beta_4 RER_{it} + \beta_5 OIL_{it} + \varepsilon_{it} \quad (1)$$

SR: stock returns of the top industries in the Tehran Stock Exchange. This variable is calculated using the following: (Maditinos., & Theriou, 2011)

$$R_{i,t} = \log(T_{i,t} / T_{i,t-1}) \tag{2}$$

Ti,t is the stock price index of industry i in period t.
FSI: Financial Stress Index
INF: inflation rate
INT: Interest rate
RER: real exchange rate

$$RER = ER . \frac{CPI^*}{CPI} \tag{3}$$

    ER: Nominal exchange rate
    CPI*: Foreign CPI
    CPI: Domestic CPI
OIL: oil price

FINDINGS

The results show that in all four estimated models, the effect of the financial stress index on the stock returns of industries is negative and statistically significant. The estimated coefficients for the oil price variable are positive in all four models, which are statistically significant in all models.The estimated coefficients for the inflation rate variable in all models have a negative sign and are statistically significant.The estimation results indicate the positive effect of the interest rate on the stock returns of the studied industries.Based on the obtained results, the exchange rate in all models will have a positive effect on the stock returns.

CONCLUSION

The results indicate that in all four estimated models, the effect of financial stress index on industry stock returns is negative and statistically significant. In other words, financial stress in the studied markets, including the capital market, money market and foreign exchange market has a negative impact on the stock returns of industries and decrease stock returns of these industries. Also, the research findings show that in all estimated models, oil prices, exchange rates and interest rates have a positive effect on stock returns of the studied industries in Iran. In addition, the findings show that the estimated coefficients for the inflation rate variable are negative in all models and are statistically significant.

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