

## **Application of Benford's Law in Analysis of Frankfurt Stock Exchange Index (DAX) Percentage Changes**

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**Abstract :** Application of Benford's Law is very rarely covered in the field of stock market analysis, especially in percentage change of stock market indices. Deutscher Aktien Index (DAX) is very important stock market index of Frankfurt Deutsche Börse which serves as underlying basis for large number of financial instruments. It is calculated for selected 30 German blue chips stocks. In this paper, Benford's Law first digit test is applied on 10 year DAX daily percentage changes in order to check compliance. Deviations of 10 year DAX percentage changes set as well as distortions of certain subsets from Benford's Law distribution are detected. It is possible that deviations are the outcome of speculations; and psychological influence should not be eliminated.

**Keywords :** Benford's Law, DAX, index percentage changes, stock market

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