

Tendency of correlations in foreign exchange markets

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Although the stock price follows a non-Gaussian distribution or a fat-tailed distribution, we cannot predict the next price because this has even one probability of rising up or falling down. However, a certain stock price has a clear negative tendency of temporal correlations. It was reported that a foreign exchange follows the random walk but its absolute return shows a strong positive correlation. In this work, we report that a certain price, belonging to a specific business group, shows the negative correlation. Especially, the raw-material developing business has a strong negative tendency of correlation in daily returns. The firms belonging to this business are known to have a long pre-production time to starting production. Therefore, their prices rise up abruptly just after the production and then follow the global trend of the commodity price. This relation supports the negativity of a temporal correlation in returns. To this end, we investigate the correlation of returns belonging to the diverse businesses and find out the relevance to foreign exchanges and commodity prices.

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