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Topic of Research : Intraday Dynamic Relationships between Spot, Futures

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Keywords: Futures and Options markets, Cointegration, Price Discovery, Volatility Spillover,

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Findings

The findings of this study provide valuable insights into the relationship and dynamics among the spot, futures, and options markets for Nifty 50 and five of its major constituent stocks. The results indicate that there is a long-run relationship between the spot, futures, and options markets for the Nifty 50 index and its major constituent stocks suggest by the cointegration analysis. The error correction mechanism reveals that the spot market plays a significant role in restoring equilibrium in the long run. Additionally, the Granger causality test indicates that there is a feedback relationship and significant information transmission between the spot, futures, and options markets, implying that they influence each other. The results also highlight the dominance of the futures market in terms of influencing the options and spot markets. Hasbrouck Information Share reveals that price discovery largely happens in futures market followed by options and spot market in order. The impulse response analysis confirms that the futures market exhibits a stronger and more immediate reaction to its own innovations compared to the spot and options markets. Variance decomposition analysis supports the notion that the futures market plays a dominant role in these markets. The result of connectedness returns shows that mostly futures market influences the options and spot markets. Similar results are found for all major five Nifty 50 constituents' stocks for spillover return relationships between spot, futures and options markets. Regarding the trading volume relationships, the unit root tests suggest that all markets are stationary, indicating no long-term trend in trading volumes. The VAR Granger causality and Block Exogeneity Wald tests reveal that the spot market has a larger impact on call and put options and futures markets in terms of trading volume.