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## High Frequency Trading, Dark Pools, and Call for a New Stock Exchange By Shodhan Babu, LLM Candidate, 2016 | November 17<sup>th</sup> 2015

The volatility of the stock market requires no introduction. It has long been acknowledged that the volatility is as much a reflection of <u>non-economic</u> factors as economic ones. An understanding of trends, based on both economic and non-economic factors, and the time that investors take to react to changes in the stock market can be the crucial difference between gains and losses in the stock market.

It is common for investors to buy stocks of companies in which they perceive the prize to go up, in small tranches, in order to ensure that the price does not go up at once, which would occur if investors purchased large blocks of shares at once. In order for this to work effectively and fairly, all investors have to be presented with the ability to place purchase or sell orders at prices that are <u>uniformly communicated</u> to all investors at one single point in time. Until 1998 this proposition was fairly routine since buyers and sellers traded on the floor of the stock exchanges.

In 1998, the Securities and Exchange Commission authorized electronic stock exchanges thereby allowing them to compete with traditional stock exchanges. The intent was to allow anyone with a desktop and an Internet connection to trade on the stock market. This opened up the markets and increased <u>volumes</u> in trading substantially and to the point where the closing of a prominent stock exchange did not halt trading substantially. In addition to increasing volumes, it gave rise to "<u>dark pools</u>" in which Investors can trade in large volumes without tipping the broader market thereby contributing to information asymmetry and volatility in the market.

High Frequency Trading involved communication between stock exchanges and the computers that people were using to trade on the stock market. The stock exchanges were required to communicate (a) stock prices and (b) buy and sell orders, placed from computers located at variable distances from the stock exchanges. This distance from the stock exchanges ensured that computers located closer, and in a straight line, from stock exchanges received information pertaining to prices milliseconds before the computers located further away did. The larger firms with more sophisticated computers exploited this discrepancy, in milliseconds, by darting back and forth between exchanges and exploiting prices, which were not yet updated on the <u>slower</u> exchanges.

These issues have given rise to calls for a <u>new stock exchange</u>, which addresses information asymmetry through speed bumps thereby minimizing advantages gained purely on the basis of speed.