

Title: From Prediction Market to Financial Market: The Big Data Issues of Trading in Finance

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Abstract: Suppose one would like to estimate the outcome distribution of an uncertain event in the future, one way to do this is to ask for a collective estimate from many people, and prediction markets can be used to achieve such a task. By selling securities corresponding to the possible outcomes, one can infer traders' collective estimate from the market price if it is updated properly. In this talk, we would like to use this technique to study the behavior of market belief in financial market, which may be one of the biggest prediction market in the world. We focus on the trading information of futures and option in Taiwan market index. Two issues are considered. First, is it possible to use the information of open interest of option and futures to predict the distribution of market index? Second, when we have accurate estimate of market distribution, how to make profit? We briefly introduce our solutions in this talk.