1038-60-46 Libor Pospisil (1p2185@columbia.edu), Department of Statistics, New York, NY 10027, Jan Vecer (vecer@stat.columbia.edu), Department of Statistics, New York, NY 10027, and Mingxin Xu* (mxu2@uncc.edu), Department of Mathematics and Statistics, Charlotte, NC 28223. Tradeable Measures of Risk.

The main idea of this paper is to introduce Tradeable Measures of Risk as an objective and model independent way of measuring risk. The present methods of risk measurement, such as the standard Value-at-Risk supported by Basel II, are based on subjective assumptions of future returns. In order to achieve an objective measurement of risk, we introduce a concept of Realized Risk which we define as a directly observable function of realized returns. Predictive assessment of the future risk is given by Tradeable Measure of Risk – the price of a contract which pays its holder the Realized Risk for a certain period. When Tradeable Measures of Risk of this type are priced and quoted by the market (even over-the-counter, or traded internally within a financial institution), one does not need a model to calculate values of a risk measure since it will be observed directly from the market. We use an option pricing approach to obtain dynamic pricing formulas for these contracts, where we make an assumption about the distribution of the returns. We also discuss the connection between Tradeable Measures of Risk and the axiomatic definition of Coherent Measures of Risk, and provide some convergence results. (Received January 16, 2008)