The increasing evolution of social systems leads to increased immediacy of action and future unpredictability. The center views such social systems as nonlinear "complex systems" and aims to analyze mathematical structures and promote creative problem solving collaboration across industry, government, and academia. Analyses of financial markets will be one of the most important research objectives. Frequent market instability and turmoil impact various social, business, and government initiatives. Using advanced time series and network analysis methods, we will initially explore the scientific basis for effective "prediction and control" of financial crises.