Big Data and Securities Markets
NBER Call for Papers – Virtual Conference December 3-4, 2020

Big data technologies enable investors in financial markets to process information more quickly and provide information that was not previously available. As the data environment has become increasingly "big" and data analysis has become increasingly reliant on powerful computational tools, the information that different market participants extract and use has grown more varied and diverse. At one extreme, high-frequency traders (HFTs) implement minimalist algorithms optimized for speed. At the other, some market participants apply sophisticated machine-learning techniques that take hours or even days to run.

To promote research on the emerging issues that relate to big data and financial markets, the National Bureau of Economic Research (NBER), with the generous support of the National Science Foundation and in collaboration with the Review of Financial Studies (RFS), will convene a virtual research conference to showcase research that uses, or considers the implications of, datasets that are large, unstructured, or high-dimensional. This could include datasets on consumer transactions, market microstructure, corporate profit and loss statements. social media postings and search engine requests, and satellite images.   The program will be organized by three NBER Research Associates: Itay Goldstein of the University of Pennsylvania, Chester Spatt of Carnegie Mellon University, and Mao Ye of the University of Illinois.

Research themes that will be emphasized at the conference include, but are not limited to:

• **Big data and trading:** the analysis of transaction level data; theoretical frameworks that guide empirical analysis; machine-human interactions and machine-machine interactions in financial markets; algorithms as products.
• **Big data and investment:** the analysis of high-dimensional data using machine learning techniques; the rise of machines in asset management; the impact of liquidity and price discovery on asset returns.
• **Big data and corporate decisions:** the impact of big data on corporate decisions; feedback effects between financial markets and firms; the impact of big data on market efficiency and production efficiency.
• **Big data and regulations:** the impact of big data on privacy and fairness; the regulation of algorithms and winner-take-all markets; big data and the detection of improper market conduct.

The organizers welcome submissions of both empirical and theoretical research papers, and encourage submissions from scholars who are early in their careers, who are not NBER affiliates, and who are from under-represented groups in the financial economics profession. To be considered for inclusion on the program, papers must be uploaded by Sunday, September 27, 2020 to:

http://conference.nber.org/confer/2020/BDSMf20/call.html

Papers that already have been accepted for publication or that will be published by the time of the conference are not eligible. Authors chosen to present papers will be notified in October 2020.

Papers that are submitted for presentation at the conference may also be submitted to the Review of Financial Studies under its dual review system at no cost. Papers rejected at any stage of the dual review process are not considered to have been "rejected" at the RFS, which means that the authors may submit a future version to the journal, even if the paper is not included in the conference. For a paper to be considered under the dual submission option, it may not be under review at or under invited revision from any journal, including the RFS until the author has been notified of the outcome of the dual submission process. The details of the dual submission program may be found at http://sfs.org/dualsubmissionpolicy.

Questions about the meeting may be addressed to confer@nber.org.