NYU Stern School of Business Department of Information, Operations & Management Sciences INFORMATION SYSTEMS RESEARCH SEMINAR

TOPIC: Can We Predict the Winner in a Market with Network Effects? Competition in

Cryptocurrency Market

SPEAKER: Hanna Halaburda (NYU Stern)

DATE: Thursday, April 14th, 2016

TIME: 12:30-1:45PM *Lunch will be served at 12:15PM.

PLACE: KMC 3-50

ABSTRACT

We analyze how network effects affect competition in the nascent cryptocurrency market. We do so by examining early dynamics of exchange rates among different cryptocurrencies. While Bitcoin eventually dominates this market, our data suggest no evidence of a winner-take-all effect early in the market. Indeed, for a relatively long period, a few other cryptocurrencies competing with Bitcoin (the early industry leader) appreciated much more quickly than Bitcoin. The data in this period are consistent with the use of cryptocurrencies as financial assets (popularized by Bitcoin), and not consistent with winner-take-all dynamics. Toward the end of our sample, however, things change dramatically. Bitcoin appreciates against the USD, while other currencies depreciate against the USD. The data in this period are consistent with strong network effects and winner-take-all dynamics. This trend continues as at the time of writing.

Joint work with: Neil Gandal.

BIO

Hanna Halaburda joined New York University Stern School of Business as a Visiting Professor of Management in September 2015. Before joining Stern, Professor Halaburda was an Assistant Professor at the Harvard Business School and an economist at Bank of Canada.

Professor Halaburda's research uses game theory to study how technology influences network effects and interactions in the marketplace and how these changes affect business models. Much of her work focuses on competition between platforms, e.g. Apple's iPhone vs. Android or eHarmony vs. Match. Most recently, her research applies platform competition concepts to analyze the development of digital currencies.

Professor Halaburda received an M.A. in Philosophy from Warsaw University, an M.A. in Economics from Warsaw School of Economics, and a Ph.D. in Economics from Northwestern University. More information can be found on her <u>website</u>.