Impact of supply chain network structure on FDI: Theory and evidence*

Ryo Itoh\textsuperscript{i}

Kentaro Nakajima\textsuperscript{ii}

\textbf{Abstract:} This study investigates how structure of supply chain network of the domestic market influences FDI of firms embedded in the network. We firstly describe a binary choice of firms whether invest or not by a coordination game on fixed network with incomplete information on part of firms’ profit, and addressed that the unique equilibrium of the game is represented by Katz-Bonacich centrality measure which captures both direct and indirect effects from the network. Furthermore, we also give empirical tests for the theoretical hypothesis with a large sized disaggregated data of Japanese firms, and verified that Katz-Bonacich centrality of each firm has a significantly positive effect on its FDI even when the sector-specific fixed effects and other attributes are controlled, as our theory anticipated.

\textit{Key words: FDI, network game, supply chain, Katz-Bonacich centrality.}

JEL Classification: D20, D85, F23.

\textsuperscript{*}Very preliminary.
\textsuperscript{i}Nagoya-city University, Yamanohata 01, Mizuho-ku, Nagoya-city, Aichi-prefecture, Japan. 467-8501. E-mail: itoh@econ.nagoya-cu.ac.jp
\textsuperscript{ii}Tohoku University, Kawauchi 27-1, Aoba-ku, Sendai, 980-8576 Japan. E-mail: knakajima@econ.tohoku.ac.jp