## Firm Heterogeneity and the Structure of Export and FDI Evidence from Japanese Manufacturing Industries

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## Abstract

The percentage of exporters and multinational enterprises (MNEs) varies substantially across industries. We extend the firm heterogeneity model presented in Helpman et al. (2004) to derive testable predictions about the prevalence of these internationalized modes. The model indicates that intra-industry firm heterogeneity and R&D intensity play large roles in the inter-industry variation of the number of internationalized firms. We investigate whether these factors as well as import tariff affect the structure of export and foreign direct investment (FDI) using Japanese industry-level data. We obtain results that are consistent with the model. First, industries with larger productivity dispersion have a larger percentage of non-MNE exporters, a larger percentage of MNEs, and a larger percentage of the sum of exporters and MNEs. Second, MNEs are heavily concentrated in R&D intensive industries. In addition, we reveal that lower import tariffs raise the percentage of exporters and MNEs in line with Melitz (2003).

Keywords: Firm heterogeneity; Multinationals; Exports; Foreign direct investment

JEL Classification: F1, F23

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