

April 2010

## How Do Chinese Industries Benefit from Knowledge Spillover?

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### Abstract

How does the increasing R&D activity by the Foreign Invested Enterprises (FIEs) contribute to the development of Chinese industries? We use a comprehensive industry-level data to conduct one of the first empirical evaluations of such knowledge spillovers from FIEs in China. In order to clarify their very nature, we observe such spillovers to two types of innovations by Chinese domestic firms: Total Factor Productivity (TFP) and patent application. We evaluate such spillovers according to FIEs' ownership structure, the origin of foreign fund and the type of their activity. We find substantial intra-industry or "horizontal" knowledge spillovers promoting the patent application of domestic firms, whereas we do not find robust evidence supporting the spillovers to their TFP. On the other hand, significant inter-industries spillovers to both TFP and patent application are found through forward linkage. The extent of knowledge spillovers differ according to the difference in ownership structure and origin of funds of the FIEs performing R&D. For instance, the joint-venture FIEs with origin other than Hong Kong, Macao and Taiwan (mostly OECD origin) contribute most importantly to the patent application by domestic firms in same industry.

Key Words: China, Knowledge spillover, R&D, Innovation

JEL Classification: O12,O13,F23,O53