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**Research Report**

## Export upgrading and growth in China: the prerequisite of domestic embeddedness

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## Export upgrading and growth in China: the prerequisite of domestic embeddedness\*

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### Introduction

In China, as in many other developing countries, the attraction of Foreign Direct Investments (FDI) inflows has been contemplated as a powerful tool to promote quality upgrades to the product structure and consequently to boost economic growth. This research relying on data from Chinese cities invalidates these expectations. More precisely, the authors assess to what extent the growth gains from the complexity of goods produced by firms depend on whether they are domestic or foreign. . . . / . . .

\* For a longer and more technical version of this paper see Sandra Poncet and Felipe Starosta de Waldemar, "Export upgrading and growth: the prerequisite of domestic embeddedness", FERDI Working Paper 57, 2012.

.../... They find that product sophistication is not conducive to economic growth when it emanates from foreign firms which are mostly engaged in processing trade activities. This invites to be cautious about the gains to be expected from an internationalization strategy based on special economic zones as they mainly attract foreign firms involved in export-platform FDI.

### ► FDI: the great expectations

FDI inflows have often been contemplated as one powerful tool to promote quality upgrades to the country product structure. The first channel is direct since the quality of goods produced by foreign-invested firms is typically higher than those previously exported by domestic firms in the host country. Second, the presence of multinationals may facilitate the product upgrading of domestic firms through various spillovers. Similar theoretical arguments apply to the promotion of processing trade, which involves the assembly of imported inputs into a final good for export. Apart from the direct effect of producing more sophisticated goods, processing trade may generate knowledge spillovers within firms and between firms.

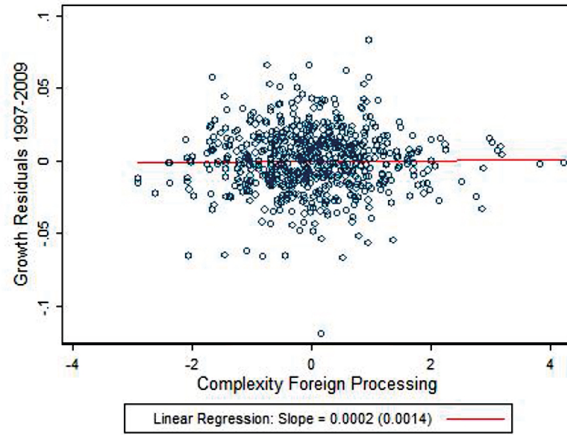
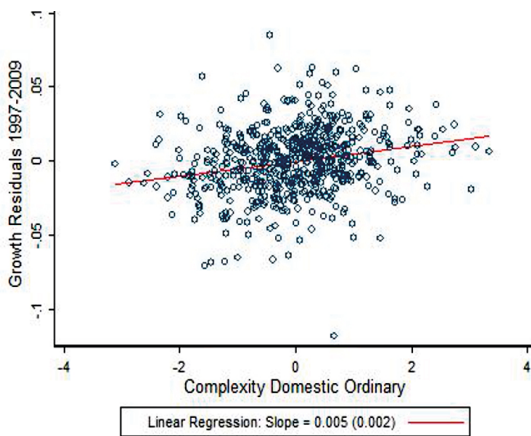
However there are a number of factors which may undermine these potential technological spillovers from FDI in practice, especially in the context of developing countries. Technology diffusion and adoption may fail to come about due to limited domestic absorption capacity or in the absence of substantial and well-directed technological efforts by foreign and domestic firms. An additional related impediment is that foreign technologies may not be appropriate to the economic and social conditions of developing countries.

### ► China's approach to FDI

China is probably one of the most well-known examples of active FDI attraction strategy. Since 1979, the Chinese government has been actively promoting FDI inflows through tax and other policy incentives in the hope that the presence of foreign firms helps to jumpstart the structural transformation process. China's approach to internationalization illustrates well the country's general strategy of "disarticulation" in which successive sections of the economy were separated from the planned core so as to avoid disruption. Foreign investment was confined to tax-favored special economic zones that had, initially, almost no links to the remainder of the economy. This "enclave" approach was a way to move toward export promotion without fundamentally overturning the structure of protection in place for domestic manufacturers. Another important dimension of the strategy was the establishment of two separate trading regimes: the traditional ordinary trade regime and the export-processing trade which benefited early on from extremely open regulations and the exemption from duties on imported inputs. Over time there has been a proliferation of a great variety of zones<sup>1</sup> around the country and a reduction of the sectoral and geographical restrictions to foreign investment. Despite the recent WTO-induced trade liberalization a strong bias remains towards the processing of import-intensive manufactures for export that has not encouraged foreign investment in projects with strong linkages to the rest of the economy.

1. They include among other designations, open ports, bonded zones, economic and technological development zones, high-tech industrial zones, and export processing zones.

► Challenging results are found for China



In their study, the researchers investigate the implications of the Chinese specific investment regime by looking at the growth gains from upgrading. A by now well-established empirical result is that countries specializing in more sophisticated goods subsequently grow faster. The authors examine the statistical association between the economic complexity and subsequent economic performance by appealing to variations across over 200 Chinese cities between 1997 and 2009. Complexity is computed for each city based on detailed (product-level) export information coming from the Chinese Customs. The following figure provides a visual summary of the conditional relationship between GDP per capita growth and complexity in Chinese cities when differentiating between firm-ownership type (domestic or foreign) and trade regime (ordinary or processing)<sup>2</sup>.

While there is a clear positive relationship between complexity and GDP per capita growth for domestic firms engaged in ordinary trade,

the relationship is insignificant for foreign firms engaged in processing trade. Similar conclusions are reached using more precise econometric techniques: the level of capabilities available to domestic firms is an important driver of China's economic growth but **no direct gains emanate from the complexity of goods produced by foreign firms.**

► Growth gains from upgrading are not unconditional

The findings of Sandra Poncet and Felipe Starosta de Waldemar that growth gains from improved technology only come about when the latter is developed by domestic-owned firms and embedded in ordinary trade cast doubt on the capacity of China-like “enclave” approach to internationalization to successfully build up local innovation capacities. For these economists, “China’s deliberate choice, by limiting local embeddedness, has reduced potential spillovers and hampered the emergence of growth gains from processing and foreign activities”.

2. It uses data on GDP per capita growth between 1997 and 2009 split into three 4-year sub-periods after controlling for the log of initial GDP per capita, year fixed effects and city fixed effects.

...../..... These results suggest caution for the many developing countries that are currently questioning which policy measures can help them best to produce high productivity goods. Expected gains via technological transfers from FDI-based strategies do not materialize systematically. Structural and geographical disconnections between domestic ordinary activities and those based on imported technology and foreign affiliates can impede technological diffusion. Findings on Ireland where export-platform FDI dominates suggest similarly that spillovers from foreign to domestic

firms are very weak<sup>3</sup>. The absence of the expected spillovers has important repercussions on the sophistication-growth nexus: the apparent upgrading of a country's exports could be a statistical mirage. This could only reflect the advances of foreign firms or processed inputs and not signal any enhanced capacity to produce (and export) more complex products by domestic firms. Sustained productivity gains of domestic firms instead require a complex mix of indigenous innovation efforts and the presence of appropriate institutions and innovation systems.

3. Frances Ruane and Ali Uğur, 2005. «Foreign direct investment and productivity spillovers in Irish manufacturing industry: evidence from plant level panel data.» *International Journal of the Economics of Business*, vol. 12(1), pages 53-66.



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