

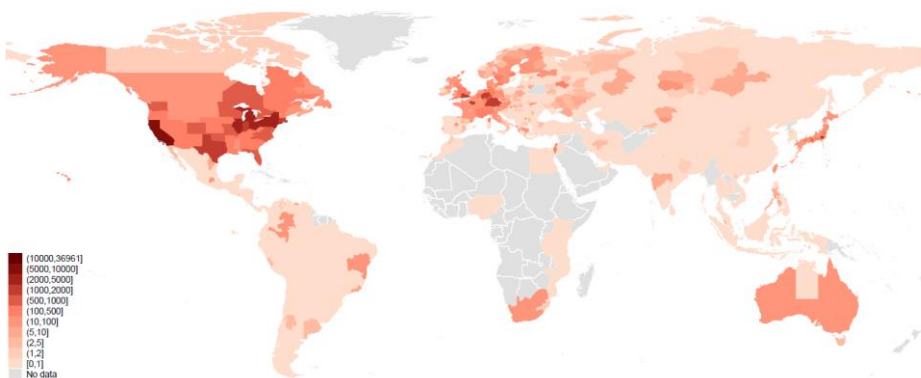
Foreign Investment and innovation in regions across the globe

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Innovation around the world

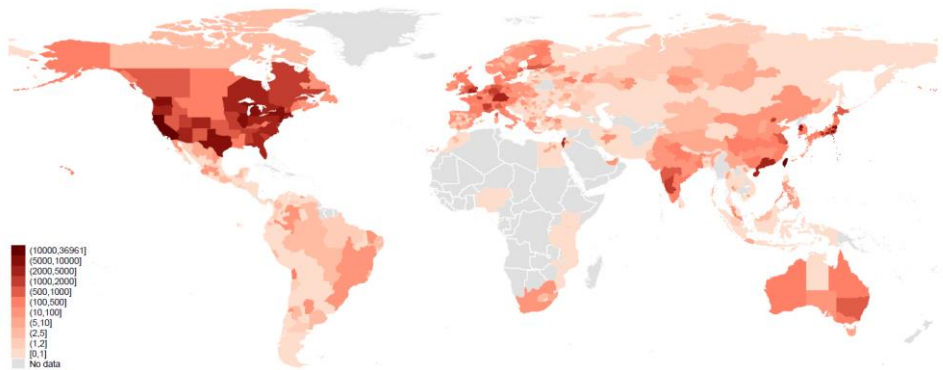
1975



Regional Patent Count – Own Elaboration - USPTO data

Innovation around the world

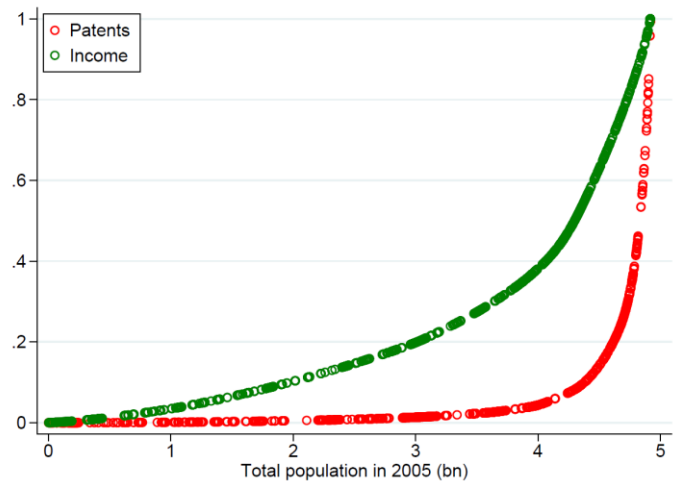
2012



Regional Patent Count – Own Elaboration - USPTO data

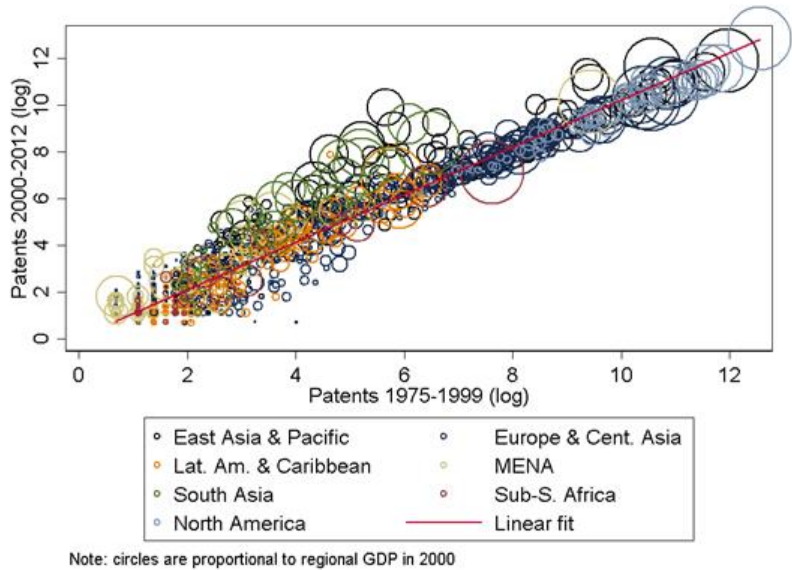
Innovation around the world:

Regional Income vs. Patents

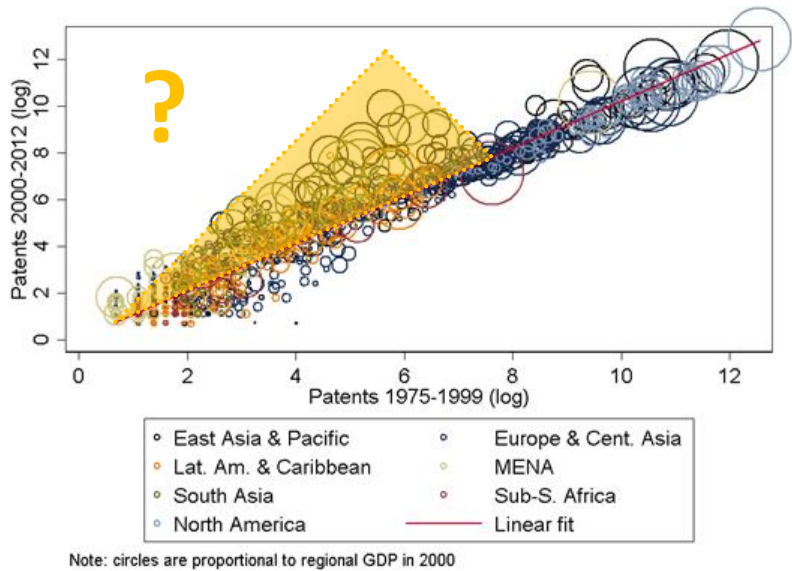


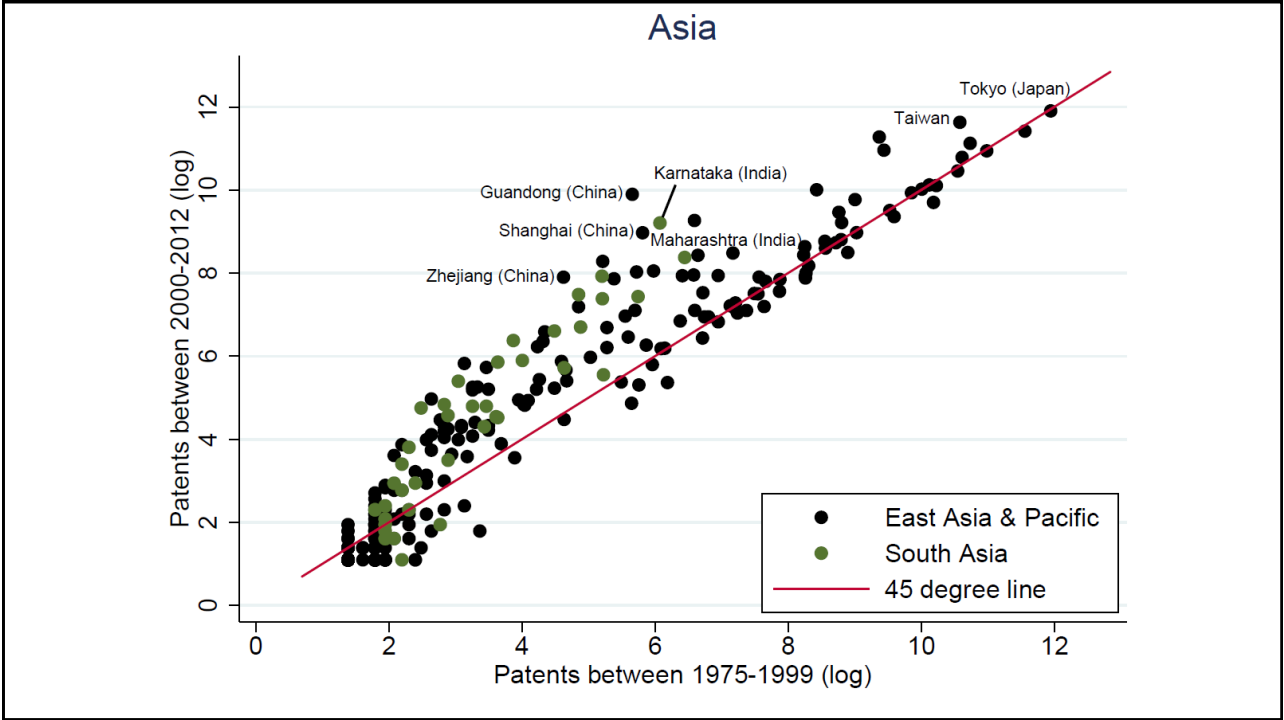
Own Elaboration (US States Excluded) - USPTO data

Innovation and the Middle Income Trap ...



... some regions escape the trap!





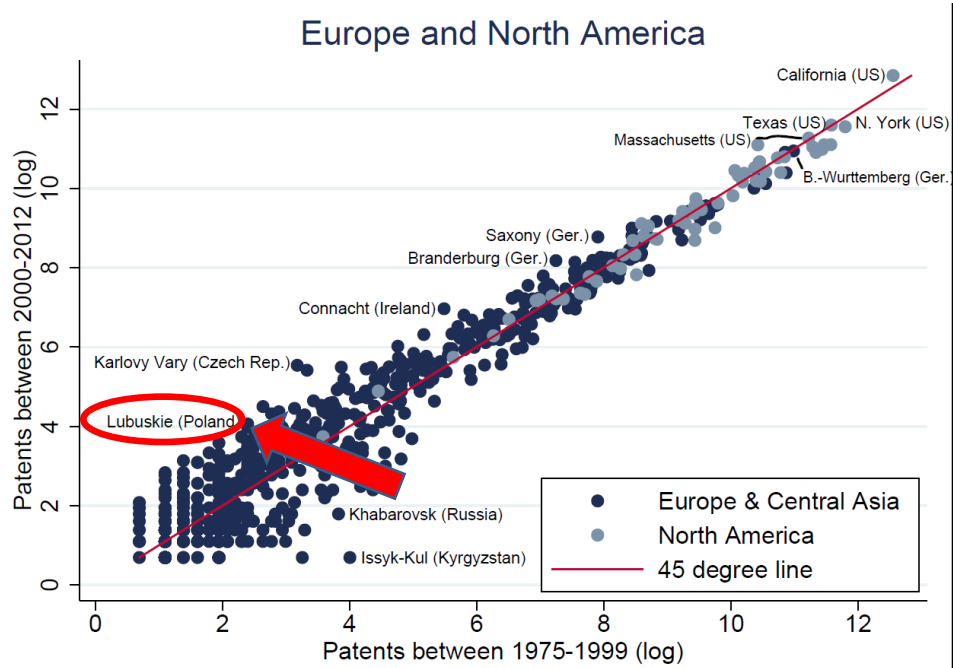
Guangzhou 2017



Bangalore 1999



Bangalore 2017



Lubuskie 1994



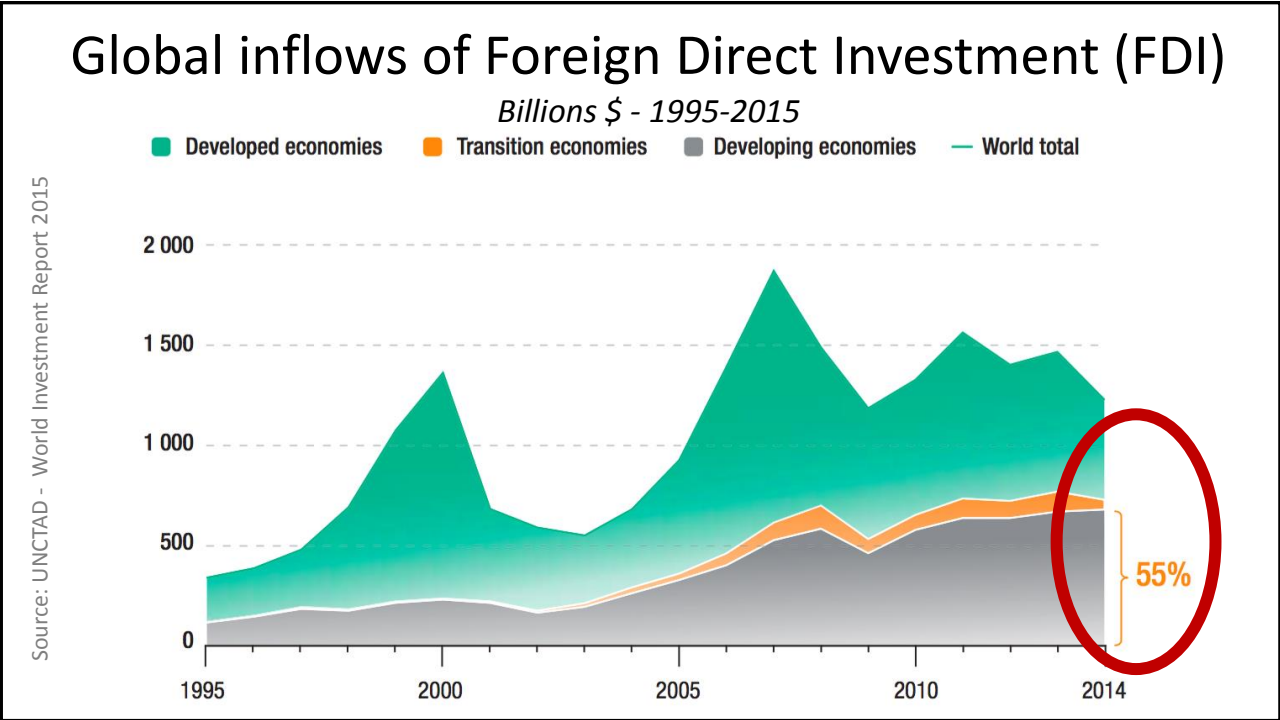
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Lubuskie 2017



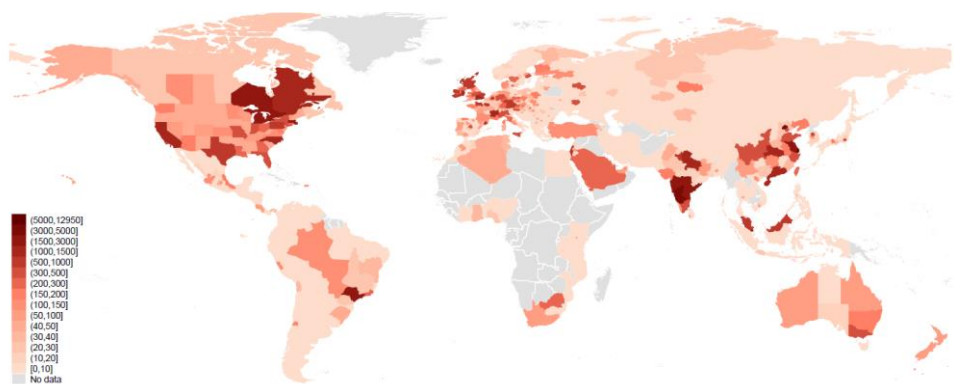
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Some regions have escaped ... How?



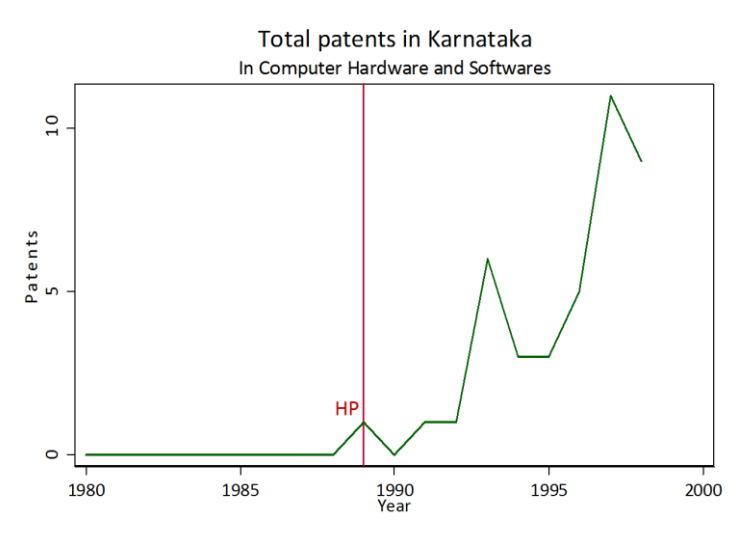
“Between 2000 and 2015 the number of MNE R&D centres in emerging countries grew by a factor of five, while in the Triad countries this number merely doubled”
Global Innovation Index Report, 2016

Foreign Investment in R&D activities 2004-2014

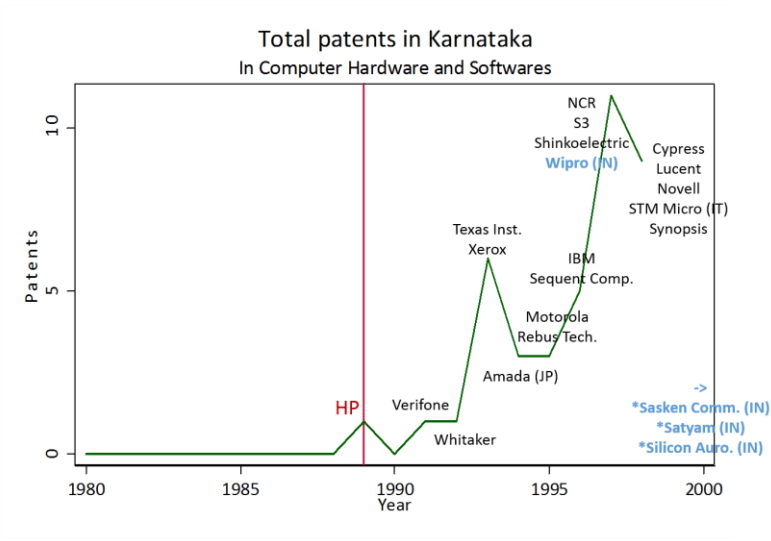


Inward FDI projects, Regional Cumulative Capex, Millions \$ – Own Elaboration – FDI Markets Data

HP in Bangalore

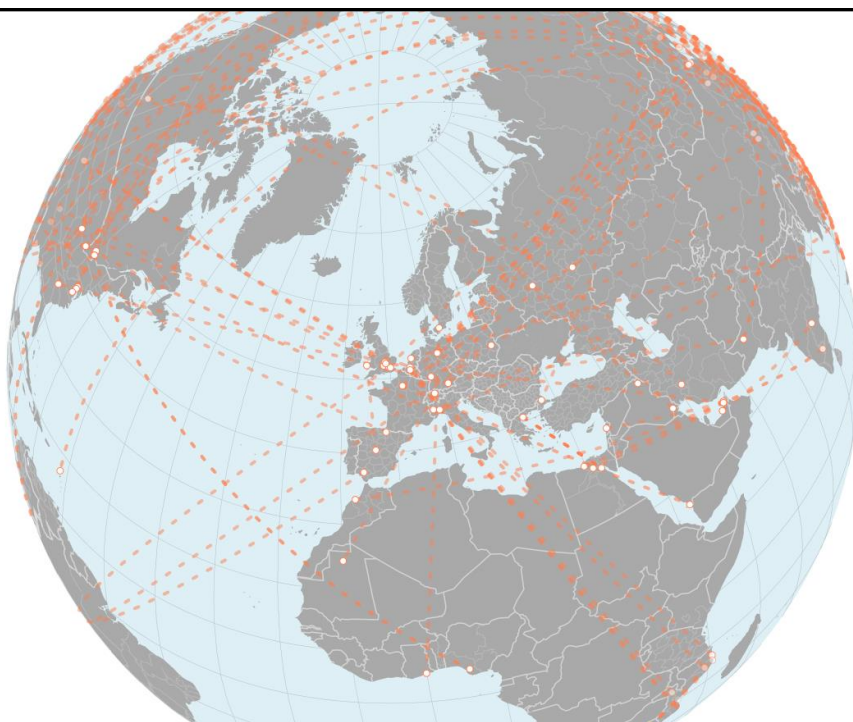


HP in Bangalore



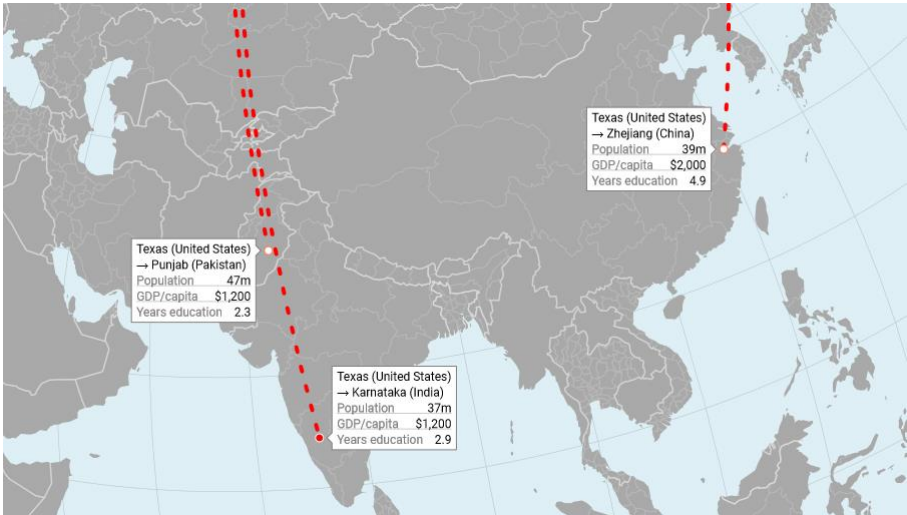
FDI to 'escape' the trap?

- **Crescenzi, Dyevre & Neffke** looked into the innovation performance of 1,528 regions, from 83 countries between 1975 and 2012
- We relied on **US Patent and Trademark Office data** on 3.6 million distinct inventors, 6.0 million patents from all over the world
- Patents in 1,240 3-digit patent classes
- 'Matched' regions receiving for the very first time a foreign firm pursuing innovative activities in their economy with a region very similar in terms of its observable characteristics and economic pre-trends but that did NOT receive any foreign investment leading to innovation



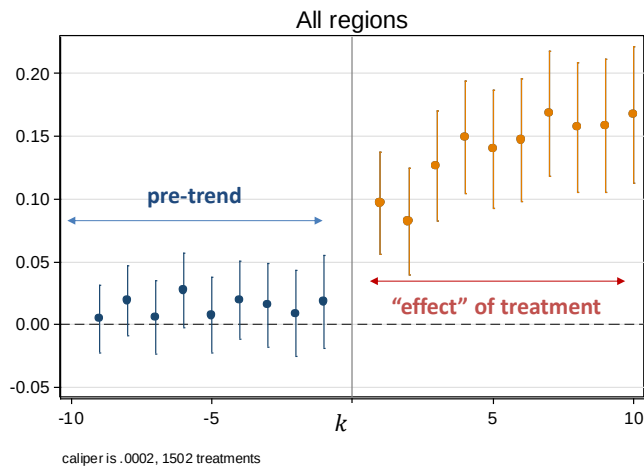


E.g. Texas Instruments in Bangalore



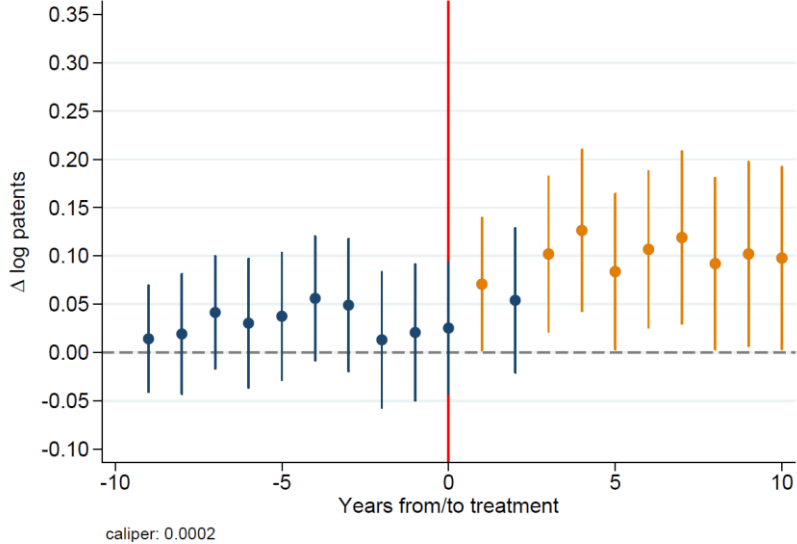
Difference-in-Differences

Patents by all firms



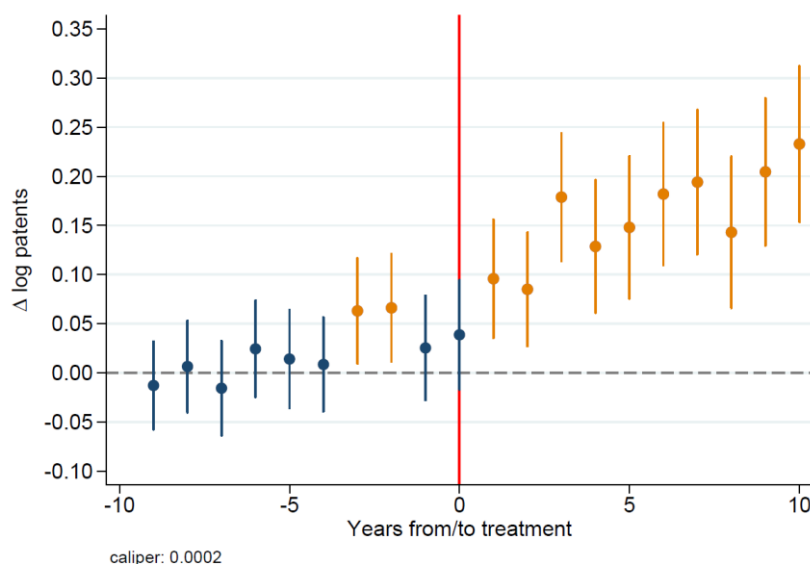
Difference-in-Differences

*Patents by **all** firms – **Top 5% MOST INNOVATIVE Foreign Investing Companies***



Difference-in-Differences

Patents by *all* firms – **Bottom 80% Foreign Investing Companies**



Not all Foreign Firms are good partners

- It's not the usual suspects that matter!
- The top tech giants – that all countries and regions fight to attract (at a huge cost) – are less likely to generate local innovation
- Why?
 - We showed that they are more effective in retaining their staff and less likely to hire local workers (less circulation on the labour market)
 - New ideas generated by the 'giants' are less likely to be used and absorbed by local firms (technological distance)

Points for discussion

- Escaping the Middle Income Trap is far from easy ... but some regions and cities make it to the top
- It is hard to make it alone
- There is no alternative to openness and internationalisation
- The 'usual suspects' are not always the most helpful
- Regions and cities should embrace globalisation with a critical attitude and make evidence-based decisions on their future

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Foreign Direct Investment and the world regions. Where? Why? And for Whom?

Economists have long seen innovation and technological progress as some of the most powerful drivers of economic development and wealth. Therefore, in order to assess the impact of institutions on their future economies we looked at innovation in cities across the globe. One crude way to measure the innovative capacity of cities and regions is to count the number of patents granted to their residents/inventors. Based on this statistic, local economies are extremely unequal in their innovation potential. The figures on the globe represent regional patent counts in 2012. While some regions are innovation hubs, most of the emerging land has no patent at all.

Click on the image above to visualise global economic flows and their impacts on regions (opens a new tab).

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