



Centre for Sustainable
Structural Transformation
SOAS UNIVERSITY OF LONDON

BABBAGE
FORUM

Session 2: Data tools for industrial policy

Reflections, perspectives and themes for discussions

- Which evidence? Reflections on industrial policy data efforts and other initiatives (EU and beyond)
- Which types of evidence for what purpose? Different perspectives and the need to engage with context-specific policy learning (beyond M&E)
- What are the key policy questions where we need better evidence?

Industrial policy evidence – preliminary reflections

- Beyond industrial policy is back
 - Never left, goes regularly underground and resurfaces in moments of crisis, combining elements of continuity and discontinuity
- Difficult to develop evidence due to IP variety and changes in:
 - **rationales** (and their mix and supporting narratives domestically/international),
 - **scale** (quantum of finance & service provision),
 - **scope** (range of policy domains from Supply to Demand, Domestic and Regional/International)
 - **strategic directionality** (instrument design, conditionality, carrots and sticks, implementation capability...) and
 - **strategic interdependencies** (proactive, reactive and retaliatory measures and triggering factors – e.g. financial crisis, Made in China 2025, IRA, trade tit-4-tat)
- More evidence, different types of evidence are needed to learn about the evolving global landscape, global impact and national/regional impact of IPs

- **Which evidence? Reflections on industrial policy data efforts and other initiatives (EU and beyond)**
- Which types of evidence for what purpose? Different perspectives and the need to engage with context-specific policy learning (beyond M&E)
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Global Trade Alert and NIPO .1

- Evidence is never neutral, and questions are theory framed & driven
- GTA and NIPO builds on one specific theory framework which sees industrial policy as interventions distorting the functioning of free open markets, hence a focus on:
 - Impact on trade flows (direct and dynamic impact – i.e. tit-4-tat)
 - Impact on FDIs
- **NIPO acknowledges limits of GTA, expands its evidence in terms of policy scope, still challenges remain** when we move from ‘counting policies’ and we want to analyse how IP really work in each country:
 - Key shortcoming: **Industrial policy can only be understood as ‘package of interactive measures’** (Amsden, 1989/2001; Stiglitz, 1996; Chang, 2010; Andreoni, 2016) combining measures that promote and reduce competition, sometimes at the same time, and whose overall effectiveness depends on alignment, coordination and synchronisation

Global Trade Alert and NIPO .2

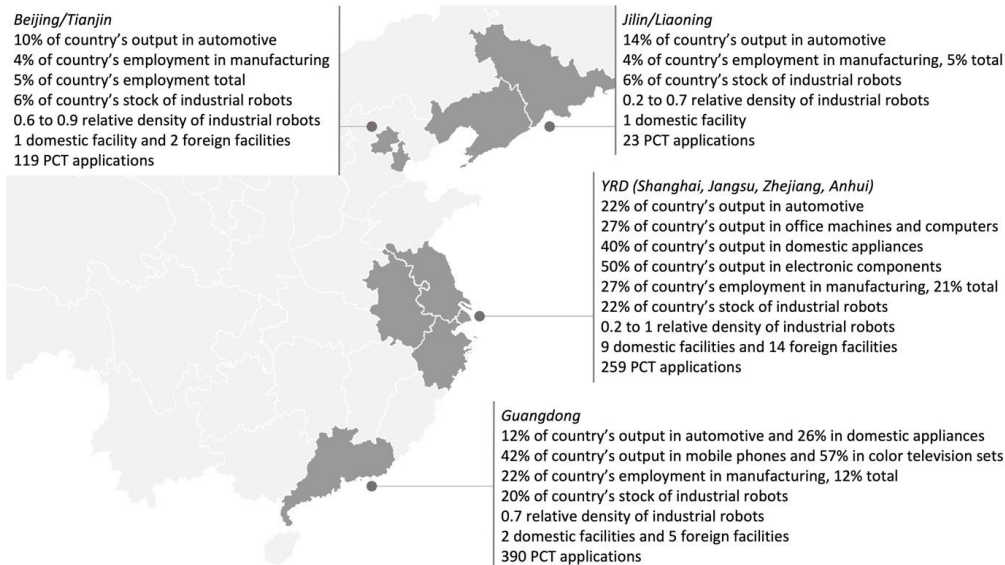
- NIPO acknowledges limits of GTA, expands its evidence in terms of policy scope, still challenges:
 - **What else is left out?**
 - Coverage from 2023 and missing ‘legacy measures’ often the most effective – e.g. SBIR/STTR in the US, but also service based/indirect subsidies – e.g. Aerospace Growth Partnership in the UK in 2013, recent NGEU investments in GH2)
 - Non-tariff barriers are becoming more and more relevant (e.g. CBAM)
 - SOEs and pervasive use of golden shares
 - **IP instrument design matters** greatly in terms of their impact and time of impact / functional form of impact – e.g. IRA fiscal quick cycle vs NGEU longer cycles
 - **Risk of potential false positives** (differences between announcement and implementation, especially when multiple level of IP financing and governance are involved – e.g. China push for robotisation example

Global Trade Alert and NIPO .2 example

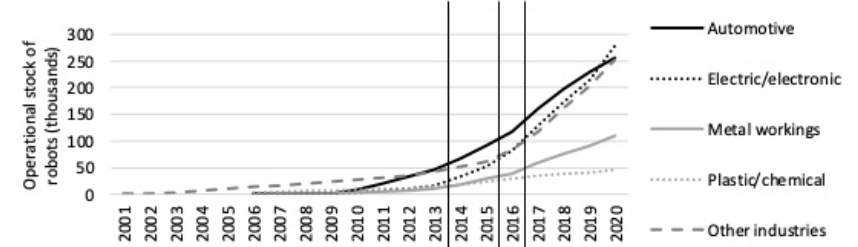
Andreoni et al. 2024 in *Competition and Change*

National and multi-scalar initiatives:

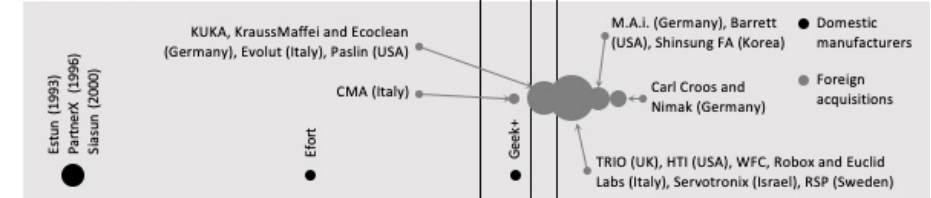
- Germany: Industrie 4.0
- EU: KETs, KETs Pilot lines, Digital Industrial Policy
- US (Obama): DARPA, Robotics Initiative, National Quantum Initiative
- **China: Made in China 2025 (and multi-scalar IPs)**
- US (Biden): Endless Frontier Act 100billion for NSF



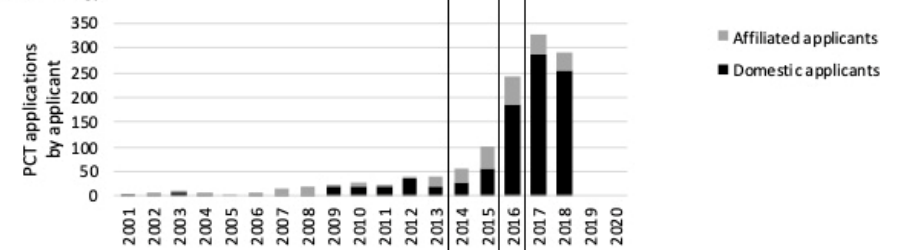
A: Adoption



B: Production



C: Technology



D: Policy

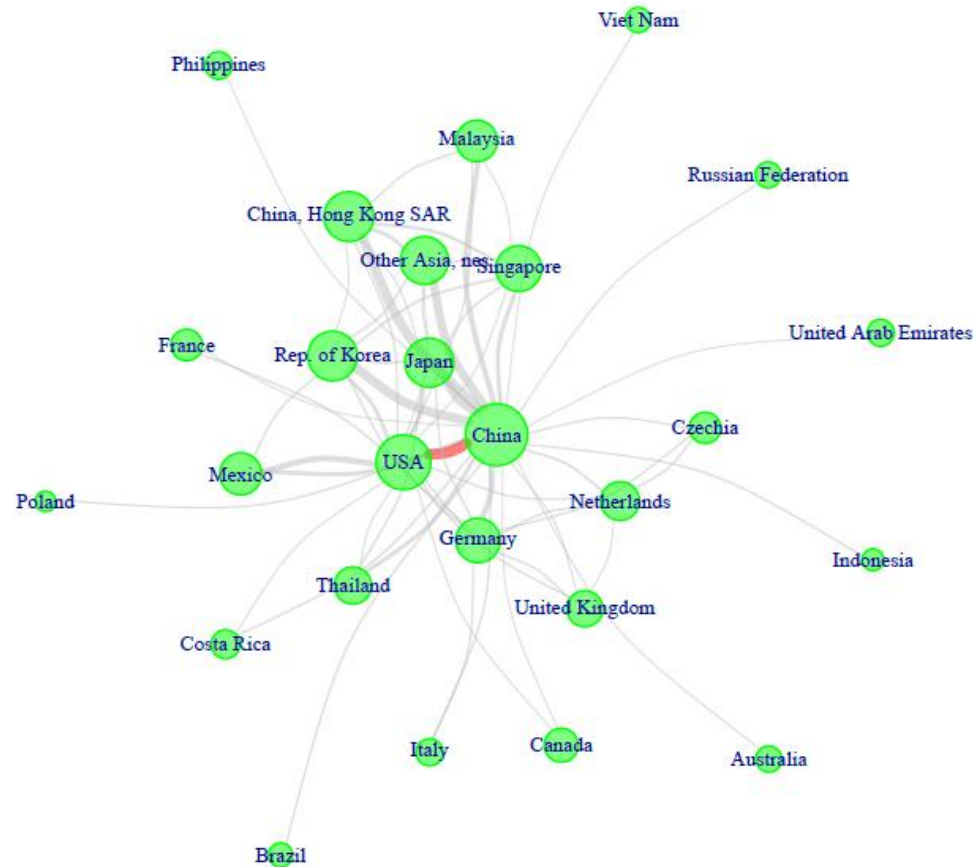


Global Trade Alert and NIPO .3

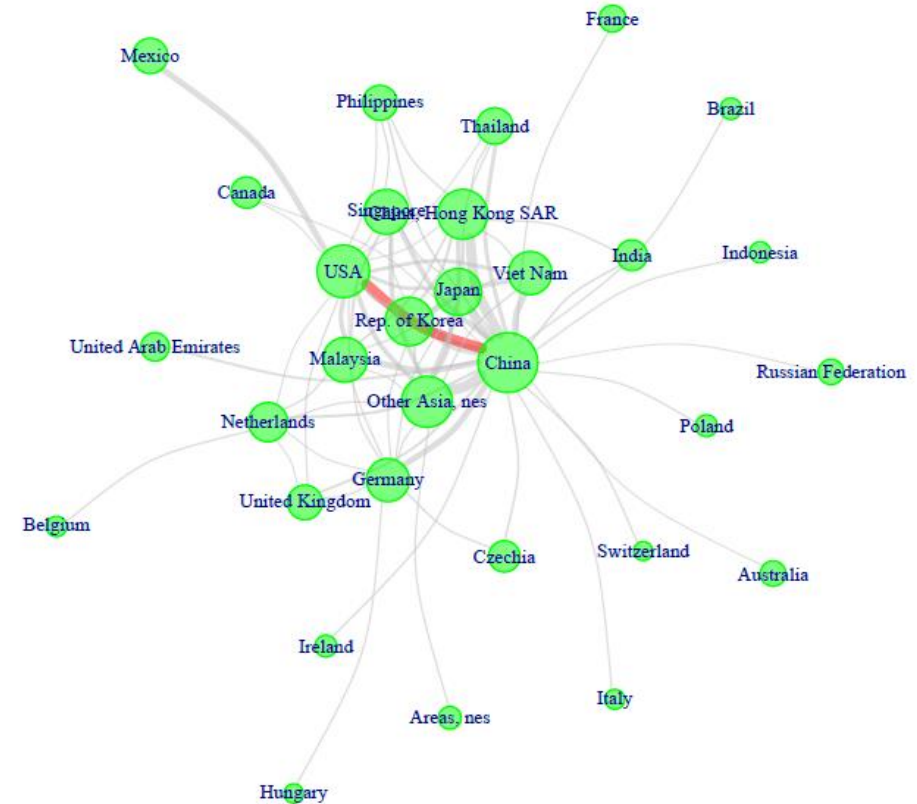
- NIPO acknowledges **other non-trade but important public policy concerns**, however from a specific perspective (is “no industrial policy is the best industrial policy” still the underpinning argument?)
 - Effectiveness, lack of accountability, cronyism, etc.
- **Are these the most relevant questions today in the New cycle of IPs?**
 - Businesses have interests spanning across national boundaries and are themselves facing trade-offs in terms of lobbying (e.g. Tesla, EU companies)
 - Impact of tit-for-tat is important, however more cases of ‘indispensable nodes’ in trade and manufacturing (inelastic demand, not available substitutes, unintended consequences – e.g. China race to semiconductors)
- **Are there other perspectives, concerns, questions, that we need to explore and for which evidence is needed?**

Indispensable nodes in ADPTs

Andreoni et al. 2023



2012 Bilateral trade, 127 digital products



2019 Bilateral trade, 127 digital products

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Learning what works and why

- M&E of Industrial policy matter, and increasing literature
 - OECD
 - JRC Initiative: JRC Working Group on System Dynamics for System Innovation
 - ...
- Industrial policy learning using different types of M&E matters even more:
worked/did not? Why? Under-what circumstances?
- Industrial policy evaluation is affected by:
 - Different definitions of science – different theories inform different ToC
 - Different use of evidence – quantitative, qualitative, mixed-evidence

Different types of evidence

- Country (and sub-national) contexts matter
 - Narratives / motivations mismatches, but also declared and undeclared motives and bundling of rationales (climate change + national security + competitiveness)
 - Beyond Advanced Economies and Emerging Markets dichotomy (huge variety within)
 - Understanding reasons behind use of variety of instruments matter (especially in relation to state capacity and 'policymaking ecosystems' in IP implementation)



Building effective M&E and learning approaches

- Analysing **industrial policy additionality** is crucial in the new reloading of industrial policy (e.g. IRA has lots of big carrots, where these additional?)
- **Industrial policy M&E is challenged by:**
 - Scale of investments, and a risk/bias for ‘triviality’ in industrial policy design
 - High degree of heterogeneity across firms, sectors, ecosystems (e.g. patents as proxy for industrial policy impact on innovation)
 - Functional forms of impact are unknown ex-ante
 - Capturing additionality (given that design often differs from implementation) and ‘super-additionality’ of industrial policy packages

Emerging policy questions and need for evidence

- **How domestic and global industrial policy motives are bundling** (tech sovereignty, national security, decarbonization, climate change, pandemics)? > *Review of International Political Economy* New Special Issue
- Trade policy reacquiring centrality in the industrial policy package? What **implications for other innovation/industrial policy measures?** Can fiscal and financial resources will be available?
- **Are we decoupling into a “2+half world” trade/industrial system?** What risks from decoupling, in which sectors? How global businesses are re-organizing in response to this tectonic shifts? Are new buffer zones emerging?