

R&D support, IP, and innovation strategies

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Overview (1)

- Highly varied group of papers:
 - **Countries:** Austria, Ireland, UK, Spain, EU countries, OECD countries, etc.
 - **Methodologies:** crosstabs, correlation regressions (non-causal), Diff-in-Diff, panel regression with IV, agent-based simulation, theory

Overview (2)

- Questions:
 - Factors affecting choice of R&D projects for subsidy
 - Performance (growth, TFP) as a function of R&D or innovation incentives
 - IP – formal vs informal; design of system
 - Strategic choices in innovation/competition

Overview (3)

- More questions:
 - How do patent boxes transfers affect firms making them
 - Impact of collaboration on firms
 - Data construction (R&D costs, R&D subsidy/tax across countries, intangibles for EU, etc.)
 - Networks?

Some key results

- Longer term impact of R&D subsidies harder to find; effects seem to die out after 2-3 years
- Patent box *without nexus requirement* => increased R&D & patenting by firm transferring patents
- Non-SNA intangibles *as productive as* SNA intangibles in manufacturing, less in services (but s.e.s.....)
- Unlike tangibles, intangibles trends were stable over financial crisis
- Ignoring confirmatory results....

Intangibles measurement

- Lots of variation in components (Voigt et al review types)
 - **In SNA:** R&D, software, databases, mineral exploration, copyright & creative assets
 - **Not in SNA:** New product development in financial services, new designs, brand-building & market research, staff training, mgmt consulting, org investment, network value
- All create some kind of capital, depreciation rates may vary a lot

TFP measurement

- Intangibles often as important as tangibles, but often not included in TFP, or only partly included
- Accounts for some of the increased dispersion in TFP between frontier firms and laggards
- Need much more work on measuring intangibles – in particular, how to depreciate them
- Also need greater clarity as to how TFP is being measured in particular cases