Evidence-Based Industry (and Innovation) Policy

Professor Paul H. Jensen

Roundtable on Manufacturing Competitiveness in Australia, University of Melbourne, 14th November 2012
Designing Public Policy

- To summarise the KPMG Report:
  - “Australian manufacturing is in decline: government and business needs to take action to reinvigorate the industry”

- But **how** and **why** should the government do this?

- And what (specifically) is wrong with **existing policies**?

- Economists have a well-articulated framework for answering these issues, which I will explain:
  - The key construct is the notion of “market failure” (often used in popular press but poorly understood)
  - Systematic evidence plays an important in guiding policy

- Finally, what do we know about ‘good’ innovation policy and how does this resonate with the KPMG Report?
What is Market Failure?

- Market failure: the unfettered market will, in some conditions, fail to supply the socially optimal level of goods

- What are (some of) the conditions where this will occur?
  - Non-rivalry: my consumption doesn’t affect yours (e.g. info)
  - Non-excludability: inability to exclude those who don’t contribute to the cost of production (e.g. defence services)
  - Coordination failures

- Creation of new knowledge (i.e. innovation) is a classic case:
  - Once invented (and disclosed), knowledge is not scarce
  - Everyone can enjoy the knowledge at almost zero cost
  - No incentives to invest in new knowledge (unless a secret)
  - But: secrecy is a bad outcome for society!
Government Intervention

- Does market failure mean governments should intervene in the innovation market? Not necessarily:
  - Policy intervention should have a strong rationale
  - Solution mustn’t be worse than the problem: i.e. distortions shouldn’t be greater than the original market failure

- Nevertheless, governments intervene in lots of ways in as part of industry (innovation) policy:
  - R&D tax incentives
  - Government grants and subsidies
  - The patent system
  - Skills, networks, funds, etc supporting commercialisation
Why do we Need Evidence?

- Evidence plays a crucial role in good public policy
  - Theory can only tell us so much
  - Interventions typically entail benefits \textit{and} costs
  - Need to compare effects of different policy interventions

- By ‘evidence’, I mean systematic evidence not just anecdotes or case studies

- This implies a scientific approach to policy evaluation:
  - e.g. ‘identical’ inventions are separated into control and treatment groups to see the effect of a policy (e.g. patent)
  - e.g. examination of whether additional $ R&D is greater than the tax revenue foregone
Response to Recommendations

- Is investment in core technologies adequate?
  - How can government make the current R&D grants and incentives more visible and effective for manufacturers?
    - R&D tax incentives and grants do seem to work
    - What are the barriers to uptake? We don’t know

- Are manufacturing businesses aligned with scientific and technological organisations in the early stages of R&D?
  - Good reasons to think that nature of collaboration is important (cf M4T research)
  - Careful evaluation of programs like those offered by Commercialisation Australia would be beneficial

- Future Opportunities: Industrial Transformation Hubs?