Innovation support policy for traditional manufacturing SMEs

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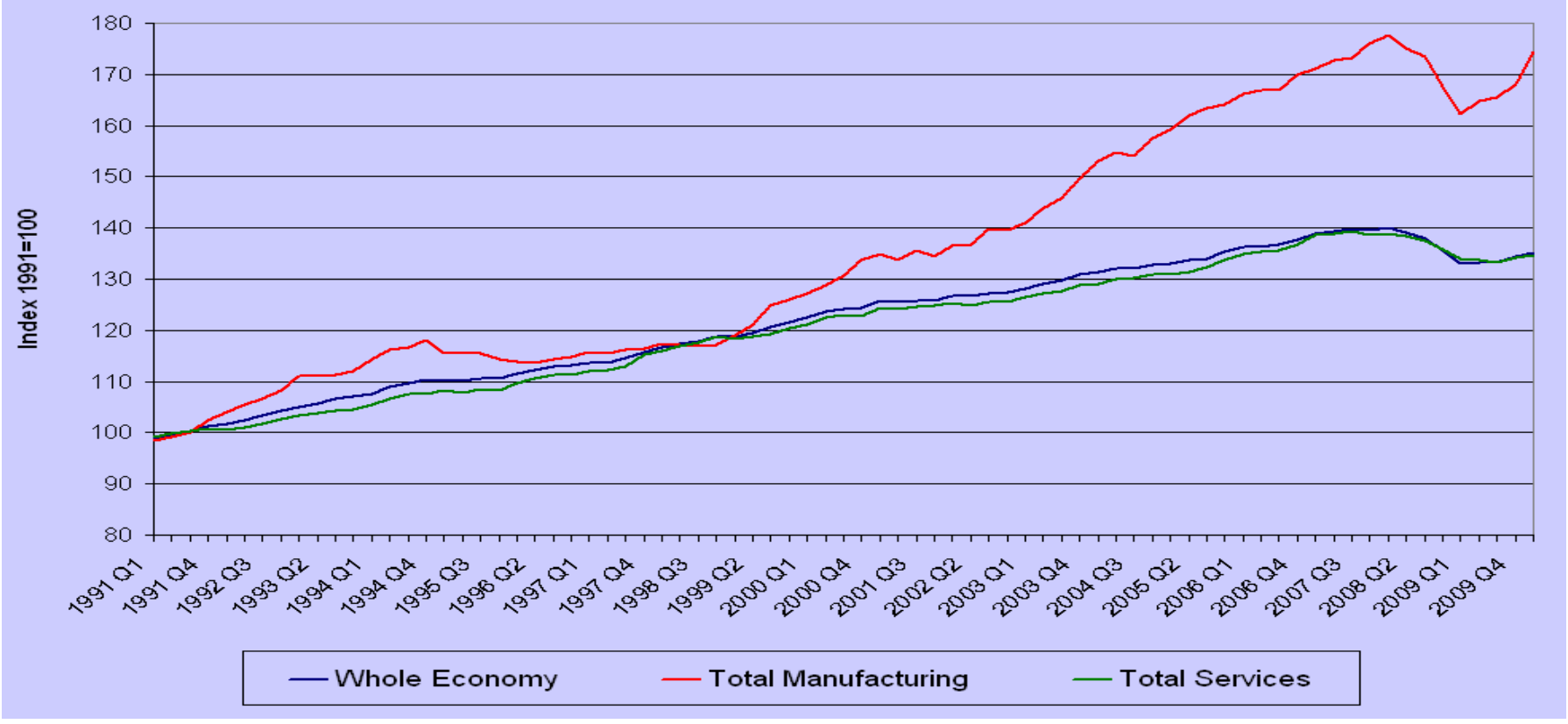
UK manufacturing sector, 1991-2009: relative productivity performance



Why rebalance towards manufacturing?

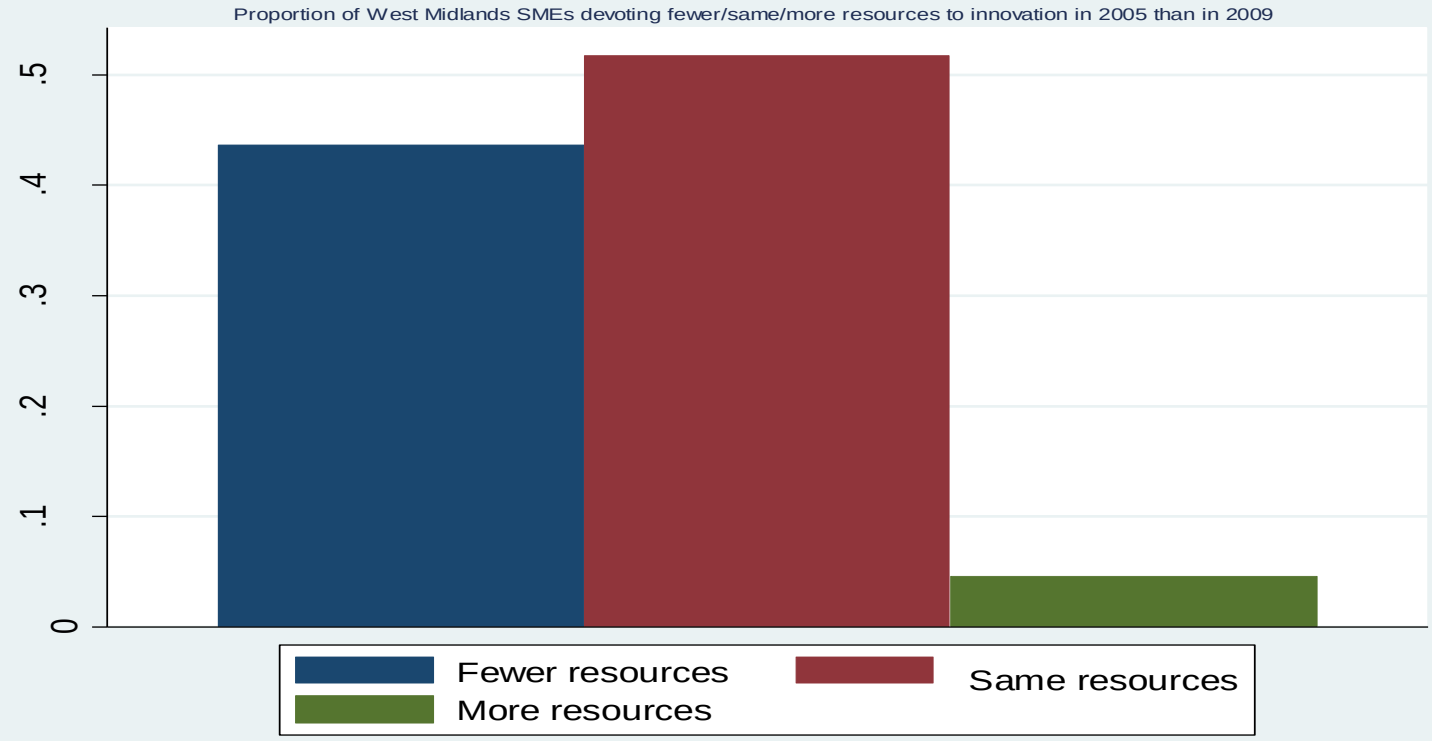
- Manufacturing
  - A major source of sustained productivity growth
    - Enables a sustainable rise in living standards
- What is special about manufacturing?
  - A sector capable of sustained innovation
  - Productivity $\Leftrightarrow$ Innovation
    - Innovation $\equiv$ commercial exploitation of ideas

The latest evidence from the West Midlands!

- Manufacturing industry in the British Midlands
  - "In Britain as a whole, some 100,000 manufacturing jobs have been lost in the past two years. In the Midlands, manufacturing employment has grown slightly ... the firms have emerged surprisingly nimble and profitable from recession."
    - *Economist*, February 11th 2012 (p.32)
- Consistent with GPrix research on SME innovation in traditional manufacturing industries
  - SMEs that have survived in traditional manufacturing
    - Very good at what they do
    - Innovative (in the broadest sense)

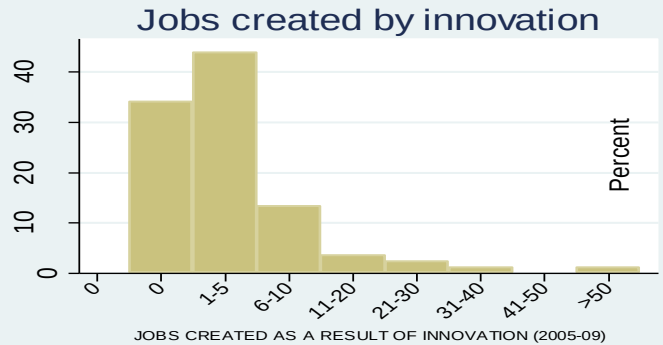
Resources devoted to innovation, 2005 compared to 2009

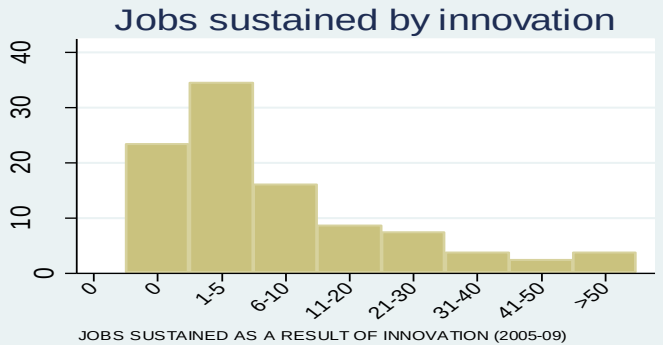
(GPrix sample for the West Midlands=98)

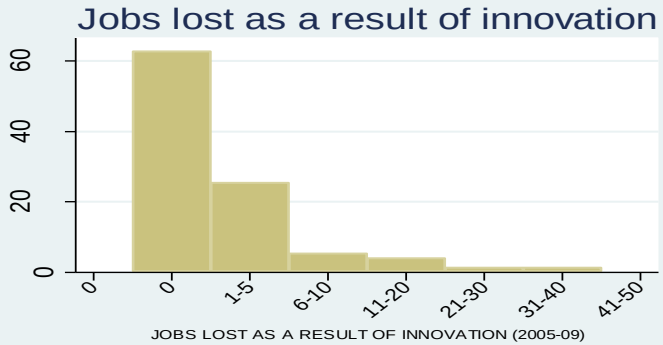


The employment effects of innovation

(Multiple responses permitted) (GPrix sample for the West Midlands = 98)







Response by government: proliferation of innovation support programmes

- Situation in the EU
  1. Lack of coherence
     - > 400 innovation support programmes
  2. Cost: no reliable estimate
     - Many € billions
  3. No idea of programme effectiveness
     - Little idea of best practice
- Origin of the GPrix project

GPrix

Good Practice in Regional Innovation (& the X?)

- Which support measures can help regions based on traditional industries to prosper in the knowledge economy?

Can we recommend any programme(s) as best practice? No!

- Why not?
  - No convincing evaluation of programme effectiveness

  $\Rightarrow$ Cannot judge best practice or value for money

Innovation support programmes for West Midlands SMEs in traditional sectors: summary

	Innovation Vouchers	Innovation Networks	Designing Demand	Knowledge Transfer Partnerships (KTP)
Participation: % of SMEs in West Midlands	c.0.1%	Less than 0.1%	0.04% (all firms) 0.26% (SMEs – excluding micros)	0.23% (all firms) 1.16% (SMEs – excluding micros)
Total annual budget for the West Midlands (2010)	< €1 million	Circa €1.3million	< €1 million	c. €9.5 million
Average subsidy (% of total cost)	75%	50%	c.33%	33% (large firm) 66% (SME)
Value of support to SME	€3574	Up to €15,000	Average: €12,000 Typical range: €6,000-€17,000	c.€100,000
Substantial excess demand?	Yes	Yes	No	No
Independent Evaluation?	Yes	Yes	Yes (for internal use only)	Yes
Evaluation meets best practice standards?	No	No	No	No
▪ Additionality rigorously assessed?	No	No	No	No (at best partially)
▪ Use of comparison group?	No	No	No	No

GPrix: effects of participating in support programmes

- Effects on SMEs of participating in support programmes
  - Little or no effect on the probability of participants innovating
  - Potentially positive effect ***if*** support had been allocated randomly to firms in the sample
- Perverse selection of participants
  - More likely to participate
    $\Rightarrow$ Less likely to innovate *as a consequence*
  - Less likely to participate
    $\Rightarrow$ More likely to innovate *as a consequence*
- Why?
  - Result of extreme selection bias
    - Support for those firms *already most likely to innovate*
  - Reflects the selection procedure by programme managers
    - Typically “cream skimming” or “cherry picking”
      - Like selective schools

Policy implication

- Consequences of “cream skimming”
  - The firms selected for innovation support are those most likely to innovate ***irrespective of programme support***

  $\Rightarrow$ Reduced ***additionality***

  $\Rightarrow$ Reduced effectiveness of support programmes
- Implication
  - To improve programme effectiveness
    - ***Do*** help typical SMEs in traditional manufacturing industry
    - Do ***not*** help *only* those likely to succeed without support

Recommendation ①: Reform the selection process

- Aim:
  - Select those firms that gain the most from support rather than those with the greatest propensity to innovate
- How?
  - Move from cream-skimming towards random selection
    - Subject to transparent eligibility criteria

Recommendation ②: Simplify and broaden the scope of R&D tax credits

- R&D tax credits
  - UK's largest innovation support programme (£1b in 2009-10)
  - Not easily compatible with the innovation model of SMEs in traditional manufacturing
    - Design central to SME innovation in traditional manufacturing
    - Innovation models based on "tacit knowledge" and "advanced craft skills"
- Proposal
  - Reform R&D tax credits
    - Broader eligibility
      - To help traditional sectors
    - Simplify application
      - To help SMEs

From R&D to Innovation tax credit?

- Advantages
  - ① Broader scope
    - to match the innovation model(s) of SMEs in traditional sectors
  - ② Demand-led *if* the scope is sufficiently broad
    - Including design, marketing and exporting
  - ③ Simplification of innovation support
- Above all, no "cherry picking"
  - ④ Available to ***all*** eligible firms
    - A way to increase value for money from innovation support

Recommendation ③

- Make funding of support programmes conditional on
  1. Training in evaluation methodology
     - So that evaluation reports can be properly specified
  2. Implementation of best practice evaluation
     - Key to value for money
       - Fail cheaply!
       - Build on success!