Towards a New Vision?
Manufacturing and Industrial Policy

Professor David Bailey
Aston Business School
Today

• Why manufacturing is important
• Possibilities for Rennaisance?
• Reshoring in UK and US
• UK Auto Case
• ‘Lessons’ for + role of wider industrial policy?

• WWWfor Europe FP7 programme
Decline of Manufacturing

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement No. 290647.
But new recognition Manufacturing important

This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement No. 290647.
Manufacturing Matters

80% exports
80% R&D spend
1 in 4 private sector jobs in industry. Many highly skilled
Every Manufacturing job → 2 other jobs (auto: 8)
Drives productivity gains

Europe: resilience (trade surplus)
But lost 3.5m jobs since 2008. share man decline and EU productivity growth poor

This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement No. 290647.
Manufacturing Renaissance?

Possibility for *Reindustrialisation*?
By focusing on high value added activities
By focusing on manufacturing & services (servitisation)
Repositioning on the GVC
Personalisation of offering
Birth of new ‘distributed manufacturing’ (additive manufacturing, web, consumer design, localised manufacturing (+ energy independence))
Reshoring

- Decades of offshoring and outsourcing
- Recently: risks of GVCs exposed \(\Rightarrow\) rethink (Gereffi) \(\Rightarrow\) reshoring possibilities?
- Work on German firms’ reshoring by Kinkel: quality, flexibility, transportation costs, rising labour costs
- 5 year lag: 1 in 6 offshored over 2004-6 chose to backshore
- 2007-9: for 3 offshoring, 1 backshoring
Academic Perspectives

Colliers and Coronet Global (2013)

• ‘Near-shoring’ – a relocation closer to home country but not necessarily a repatriation

• ‘Best shoring’ - firms’ location choices driven by strategic choices that maximise competitiveness without predefined scale considerations
Perspectives 1 – costs

- *Gray et al* (2013): offshoring was a ‘bandwagon’ effect, miscalculated actual cost advantage of offshoring
- *Ellram et al* (2013): reshoring a location decision where ‘total costs’ considered
- *Wu and Zhang* (2013) cost consideration, but also more volatile demand and more segmented markets
Perspectives 2 - GVCs

- *Gereffi (2013)*: OEMs dealing with far fewer tier 1 firms – modularisation, and control of supply chain
- *Mena et al (2013)*: balance of power in GVCs
- *McIvor (2013)*: ownership / nature of relationships
- *Christopher and Peck (2013)*: minimising vulnerabilities of supply chain
US and UK Policy debates

- US: BCG (2013): 54% of US firms surveyed considering repatriation; 2.5m to 5m manufacturing-associated jobs could be created by 2020
- Active set of policies under Obama
- UK: ‘rebalancing’ debate, fractured supply chains, servitisation of manufacturing
- Manufacturing that ‘comes back’ won’t ‘be the same’
Recent UK Trends
<table>
<thead>
<tr>
<th>Survey</th>
<th>Headline Findings</th>
<th>Key Drivers</th>
<th>Barriers to further repatriation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Birmingham, You Gov, 2013 (150)</td>
<td>One-third of manufacturers expect to source more from UK</td>
<td>Rising costs overseas; Quality; Simpler logistics; Skilled Workforce; Supply chain; R&amp;D/Innovation</td>
<td>Energy costs; Regulations; Lack of skilled labour; Access to Finance</td>
</tr>
<tr>
<td>Business Insider, SGH Martineau, Bailey &amp; De Propris, 2013 (80)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Transport Costs; Quality; Supply Chain resilience; Exchange rate shifts; Rising wages overseas; Need for rapid turnaround; Provision of service with manufacturing</td>
<td>Labour costs; Access to finance; Availability of skilled workers; Energy and Raw Material Costs</td>
</tr>
<tr>
<td>Manufacturing Advisory Service, 2103 (500)</td>
<td>15% of manufacturing firms engaged in reshoring</td>
<td>Cost savings; Quality; Lead Times; Delivery Performance</td>
<td>Higher UK labour &amp; production costs; Access to finance; Skills gaps</td>
</tr>
<tr>
<td>EEF, 2013 (271)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Greater certainty over lead times; Shorter delivery times; Minimising supply chain disruption</td>
<td>Availability of skilled workers; Energy costs; Planning regulations</td>
</tr>
<tr>
<td>PwC, 2014</td>
<td>Reshoring had potential to raise output by £6bn to £12bn and create 100,000-200,000 jobs by mid 2020s.</td>
<td>Declining Wage Gaps; Technology Changes; Security of Supply Chain; Rising/Volatile Transport Costs; Quality; Responding to Consumers Quickly; Cost of managing operations overseas</td>
<td>n/a</td>
</tr>
<tr>
<td>Survey</td>
<td>Headline Findings</td>
<td>Key Drivers</td>
<td>Barriers to further repatriation</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Business Birmingham, YouGov, 2013 (150)</td>
<td>One-third of manufacturers expect to source more from UK</td>
<td>Rising costs overseas; Quality; Simpler logistics; Skilled Workforce; Supply chain; R&amp;D/Innovation</td>
<td>Energy costs; Regulations; Lack of skilled labour; Access to Finance</td>
</tr>
<tr>
<td>Business Insider, SGH Martineau, Bailey &amp; De Propris, 2013 (80)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Transport Costs; Quality; Supply Chain resilience; Exchange rate shifts; Rising wages overseas; Need for rapid turnaround; Provision of service with manufacturing</td>
<td>Labour costs; Access to finance; Availability of skilled workers; Energy and Raw Material Costs</td>
</tr>
<tr>
<td>Manufacturing Advisory Service, 2103 (500)</td>
<td>15% of manufacturing firms engaged in reshoring</td>
<td>Cost savings; Quality; Lead Times; Delivery Performance</td>
<td>Higher UK labour &amp; production costs; Access to finance; Skills gaps</td>
</tr>
<tr>
<td>EEF, 2013 (271)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Greater certainty over lead times; Shorter delivery times; Minimising supply chain disruption</td>
<td>Availability of skilled workers; Energy costs; Planning regulations</td>
</tr>
<tr>
<td>PwC, 2014</td>
<td>Reshoring had potential to raise output by £6bn to £12bn and create 100,000-200,000 jobs by mid 2020s.</td>
<td>Declining Wage Gaps; Technology Changes; Security of Supply Chain; Rising/Volatile Transport Costs; Quality; Responding to Consumers Quickly; Cost of managing operations overseas</td>
<td>n/a</td>
</tr>
<tr>
<td>Survey</td>
<td>Headline Findings</td>
<td>Key Drivers</td>
<td>Barriers to further repatriation</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Business Birmingham, You Gov, 2013 (150)</td>
<td><strong>One-third</strong> of manufacturers expect to source more from UK</td>
<td>Rising costs overseas; Quality; Simpler logistics; Skilled Workforce; Supply chain; R&amp;D/Innovation</td>
<td>Energy costs; Regulations; Lack of skilled labour; Access to Finance</td>
</tr>
<tr>
<td>Business Insider, SGH Martineau, Bailey &amp; De Propris, 2013 (80)</td>
<td><strong>16%</strong> of manufacturing firms engaged in reshoring</td>
<td>Transport Costs; Quality; Supply Chain resilience; Exchange rate shifts; Rising wages overseas; Need for rapid turnaround; Provision of service with manufacturing</td>
<td>Labour costs; Access to finance; Availability of skilled workers; Energy and Raw Material Costs</td>
</tr>
<tr>
<td>Manufacturing Advisory Service, 2103 (500)</td>
<td><strong>15%</strong> of manufacturing firms engaged in reshoring</td>
<td>Cost savings; Quality; Lead Times; Delivery Performance</td>
<td>Higher UK labour &amp; production costs; Access to finance; Skills gaps</td>
</tr>
<tr>
<td>EEF, 2013 (271)</td>
<td><strong>16%</strong> of manufacturing firms engaged in reshoring</td>
<td>Greater certainty over lead times; Shorter delivery times; Minimising supply chain disruption</td>
<td>Availability of skilled workers; Energy costs; Planning regulations</td>
</tr>
<tr>
<td>PwC, 2014</td>
<td>Reshoring had potential to raise output by £6bn to £12bn and create <strong>100,000-200,000 jobs</strong> by mid 2020s.</td>
<td>Declining Wage Gaps; Technology Changes; Security of Supply Chain; Rising/Volatile Transport Costs; Quality; Responding to Consumers Quickly; Cost of managing operations overseas</td>
<td>n/a</td>
</tr>
<tr>
<td>Survey</td>
<td>Headline Findings</td>
<td>Key Drivers</td>
<td>Barriers to further repatriation</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Business Birmingham, YouGov, 2013 (150)</td>
<td>One-third of manufacturers expect to source more from UK</td>
<td>Rising costs overseas; Quality; Simpler logistics; Skilled Workforce; Supply chain; R&amp;D/Innovation</td>
<td>Energy costs; Regulations; Lack of skilled labour; Access to Finance</td>
</tr>
<tr>
<td>Business Insider, SGH Martineau, Bailey &amp; De Propris, 2013 (80)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Transport <em>Costs</em>; Quality; <em>Supply Chain resilience</em>; Exchange rate shifts; <em>Rising wages</em> overseas; Need for rapid turnaround; Provision of service with manufacturing</td>
<td>Labour costs; Access to finance; Availability of skilled workers; Energy and Raw Material Costs</td>
</tr>
<tr>
<td>Manufacturing Advisory Service, 2103 (500)</td>
<td>15% of manufacturing firms engaged in reshoring</td>
<td>Cost savings; Quality; Lead Times; Delivery Performance</td>
<td>Higher UK labour &amp; production costs; Access to finance; Skills gaps</td>
</tr>
<tr>
<td>EEF, 2013 (271)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Greater certainty over lead times; Shorter delivery times; Minimising supply chain disruption</td>
<td>Availability of skilled workers; Energy costs; Planning regulations</td>
</tr>
<tr>
<td>PwC, 2014</td>
<td>Reshoring had potential to raise output by £6bn to £12bn and create 100,000-200,000 jobs by mid 2020s.</td>
<td><em>Declining Wage Gaps</em>; Technology Changes; Security of <em>Supply Chain</em>; Rising/Volatile <em>Transport Costs</em>; <em>Quality</em>; Responding to Consumers Quickly; Cost of managing operations overseas</td>
<td>n/a</td>
</tr>
<tr>
<td>Survey</td>
<td>Headline Findings</td>
<td>Key Drivers</td>
<td>Barriers to further repatriation</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Business Birmingham, You Gov, 2013 (150)</td>
<td>One-third of manufacturers expect to source more from UK</td>
<td>Rising costs overseas; Quality; Simpler logistics; Skilled Workforce; Supply chain; R&amp;D/Innovation</td>
<td>Energy costs; Regulations; Lack of skilled labour; Access to Finance</td>
</tr>
<tr>
<td>Business Insider, SGH Martineau, Bailey &amp; De Propris, 2013 (80)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Transport Costs; Quality; Supply Chain resilience; Exchange rate shifts; Rising wages overseas; Need for rapid turnaround; Provision of service with manufacturing</td>
<td>Labour costs; Access to finance; Availability of skilled workers; Energy and Raw Material Costs</td>
</tr>
<tr>
<td>Manufacturing Advisory Service, 2103 (500)</td>
<td>15% of manufacturing firms engaged in reshoring</td>
<td>Cost savings; Quality; Lead Times; Delivery Performance</td>
<td>Higher UK labour &amp; production costs; Access to finance; Skills gaps</td>
</tr>
<tr>
<td>EEF, 2013 (271)</td>
<td>16% of manufacturing firms engaged in reshoring</td>
<td>Greater certainty over lead times; Shorter delivery times; Minimising supply chain disruption</td>
<td>Availability of skilled workers; Energy costs; Planning regulations</td>
</tr>
<tr>
<td>PwC, 2014</td>
<td>Reshoring had potential to raise output by £6bn to £12bn and create 100,000-200,000 jobs by mid 2020s.</td>
<td>Declining Wage Gaps; Technology Changes; Security of Supply Chain; Rising/Volatile Transport Costs; Quality; Responding to Consumers Quickly; Cost of managing operations overseas</td>
<td>n/a</td>
</tr>
</tbody>
</table>
The Auto Case: Changing Landscape....

- Changing patterns of production
- Changing Technologies and Technology / Regional Policies
- Changing Labour Needs
- Longer term: Changing Demand Patterns
Recent UK output trends...

- Recent peak: 1999: just under 2 million units
- 2009: -31%, down to < 1 million
- 2010: +27%, back to 1.27 million.
- 2011: 1.4 million
- 2012: 1.5 million
- 2013: c1.6 million
- SMMT projection: 4 years’ time – could be as high as 2.2 million? But only 50/50 chance this happen? KMPG: forecast 1.9m by 2016.
UK car production  (SMMT, 2012)
Other ‘success’ indicators

- Around £7bn invested in UK auto sector in last 3 years
- Some plants have gone to 24/7 working with 3 shifts (Halewood, Sunderland) – others (JLR) working very flexibly
- Q1 2012 – trade surplus. 2012 may see first trade surplus since mid 1070s (trade deficit in 2011 of £1bn and in 2007 of £7.5bn).
- 55% of exports go beyond the eurozone
- UK engine production c2.5 million in 2011 +JLR
- Plant utilisation rate in UK c.74% (KPMG)
- UK’s auto sector: lowest labour cost of any west European country (c.€23 an hour)… while having the second highest productivity in Europe after Germany (KPMG)
What underpins this recent success?

- what’s left is genuinely world class
- The shift ‘up market’
- exchange rate depreciation over 2008-9 really helped re exports. But being unwound?
- Emerging economy success – middle class +
- excellent skilled and flexible workforce – unions key part of the solution NOT a problem
- Industrial policy has actually helped, up to a point...
What about the supply chain?

- **Reshoring/onshoring opportunity:** depreciation of sterling, plus rise in transport costs, plus rising wage costs in far east also make it possible to repatriate some components sourcing to UK...

- Plus supply chain ‘resilience’ issue (Japanese earthquake/tsunami)

- Automotive Council, + Work of SMMT in ‘matching’ OEMs and component suppliers

- Big issue for smaller firms – **access to finance**, RGF / LEPs bid to address this, and Advanced Manufacturing Supply Chain Initiative BUT small scale

- **Key local question:** how to make most of JLR engine plant investment for supply chain in UK? And help local suppliers win more work? **help with winning orders, access to finance, skills, support for exporters.**
Recent Industrial Policy in the Auto Industry

- Automotive Council e.g. sourcing road map 2011
- Skills
- Loan Guarantees (→ access EIB funds)
- RGF support → JLR, Nissan, GM, supply chain,
- AMSCI (£245m)
- TSB + EPSRC investment into research
- OLEV
- MAS
- Automotive Research Campus at WMG
- AIO
- Scrappage scheme (2009-10)
- Local ‘smart specialisation’ approaches: NVN → open innovation approach
- Plugging funding gaps?
‘The automotive industry and the automotive council’s good work creates a model that we are trying to replicate in some of our other industries and sectors.’

(Vince Cable, 2012)
What type of IP?

• Not ‘picking winners’ – rather sees Industrial Policy as a process of discovery (Rodrick) + linked to ‘smart specialisation’
What more can be done - Auto

• ‘Tooling up’ finance for parts of certain supply chains
• Skills
• Support for exporters
• Attracting tier 1s? – scope? Segments of supply chain.
• Innovation
• Energy costs?
• Remaining in Europe
Broader Industrial Policy targeted at manufacturing?

- Innovation
- Capital allowances
- Focus corporation tax cuts for manufacturing firms that increase output
- National insurance holidays for firms that take on workers
- Better R&D tax credits
- Better support for exporters
- Auto long-term loan fund? (Relocalisation / Repatriation of supply chain) (see SMMT, 2012)
- Lessons from Germany: Part-time wage subsidies when shocks hit?
Summary

• Reshoring in UK manufacturing *is* happening, but on modest scale: limits and barriers

• Some recent ‘successes’ in the case of the UK's industrial policy re the automotive industry, and from which wider lessons can perhaps be drawn

• But need for a longer term, proactive and holistic pro-manufacturing industrial policy
How does this fit? Recall that Europe needs…

- More dynamic
- Lower unemployment, lower disparities, and disequilibria
- Higher share of wages and investment into the real sector
- Leading in education, innovation, gender equality
- Leading in energy efficiency, clean technologies
- Change from GDP to Beyond GDP as benchmark of success

One driver of change: a systemic industrial policy (SIP)
• Subsidies for (f)ailing industries
• Tax exception for energy intensive firms
• Creating and supporting national champions
• Preference for large firms (often semi-public)
• Emphasis on energy sector, transport, basic goods
• Decline of manufacturing in GDP to 10 % (UK, GR) (see next slide)
• Extreme UK case: only industrial policy was to support financial services (with consequences…).
New industrial policy?

- Possibility for *Reindustrialisation*? For example by focusing on high value added/service (manu-services), repositioning on GVC, personalisation of offering, and birth of new ‘distributed manufacturing’

Emphasis on:

- Sustainability and long term interests of society
- Support of market forces, competition by new firms
- Based on innovation, skills, clean energy
- Systemic not in conflict with sustainability
- Clean technology as source of exports.
‘Manufacturing Renaissance’?

- EU goal from 16% to 20%, BUT US re-industrialisation and *reshoring* built largely on cheap energy
- Sustainability at the centre stage (2011), but few consequences
- Priority for cheap energy and resources
- EU 2020 goals neglected in country specific recommendation
- Exemption in carbon taxation and energy taxes
- Low priority of ecological excellence
- Credit crunch and high interest rates (esp. South) for SME’s

⇒ New Industrial Policy started fine, but danger now returning to cost, price focus.
Thanks for listening. Comments, Questions welcome. Have a good day!

D.bailey@aston.ac.uk