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UK manufacturing decline since the crisis in historical perspective.

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Introduction

The new UK prime minister, Theresa May, is promising to revive and indeed enhance the industrial policy activism to which the Conservative-Liberal Democrat coalition government was committed. In this Brief, the Sheffield Political Economy Research Institute considers the recent performance of UK manufacturing in the context of the sector's historical decline. It contrasts the latest evidence on both jobs and output within UK manufacturing with the form that decline has taken in recent decades, suggesting that rather than decline having been halted, it may instead have taken on a new form. The May government will need to understand this process if its industrial policy agenda, especially in the context of Brexit, is to succeed to any extent.

Background

- The 2008 economic crisis in the UK led policy-makers – first Gordon Brown's Labour government, but then most vociferously after 2010 the David Cameron-led coalition government – to champion the 'rebalancing' of the economy, most notably away from financial services in favour of the manufacturing sector.
- The focus on manufacturing was crystallised in Chancellor of the Exchequer George Osborne's infamous 2011 proclamation of the 'march of the makers' and associated 'plan for growth', which identified high-tech or 'advanced' manufacturing as key growth areas.
- While policy-makers' enthusiasm for the (relatively limited) industrial policy initiatives designed to support manufacturing appeared to wane after the election of a Conservative majority government in 2015, the new Prime Minister Theresa May – taking office in 2016 after the EU referendum led to David Cameron's resignation – has boldly reasserted the importance of economic rebalancing, industrial policy and an active, interventionist state.
- The historical background to these moves by policy-makers is the decline of UK manufacturing over several decades (relative to similar economies), with the financial crisis, according to this narrative, necessitating action to reverse decline.
- However, an appreciation of the *scale* and *nature* of manufacturing decline in recent decades is often missing from public debates around rebalancing and industrial policy.
- Specifically, May's promise to revive the previous government's industrial policy agenda appears to have been advanced with little evaluation of whether policy-makers' existing approaches have been successful in stemming manufacturing decline since 2010 (and indeed of whether Brexit might create new barriers to manufacturing revival).
- This Brief seeks to place the performance of the manufacturing sector, in terms of both employment and output, in a historical context. It refers also to the relative performance of the manufacturing sector across different regions of the UK (addressing regional imbalances is also central to the rebalancing agenda), and to the recent performance of high-tech industries within the sector.

Evidence

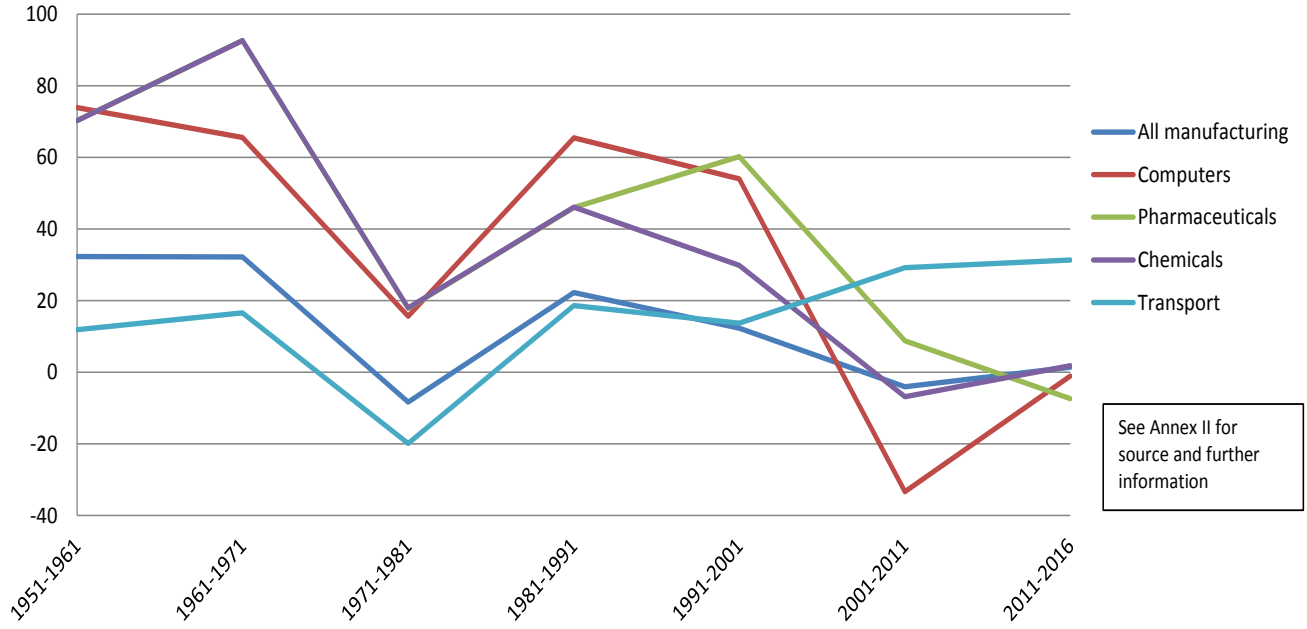
Jobs

- The decline in manufacturing jobs in the UK has in recent years gone into reverse. In the five years between 2011 and 2016, manufacturing jobs have grown by almost 5 per cent, compared to decline in the ten years between 2001 and 2011 of 33 per cent.
- There had been a decline of 27 per cent from 1971 to 1981, 21 per cent from 1981 to 1991, and 15 per cent from 1991 to 2001. See Annex I for the full data.
- There is little evidence, however, of geographical rebalancing within the manufacturing workforce as a result of this shift. Annex I also shows that the proportion of manufacturing jobs located in the North West and North East has fallen, albeit negligibly, since 2011. The proportion located in Yorkshire and Humberside (as well as London, the West Midlands and the devolved nations) has risen negligibly.

Output

- In contrast to jobs, there has been no absolute decline in manufacturing output in recent decades. As Annex II shows, manufacturing output grew strongly in the 1980s and, to a lesser extent, the 1990s, even as jobs were lost on a significant scale. This confirms what is known about productivity increases in manufacturing during this period.
- This historical trend appears to have first ruptured during the 2000s, with job losses on a much larger scale than previous decades alongside a small reduction in output.
- The UK has, however, witnessed an entirely new trend in the last five years, with both output and jobs growing – albeit with the latter growing much more strongly than the former (output growth since 2011 has been largely negligible).
- An examination of output growth in the UK's high-tech manufacturing industries related to computing and electronics, pharmaceuticals, chemicals and transport equipment helps to corroborate the above evidence, and enables scrutiny of the coalition government's success in supporting advanced manufacturing (these industries are generally more capital intense and encompass higher R&D investment, although will of course also encompass many low-tech processes and lower-skilled jobs).
- As shown in Figure 1, and detailed in Annex II, output growth in computing and electronics, and chemicals, remains negative or negligible. However, the last five years have seen a limited reversal in the decline in output growth in these industries, broadly in line with the manufacturing sector in general.
- The pharmaceutical industry has, in contrast, experienced a continuation of the decline in output growth evident since the 2000s, while output growth in transport equipment has remained stable at a relatively high level since the 2000s.

Figure 1. Manufacturing ouput growth since 1951 across high-tech industries



- Annex II also includes data on regional manufacturing output growth (the latest available data is 2014). However, only information on approximate gross value added (aGVA) at basic prices is available; this is not necessarily the most satisfactory measure of regional output growth, but is sufficient to demonstrate that there is little evidence of a resurgence of manufacturing output in the North relative to other areas.
- The data does suggest, however, that there has been significant manufacturing output growth in the West Midlands and, to a lesser extent, the North East in recent years. This is consistent with the growth identified in the production of transport equipment (especially cars).

Analysis

- The UK has witnessed in the last five years a reversal of decades of decline in manufacturing jobs.
- However, a number of caveats must be outlined. Jobs growth has resumed, but from a very low base in relative terms. While recent growth may have bucked the historical trend, it is not in-itself remarkable; manufacturing has been outpaced by other sectors in this regard.
- Furthermore, we should not discount the possibility that the structure of employment in the manufacturing sector has changed in line with the UK economy in general (with higher levels of casual employment, especially in low-tech manufacturing industries such as food production).
- Most importantly, while manufacturing output has grown slightly in the last five years, the growth in manufacturing output – traditionally evident despite job losses – has effectively stagnated, even as more jobs are being created.

This suggests that the UK manufacturing sector, after decades of increasing productivity by retaining higher-skilled jobs, has now become adept at instead creating lower-skilled jobs, with a more limited impact on productive capacity.

- The underwhelming performance of the UK's high-tech manufacturing industries is consistent with this picture; indeed, growth in the strongest performing industry, transport equipment, is arguably due to the partial transformation of UK car manufacturing into a lower-skilled industry increasingly populated by assembly plants rather than high-value manufacturing processes.
- Taken together, the evidence in this Brief adds weight to the view that UK manufacturing has macro-economic problems around dysfunctional and inefficient labour and capital markets, as well as meso-level pathologies in industrial and corporate structures within the manufacturing sector. It could perhaps be argued that manufacturing has reached, or is close to reaching, peak productivity – yet the experience of similar economies suggests that is not the case, and UK industrial policy is of course predicated on increasing manufacturing productivity.
- Even if we can nevertheless credit the coalition government with the partial success of having reversed the decline in manufacturing job losses, we must be wary of statistical anomalies due to periodisation. Job losses under the New Labour government appear to be dramatic partly because of the impact of the recession on the sector after 2008; it was always likely there would have been a recovery or 'bounce', but the longer-term trends may yet resume.
- There has also been no evidence as yet of a geographical rebalancing within manufacturing in terms of either jobs or output.

Conclusion

Overall, there is little reason to identify a positive outlook for UK manufacturing, including the 'advanced' manufacturing industries. The decline in manufacturing jobs has been reversed in the last five years, but this may to some extent be simply a short-term 'bounce' following the catastrophic job losses witnessed in the previous decade and exacerbated by the 2008 economic crisis. Moreover, we seem to be witnessing a new phenomenon whereby the UK manufacturing sector is creating low-skilled jobs without enhancing its productive capacity. There are few signs therefore that the UK is succeeding in growing its advanced manufacturing industries. While we could reasonably say that industrial policy initiatives may only bear fruit over the long term, the UK's withdrawal from the European Union will prove to be a significant challenge to the manufacturing sector in the years ahead, given the possibility of trade barriers between the UK manufacturing and its key trading partners, lower levels of investment from European manufacturing firms, and a more challenging research environment for UK universities.

The ongoing failure to reverse manufacturing decline hurts Northern regions more than most other areas' given their traditional dependence on the sector. It also negatively affects the rest of the UK economy, given the traditional role of manufacturing in generating productivity gains that are disseminated to other sectors (as well high-skilled jobs); the relationship between manufacturing and other sectors is not in any sense 'zero sum', despite what is implied by the notion

of sectoral rebalancing within the economy. Theresa May has promised a renewed focus on industrial policy, but it is not clear that her agenda will differ substantively from that advanced by the coalition government. What is required is an industrial strategy which reorients all economic policy functions towards supporting sustainable industrial development; challenging the institutional framework within which industrial policy is made – including the primacy of the Treasury – will be central to this endeavour.

Further reading

- Berry, C. (2016) 'Industrial policy change in the post-crisis British economy: policy innovation in an incomplete institutional and ideational environment', *British Journal of Politics and International Relations*, advance online publication (open access). Available at: http://bpi.sagepub.com/content/early/2016/09/02/1369148116667650.full.pdf.
- Berry, C. (forthcoming) '"D is for dangerous": devolution and the ongoing decline of manufacturing in Northern England', in C. Berry & A. Giovannini (eds) *The Political Economy of the Northern Powerhouse*, Palgrave.
- Berry, C. (2016) *Austerity Politics and UK Economic Policy*, Palgrave.
- Berry, C. (2015) 'The final nail in the coffin: crisis, manufacturing decline, and why it matters', in J. Green, C. Hay & P. Taylor-Gooby (eds) *The British Growth Crisis*, Palgrave.

Annex I: Manufacturing jobs data

Manufacturing jobs in the UK since 1971 (000s)

1971	7,886
1981 (% growth)	5,724 (-27.42)
1991 (% growth)	4,511 (-21.19)
2001 (% growth)	3,836 (-14.96)
2011 (% growth)	2,564 (-33.16)
2016 (% growth)	2,684 (4.68)

Source: Author calculations of Workforce Jobs (ONS) data.
Notes: 1971 data excludes Northern Ireland; all annual data relates to June of relevant year (1981 data refers to September).

Manufacturing jobs across UK regions since 2011 (000s)

	2001 *(% UK manufacturing jobs)*	2011 *(% UK manufacturing jobs)*	2016 *(% UK manufacturing jobs)*
YH	378 (9.85)	262 (10.22)	283 (10.54)
NW	486 (12.67)	335 (13.07)	343 (12.78)
NE	168 (4.38)	112 (4.37)	117 (4.36)
WM	492 (12.83)	296 (11.54)	331 (12.33)
EM	377 (9.83)	269 (10.94)	272 (10.13)
SW	317 (8.26)	231 (9.01)	239 (8.90)
SE	428 (11.16)	288 (11.23)	267 (9.95)
Lon	240 (6.26)	123 (4.80)	141 (5.25)
East	348 (9.07)	237 (9.24)	234 (8.72)
Scot	296 (7.72)	189 (7.37)	198 (7.38)
Wal	202 (5.27)	143 (5.58)	170 (6.33)
NI	105 (2.74)	80 (3.12)	88 (3.27)
UK	3836	2564	2684

Source: Author calculations of Workforce Jobs (ONS) data.
Note: all annual data relates to June of relevant year.

Annex II: Manufacturing output data

Manufacturing output growth across high-tech industries since 1951 (%)

	All	Computers	Pharmaceuticals	Chemicals	Transport
1951-1961	32.30	73.89	70.27	70.20	11.86
1961-1971	32.19	65.50	92.59	92.61	16.6
1971-1981	-8.35	15.64	17.86	17.98	-19.91
1981-1991	22.21	65.44	45.92	46.06	18.59
1991-2001	12.29	53.99	60.22	29.78	13.70
2001-2011	-4.12	-33.40	8.77	-6.87	29.17
2011-2016	1.37	-1.08	-7.42	1.84	31.35

Source: Author calculations of Index of Production (ONS) data.
Notes: 2016 data refers to Q2; 'Computers' = computer, electronic and optical products, 'Pharmaceuticals' = basic pharmaceutical products and preparations, 'Chemicals' = chemical and chemical products, and 'Transport' = transport equipment.

Manufacturing output growth by region 2011-2014 (%)

NW	5.40	Lon	4.2
NE	15.30	Scot	11.5
YH	-1.65	Wal	-0.94
WM	25.25	NI	31.3
EM	-0.61	UK	6.04
SW	4.90		

Source: Author calculations of Annual Business Survey (ONS) data.
Notes: Output measured as approximated gross value added (aGVA) at basic prices (therefore Annual Business Survey data is not consistent with Index of Production data); data for the South East and East of England is unavailable.

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