THE DEINDUSTRIAL REVOLUTION: THE RISE AND FALL OF UK MANUFACTURING, 1870-2010

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Abstract

This paper considers the evolution of the manufacturing sector in the UK since 1870. It analyses the contribution of manufacturing to national income, employment and trade. From 1870 to 1960, manufacturing played a key role in the development of the economy, undergirding success in other sectors of the economy and securing rising living standards. The subsequent fifty years, from 1960, have witnessed a relative decline of the UK manufacturing sector – relative to other sectors of the economy, and relative to the manufacturing sectors in other countries. The paper considers the thesis that the relative decline of manufacturing is a natural outcome of the development of advanced economies, and the counter-arguments suggesting that decline of UK manufacturing reflected economic weaknesses and structural imbalances. We argue that in the case of the UK, the relative decline of manufacturing has indeed reflected deep-rooted structural problems. In particular there has been a chronic failure to invest in manufacturing, with the UK economy and investment being instead skewed towards short-term returns and the interests of the 'City'. A stronger manufacturing sector would help to rebalance the UK economy away from an over-reliance on the banking sector and would help rebalance the UK economy and society in regional terms. To achieve such a rebalancing requires active government policies to help increase investment in education, skills and innovation.

JEL Codes: E60, L16, L52, L60, N13, N14, N63, N64, O25

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1.Introduction

This paper considers the evolution of the manufacturing sector in the UK since 1870. It analyses the contribution of manufacturing to national income, employment and trade. Broadly, for almost a century, from 1870 to 1960, manufacturing played a key role in the development of the economy, undergirding success in other sectors of the economy and securing rising living standards. The subsequent fifty years, from 1960, have witnessed a relative decline of the UK manufacturing sector – relative to other sectors of the economy, and relative to the manufacturing sectors in other countries. The paper considers the thesis that the relative decline of manufacturing is a natural outcome of the development of advanced economies, as against the counter-arguments suggesting that decline of UK manufacturing represented something more than this, reflecting economic weaknesses and structural imbalances.

We argue that in the case of the UK, the relative decline of manufacturing has indeed reflected deep-rooted structural problems. In particular there has been a chronic failure to invest in manufacturing, with the UK economy and investment being instead skewed towards short-term returns and the interests of the 'City'. These structural problems have led to uneven growth in the UK. Regional problems emerged in the interwar period due to the relative decline of traditional industries located in the North and the growth of new industries located in the South and the Midlands. After the Second World War such disparities persisted but were ameliorated by active industrial and regional policies. Since the early 1980s, regional growth has diverged – with London and the South East expanding faster than the rest of the UK. The benign neglect of manufacturing by policymakers has led to an unbalanced economy with manufacturing balance of payments deficits emerging and then persisting since the early 1980s.

Following the 2007-8 credit crunch and the global recession of 2009, a political consensus emerged around the need to rebalance the economy, with a stronger manufacturing sector. Britain does still have pockets of competitive manufacturing – in such sectors as aerospace and pharmaceuticals. But this consensus around the need for rebalancing was not translated into any significant growth of investment, output or employment in manufacturing, nor did it result in the emergence of new

sectors of manufacturing strength. A substantial devaluation assisted manufacturing exports, but even with rock-bottom interest rates, repeated quantitative easing, and agreement with the banks on providing increased credit to business, the results over the four years from the 2009 recession proved meagre.

2. The Historical Context: 1870-2010

The performance of any sector of the economy (including manufacturing) can be analysed in terms of the conditions of supply and demand. The supply conditions include: the cost and quality of labour; the cost and quality of capital (such as machinery and structures); and the way such factors of production are combined. The latter includes: innovation and technology; the competitive environment; the quality of management; and the effectiveness of entrepreneurship. The demand conditions include demand by domestic consumers and firms and demand by foreign consumers and firms - and the latter is influenced by the exchange rate as well as any restrictions on trade such as tariffs. A frequent refrain in the analysis of the performance of UK manufacturing is that it has been hindered by inappropriate supply conditions – in particular an uncompetitive environment which has led to low productivity growth and inadequate structural change (Crafts, 1996). On this, we argue that such a focus ignores many of the other constraints on manufacturing – in particular a lack of investment leading to low levels of capital (a supply constraint) and inadequate demand often due to an overvalued exchange rate (a demand constraint) (Kitson and Michie, 1996).

Britain acquired both the advantages and the disadvantages of being the 'first industrial nation' (Mathias, 1969). The industrial revolution led to an acceleration in economic growth, albeit slowly and sometime after the development of the technological and organisational innovations that generated economic change. But there were also first mover disadvantages, as other industrialising nations could copy Britain's successes without its mistakes; and there was also the concern that British manufacturing became locked into an industrial structure that was slow to adapt and change as the domestic and world economies developed.

The almost a century and a half from 1870 to 2010 can be characterised as 1870 having been the high point for the UK economy, in almost every sense, at least relatively. The UK was the leading economy globally, and with that economic leadership came military dominance and political sway. This strength had derived from the industrial revolution, causing the UK to also, then, be the global power-house in terms of manufacturing and industry. From this perspective we have

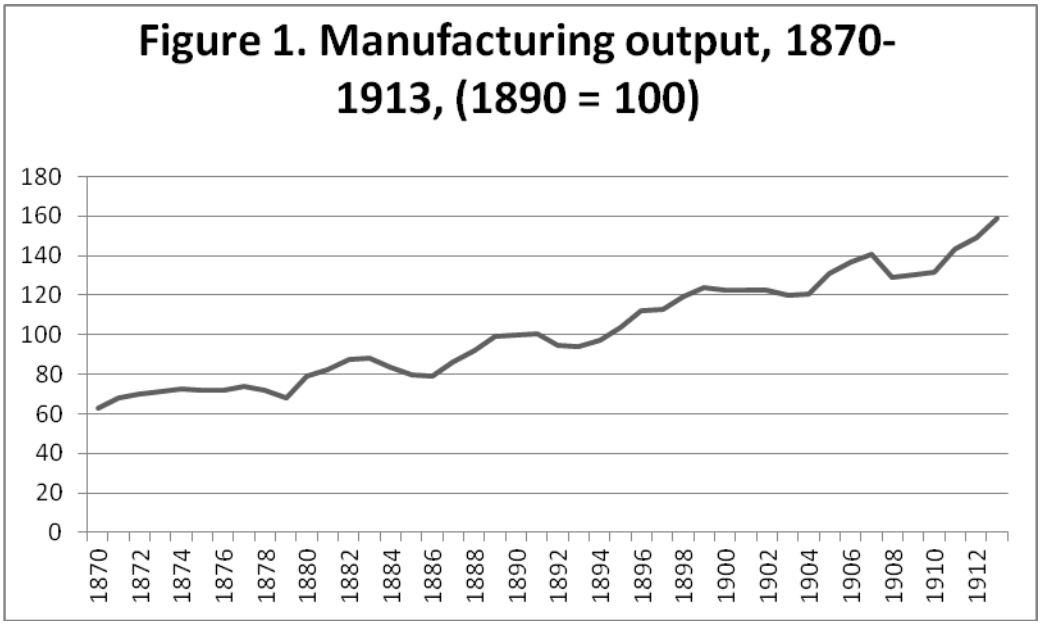
witnessed 140 years of relative decline. In general economic, political and military terms that is indeed what has happened, with the growth in both absolute and relative importance economically of Germany, Japan and in particular the USA, and more recently the 'BRIC' countries of Brazil, Russia, India and China.[1]

Within this, the path of development of the manufacturing sector since 1870 can be analysed in four major phases: first, the age of maturity from 1870 to 1913; second, the age of uncertainty from 1919 to 1939; third, the age of transition from 1950 to 1973; and fourth, the age of decline from 1973 to 2007. Since, 2007 the world economy has suffered a financial and economic crises, which led to calls for the UK economy to be rebalanced back towards manufacturing, but with little success in achieving this aim; for the UK at least, it looks set to be an age of austerity.

2.1 The Age of Maturity: 1870-1913

The growth of manufacturing output between 1870 and 1913 is shown in Figure 1. Although there were cyclical variations, overall the manufacturing sector grew at an average annual rate of 2.2% during this period. According to Matthews et al (1982, p.378), employment in manufacturing grew at an annual average rate of 0.8%, implying annual labour productivity growth of 1.4% per annum. Overall, employment in manufacturing had increased by 30% between 1870 and 1913 (Magee, 2004, p.75). This, of course, only measures the increase in the input of labour and not the quality of labour. It has been commonly argued that although education and skill levels increased in the UK at the end of the nineteenth century, in relative terms the UK was falling behind the USA (in terms, of formal education) and Germany (in terms of vocational training) (Sanderson, 1999). However, Broadberry (2004) argues that the international differences in human capital and skills should not be exaggerated, and Britain continued to invest in skills particularly in apprenticeships for industry. In addition to the increase in employment, there was also an increase in capital investment: with capital per worker increasing by 76% between 1869 and 1913 (estimates based on data in Feinstein, 1972). Although, this suggests a significant increase in investment in manufacturing, comparisons with other major industrial economies suggests a less optimistic picture. In the 1870s, capital per worker in UK manufacturing was approximately 10% higher than in the USA and 30% higher than in Germany. But by 1900 the position has changed and US manufacturing was 90% more capital intensive than British manufacturing and German manufacturing had caught up with the UK (Broadberry, 1997 and Magee, 2004, p.76). This suggests that

Britain's poor relative investment performance identified for the post World War Two period (Kitson and Michie, 1996) may have had deep historical roots.



Date source: Kitson et al (2012)

In terms of the organisation of economic activity, it has been argued that the structure of production in UK manufacturing hindered growth and development. Elbaum and Lazonick (1986) have argued that the small family run businesses that proliferated in manufacturing were inefficient and relatively unproductive compared to larger multi-plant enterprises that were more prevalent in the USA and Germany. Two caveats to this view need to be highlighted. First, it is not axiomatic that small firms are less efficient than larger scale enterprises. They may not be able to exploit economies of scale but they may be more adaptable and responsive to economic changes and shocks. Much will depend on how small firms collaborate with one another within the industrial system – as emphasised by Marshall in his notion of 'industrial districts' (Marshall, 1890) and by others, more recently, when focusing on the role of economic clusters (e.g. Porter, 2000).

Another apparent failure of the organisation of economic activity was the inability or reluctance to adopt new technology and innovations. This is another recurring theme in the narrative of Britain's relative decline: that the UK is good at developing new ideas and technologies but is not good at commercially exploiting such ideas. This can either be considered as a technological failure (Mokyr, 1990)

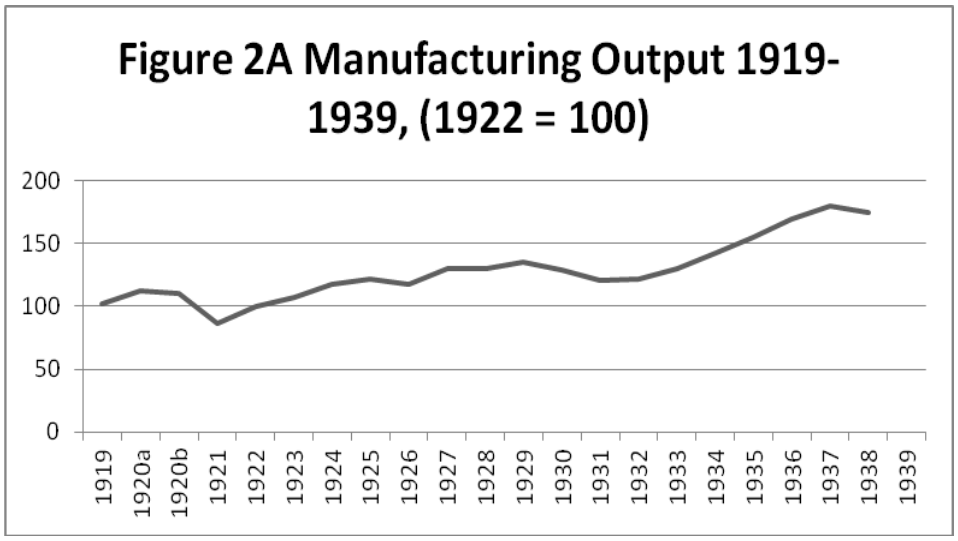
or as entrepreneurial failure (Levine, 1967). Prominent examples of the phenomenon were the cotton industry's failure to adopt ring spinning and automatic looms and the dyestuff industry's reluctance to utilise Perkin's synthesing aniline (Magee, 2004, p.88). There has been much discussion on whether the choice of technology should be considered as failure or whether it merely reflected rational decisions in response to market conditions including the costs of labour and capital (McCloskey, 1970). Moving on from this debate, it is apparent that the UK did not adopt the leading technologies during this period and there was a lack of a coherent strategy for innovation and growth with state investment in R&D being limited to military-related expenditures (Edgerton, 1996).

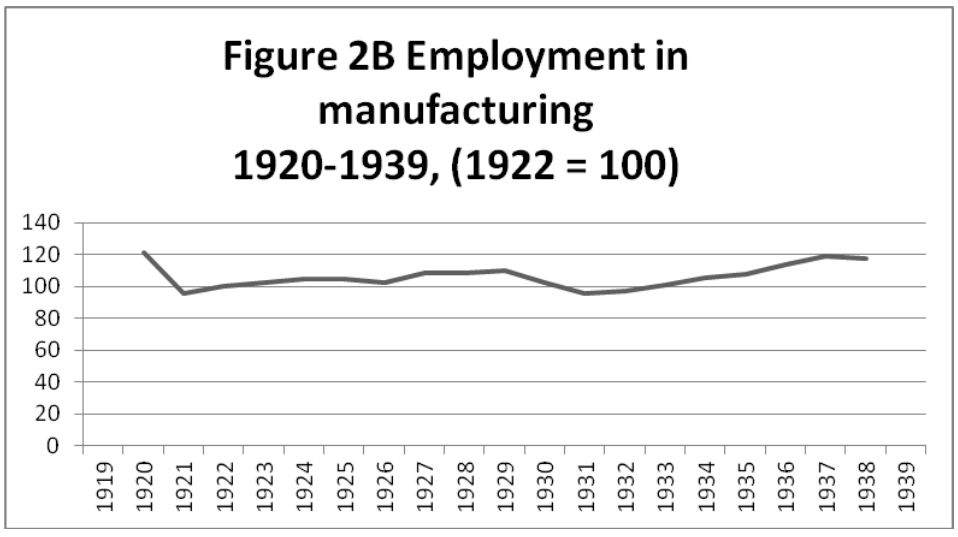
In addition to the supply conditions it is also important to consider the demand conditions and one of the most important components of demand for manufacturing is exports. By the mid-1880s the UK accounted for 43% of world manufactured exports, whereas the USA had 6% and Germany had 16% (Matthews et al, 1982, p.435). This dominant position, however, was eroded as other countries achieved superior growth of their manufacturing sectors and manufactured exports. By 1913, the UK's share of world manufactured exports had fallen to 32%, whereas the USA's share had increased to 14% and Germany's share had increased to 20% (Matthews et al, 1982, p.435). In part, the changing shares reflect the catching-up growth of the USA and Germany but it also reflected a poor performance of UK exports. This can be explained by a lack of price competiveness and the difficulty of entering or remaining in overseas markets which were increasingly developing their economies behind tariff barriers. Although distinguishing between supply and demand is a useful presentational device, it is also important to note that demand and supply conditions interact in a cumulative process. In the UK's case, the failure to invest and adopt new technologies may have harmed competitiveness, which in turn would have reduced exports, which would have deterred new investment.

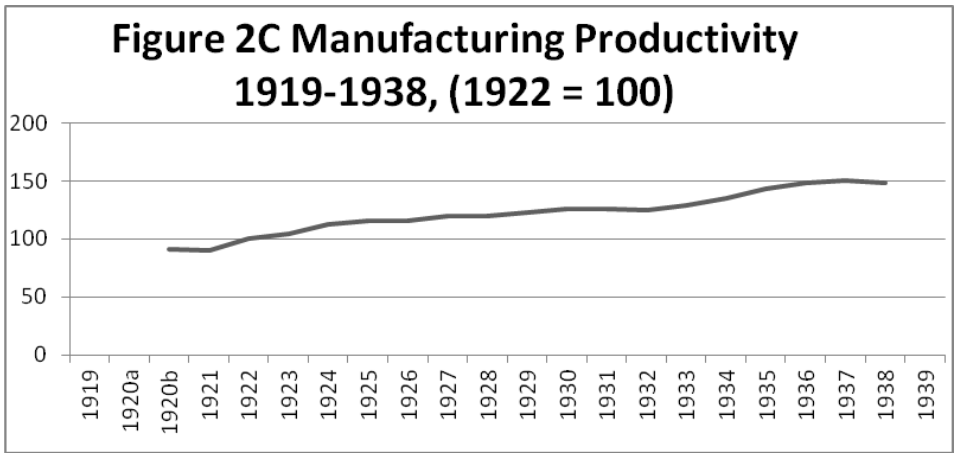
2.2 The Age of Uncertainty, 1919-39

During the interwar period, the development of the manufacturing sector was influenced by its earlier path of development as well as significant shifts in the macroeconomic environment. The period saw two major recessions and major shifts in trade policy including three exchange rate regimes and a move to widespread protectionism in the early 1930s. The data in Figures 2A, 2B and 2C shows the growth paths of output, employment and productivity during the

interwar period. From 1920 to 1938, manufacturing output grew at an average annual rate of 2.8% - higher than that achieved during the Victorian and Edwardian periods. Overall, manufacturing employment showed a small decline of 0.2% over the period as a whole. But there were cyclical variations: with a rapid decline of employment during the 1920-21 recession; a moderate decline during the Great Depression of 1929-32; and sustained growth from 1932 to 1937. The annual growth of productivity was 2.7% - a major acceleration compared to the Victorian and Edwardian periods. The change in the interwar period compared to the earlier periods was that although manufacturing output grew, this reflected growth of productivity and not the growth of jobs.







Date source: Kitson et al (2012)

In terms of the supply of factors of production, the limitations apparent in the Victorian and Edwardian periods were also evident in the interwar period. There was a legacy of low-skilled labour and a low level of investment. As Bowden and Higgins (2004, p.338) argue, a highly skilled labour force could not be built, as less than a quarter of the population received a secondary or tertiary education. Similarly, although apprenticeships were being increased, Britain lagged behind Germany in this form of skill development.

It has been argued that the low level of investment was a result of a financial sector that had not developed with the purpose of, or capability for, funding the development of domestic manufacturing (Best and Humphries, 1986). The financial strength of the City of London had developed alongside Britain's colonial and imperial role, funding and profiting from the UK's global economic operations and activities. This was part of the economic process that had led to the country's globally dominant position of 1870. As this global dominance waned, at least in relative terms, the nature and role of the 'City' began to be called into question, most notably by Winston Churchill proclaiming that he would rather see finance less proud and industry more content, and with Keynes concluding that: 'when the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done' (Keynes, 1936, p. 159).

In terms of the organisation and structure of the manufacturing sector, it has been argued that there was a supply side problem reflecting an over-commitment to traditional industries (such as iron and steel, shipbuilding and clothing). These traditional industries were concentrated in the so-called 'outer' regions of the UK (Scotland, Northern Ireland, the North West, the North East and Yorkshire),

leading to the development of regional divergences and the so-called 'North-South divide'. For some optimists, there was an industrial transformation in the interwar period with the over-commitment to old industries being replaced in the 1930s with an industrial structure more dependent on faster growing 'new' industries (such as electrical engineering, chemicals and motor vehicles) (Richardson, 1967). This thesis, however, contains a number of weaknesses. First, there are problems of definition, with fast growing industries being classified as 'new' and others being upgraded 'old' industries. Second, on whatever definition might realistically be used, the new industries comprised a relatively small share of manufacturing activity (Kitson and Solomou, 1990). Third, there were strong linkages between the new and old industries, such that the former cannot be considered as an independent development block (Von Tunzelman, 1982).

An additional issue in the organisation of production is the argument that British manufacturing was too small scale and lacked professional management (Chandler, 1990). British firms were unable to exploit economies of scale and scope which would have increased their competiveness – and allowed them to capture a larger share of both domestic and overseas markets.

The interwar period saw the introduction of policies to address the structural, scale and regional problems. Industrial policy was concerned with promoting mergers to rationalise production, reduce excess capacity and promote economies of scale. To address regional disparities, the government established the Industrial Transference Board in 1928, which retrained workers from the declining industries and used grants to allow them to move and find employment in expanding industries. It was an instrument that moved workers to jobs rather than jobs to workers, which had many negative effects on the areas which workers left.

One prominent critique of both industrial structure and economic policy in the interwar period is that it harmed the supply side of the economy and left an anti-competitive legacy which hampered economic performance after the Second World War (Broadberry and Crafts, 1990a, 1990b, 1992, and 1996). This view stresses the importance of the competitive structure of manufacturing where more intense competition, it is claimed: increases efficiency; encourages firms to develop new products, services and technologies; and gives consumers more choice and lower prices. There are both theoretical and empirical limitations to this perspective. On the theory side: there are alternative arguments that scale and limited competition may have beneficial impacts on innovation and competitiveness. This suggests that it is not always the case that more competition

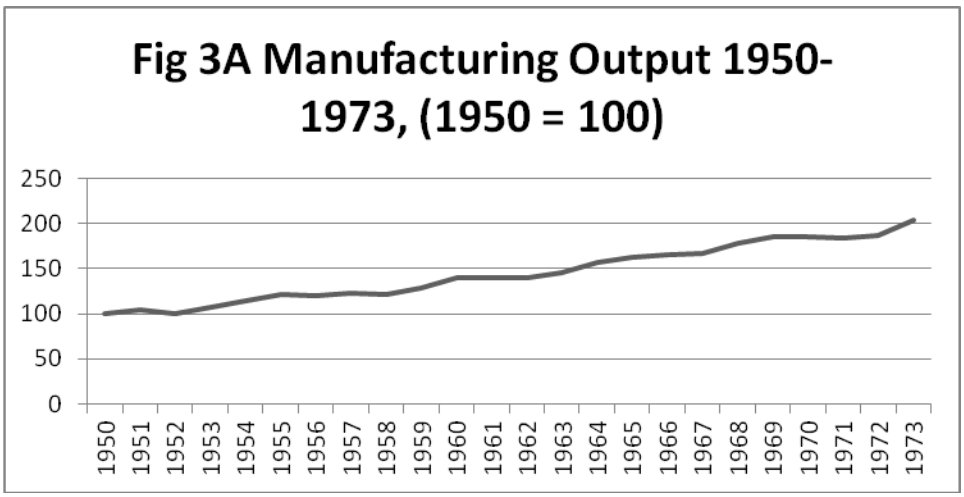
leads to better economic outcomes. On the empirical side, there is evidence that in the 1930s, a period characterised by a retreat from competition, British relative productivity performance improved (Kitson and Michie, 2000, pp. 80-1).

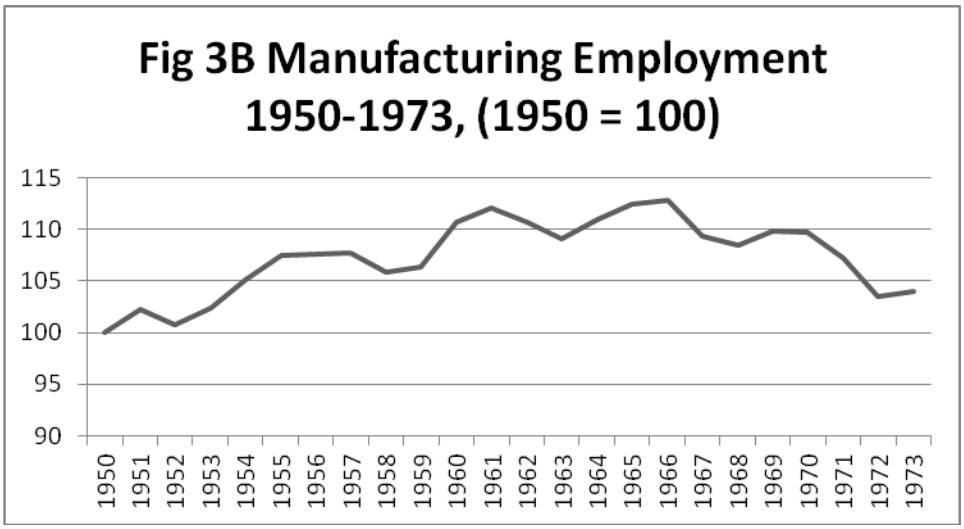
On the demand side, the manufacturing sector benefitted from rising domestic demand but was hindered by volatility in exports caused by shocks to the world economy and exchange rate shifts and crises. The interwar period saw a significant increase in consumers' expenditures on a range of goods and services, in particular on transport and communication and durable household goods (Bowden and Higgins, 2004, p.376). But there was more volatility in overseas markets as Britain adopted three exchange rate regimes during the interwar period: a floating exchange rate until 1925; a fixed exchange rate (the Gold Standard) from 1925 to 1931; followed by a managed exchange rate. The problem for the tradable sector was that, for most of the duration of the first two regimes, the exchange rate was overvalued, leading to a loss of price competiveness for exports and import substitutes (Kitson, 2013). This had a particularly adverse impact on the manufacturing sector, as a large share of its output was for export markets. The exports of manufactures were further reduced by the impact of the Great Depression which led to a lower level of world economic activity, which reduced the demand for British goods. Although there was a revival in the world economy from the mid-1930s, world trade remained depressed as countries turned to protectionist policies to support their domestic economies.

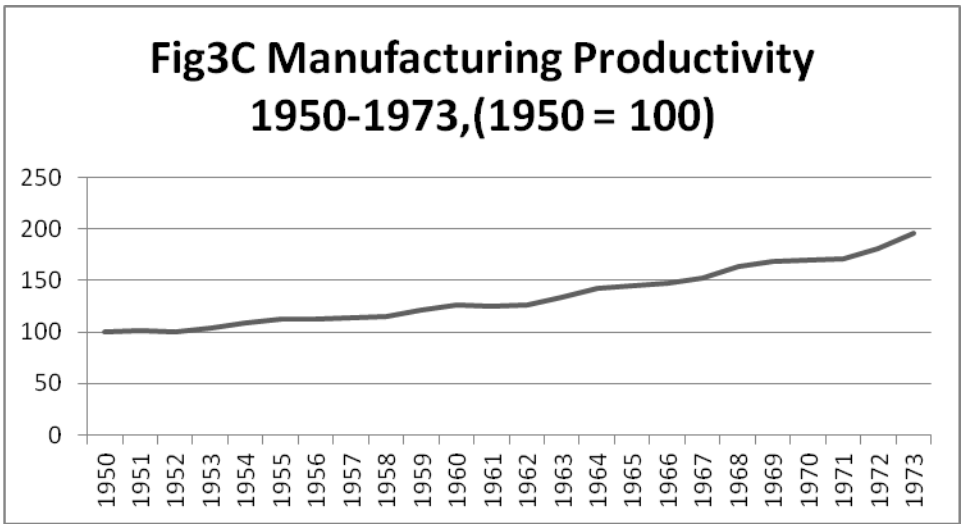
There was a turnaround for the manufacturing sector in the 1930s, with annual growth averaging nearly 8% between 1932 and 37. Much of this growth was stimulated by the policy regime change that took place at the end of 1931 and early in 1932, which included: suspension of the Gold Standard and devaluation of sterling; lower interest rates ('cheap money'); and protectionism of manufactures through the introduction of the General Tariff. The combination of these trade and monetary policies increased demand for British goods and services, in particular manufactures, which promoted recovery from the Great Depression (Kitson and Michie, 2000, chp.5). Overall, the manufacturing sector contributed 47% of the overall growth of the British economy between 1932 and 37. In contrast, the building and construction sector – which is often identified as the key sector in the revival of the 1930s (Crafts, 2012b) –contributed only 9% to overall growth in the period (Kitson and Solomou, 1990).

2.3 The Age of Transition, 1950 -1973

The period from 1950 to the early 1970s has been called a 'golden age', as economic growth was rapid, unemployment was low, and inflation was low and stable. For the manufacturing sector it was a period of transition, as the 1960s saw the onset of 'deindustrialisation' (measured as the relative decline of manufacturing or the decline of manufacturing employment). As shown in Figure 3A, manufacturing output grew throughout the period - at an average annual rate of 3.1%. In historical terms this was high but compared to many other advanced countries is was relatively low. Also, as Figure 3B shows, employment followed a different path, rising up until 1966 and then falling; whereas productivity (see Figure 3C) increased throughout the period.







Date source: Kitson et al (2012)

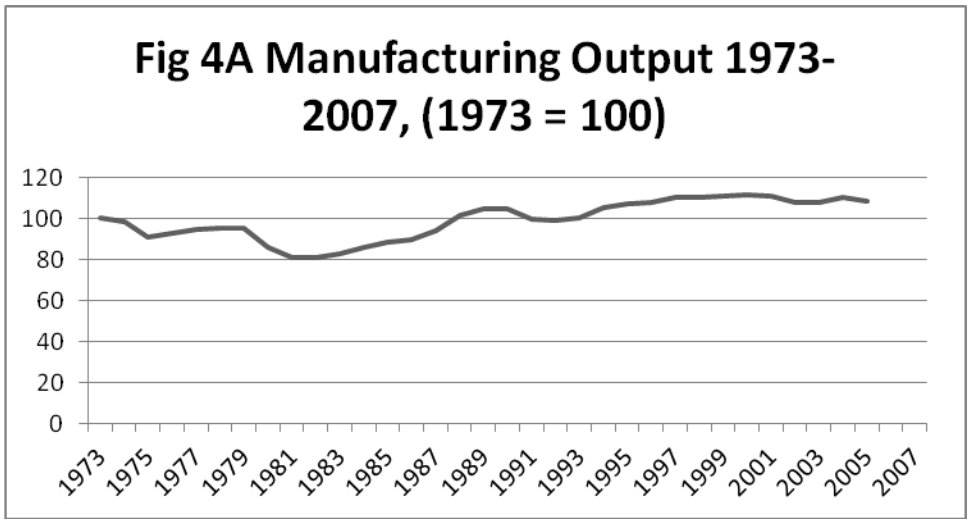
Despite growing at a faster rate than in earlier periods, it has been argued that the golden age was tarnished as Britain failed to achieve its potential. As in earlier periods, there were arguments concerning skill shortages and, in particular a lack of investment (Kitson, 2004). Kitson and Michie (1996) argue that poor investment resulted in British workers lacking the quantity and quality of capital equipment used by workers in other countries.

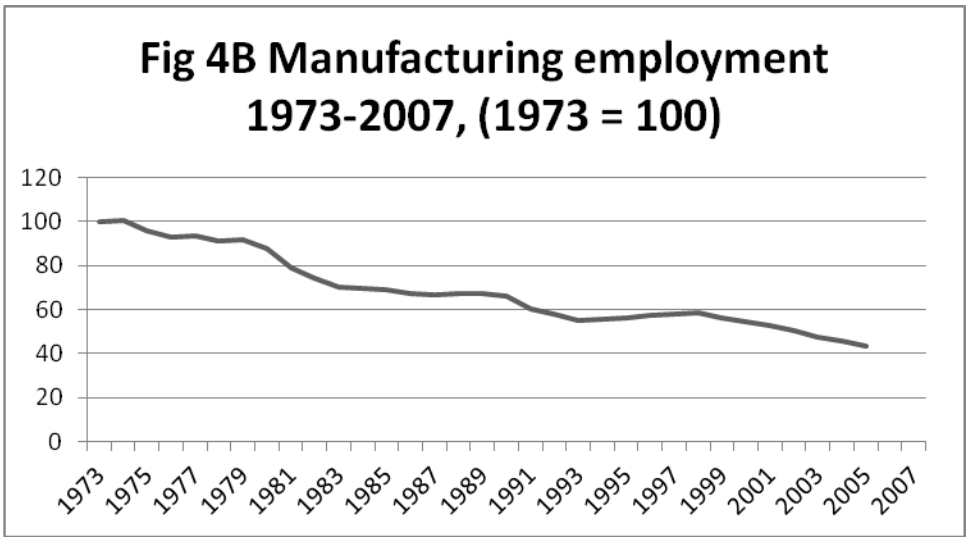
Industrial policy in the period was characterised by state intervention to 'pick winners' and state ownership of leading sectors. For those who emphasise the efficiency of market forces, this hampered the economy as it reduced competition and led to poor industrial relations (Crafts, 2002). Crafts (2002) has argued that the failure of successive governments to implement appropriate supply side policies led to a lack of competition in both product and labour markets. In particular, it is argued that the post-war settlement between government, employers and trade unions resulted in a harmful policy regime which included nationalisation, the support of failing companies, the toleration of militant trade unions and a lack of an effective competition policy. An alternative perspective is that the performance of manufacturing was hindered by a failure to implement a coherent industrial policy (Kitson and Michie, 2000). In particular, there was a general failure to promote long-term investment in the British economy. There were some sectors where a long-term perspective prevailed, but such sectors tended to be those that were supported by state intervention and support – such as aerospace and pharmaceuticals.

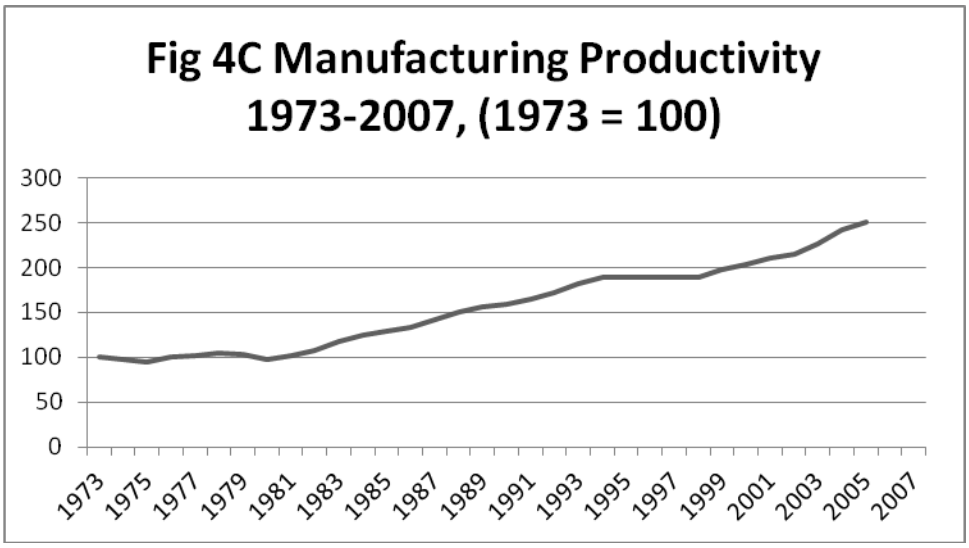
On the demand side, the manufacturing sector did benefit from growth of the domestic economy which stimulated consumption demand, and from rapid growth in the world economy which stimulated demand for UK exports. Despite this environment, the UK's share of world trade was falling and its propensity to import was rising. These deteriorating trends in trade performance were further exacerbated by periodic exchange rate crises. Kaldor (1971) argued that this acted as a brake on economic growth as the UK had *relatively* slow growth of demand as the trends in trade led to a balance of payments constraint on growth. Simply, the UK economy could not generate sufficient exports to pay for the imports the economy would wish to buy were the economy to be fully employed. Thus, the process of deindustrialisation locked the whole economy into a vicious cycle of relatively slow growth compared to many of the other advanced economies (Singh, 1977).

2.4 The Age of Decline, 1973 – 2007

The world economy suffered a major shock in the early 1970s. In the UK, and in many other advanced countries, there was the emergence of 'stagflation' – high levels of inflation alongside high levels of unemployment. There was also a major shift towards free market policies and a reduced role for state intervention. For the manufacturing sector, this was a period of stagnation in output and continued decline in terms of employment. As shown in Figures 4A and 4B, the annual rate of growth of output was only 0.4% between 1973 and 2007; and employment in manufacturing fell by an annual rate of 2.6%. The one bright spot was the continued rise in productivity which, as shown in Figure 4C, increased at an annual rate of 2.9%.







Date source: Kitson et al (2012)

Although the process of deindustrialisation was apparent in many advanced countries, it was more rapid in the United Kingdom than in most other countries. As shown in Table 1, the growth of UK manufacturing output between 1973 and 2007 was much lower than in competitor countries; moreover, this is apparent in all three sub-periods. The divergences in performance are also apparent in terms of employment. As shown in Table 2, all the major countries experienced falls in manufacturing employment from 1973, but the decline was much steeper in the UK compared to the other countries.

Table 1 Growth of manufacturing output between 1973 and 2007: International Comparisons

	Average annual growth (%)	Total (%) growth from 1st to last year (1973-2007)		
		1973-1979	1979-1989	1989-2007
UK	0.4	-7.6	-8.7	10.5
Italy	2.9	27.5	37.7	36.7
France	2.4	19.6	20.9	46.2
Germany	2.1	15.7	14.4	51.7
USA	2.0	N/A	16.5	41.7
Japan*	2.2	14.9	49.9	17.5

Sources: Kitson and Michie (1996), EU KLEMS database and own calculations

Table 2 Manufacturing output and employment: international comparisons. Average output (1985=100) and employment (millions) over each period, and average annual % growth (in parentheses) during each period

	1973-1979		1979-1989		1989-2007	
UK						
Output index	130.9	(-1.1)	103.0	(-0.8)	116.3	(0.6)
Employment	7.247	(-1.4)	5.610	(-3.0)	4.117	(-2.6)
Italy						
Output index	76.5	(4.3)	99.8	(3.3)	145.2	(1.8)
Employment	5.937	(1.3)	5.733	(-1.0)	5.139	(-0.5)
France						
Output index	84.9	(3.1)	99.7	(1.9)	138.9	(2.2)
Employment	5.328	(-1.0)	4.604	(-1.9)	3.697	(-1.4)
Germany						
Output index	84.3	(2.6)	95.4	(1.4)	122.2	(2.4)
Employment	10.553	(-1.6)	10.008	(-0.1)	8.513	(-1.6)
USA						
Output index	N/A		100.8	(1.6)	143.5	(2.0)
Employment	N/A		20.119	(-0.7)	18.125	(-1.6)
Japan						
Output index	71.7	(2.5)	96.6	(4.2)	131.3	(1.0)
Employment	13.907	(-1.6)	14.072	(1.0)	13.187	(-1.6)

Source: EU KLEMS, www.euklems.net.

* Data for Japan's growth of manufacturing output and employment is available until 2006.

Table 3: Growth of the manufacturing gross capital stock: international comparisons (annual % growth rates)

	1964-73	1973-9	1979-89	1989-2007*
UK				
Equipment	4.6	2.6	0.2	0.9
Structures	2.5	0.8	-0.5	0.5
Total assets	3.9	2.1	0.0	0.8
USA				
Equipment	4.2	5.0	2.4	2.3
Structures	4.9	2.6	1.4	0.4
Total assets	4.4	4.1	2.0	1.9
Germany				
Equipment	7.6	2.9	1.7	1.2
Structures	4.1	1.8	0.4	0.2
Total assets	6.1	2.5	1.2	1.0
France				
Equipment	7.8	3.5	1.7	1.4
Structures	8.4	6.6	3.4	0.1
Total assets	8.0	4.2	2.1	1.1
Japan				
Equipment	14.0	5.5	5.0	3.9
Structures	13.9	7.3	5.7	1.8
Total assets	14.0	6.0	5.2	3.4

Notes:

1. 'Equipment' includes all types of machinery, furniture and fixtures and vehicles. 'Structures' includes all types of buildings and other forms of infrastructure
2. *Annual growth rates for Germany are for 1991-2007 and for Japan are 1989-2006

Sources: Kitson & Michie (1996), Table 1: O'Mahony (1993) and the EU KLEMS database and own calculations

Although there was an economic policy regime change, the record of poor investment in manufacturing continued. Table 3 reports the growth of the manufacturing capital stock in various periods from 1964 for the UK and the other leading industrial economies. It can be seen that for total assets, the UK comes

consistently bottom of the league table for these countries – and also the growth of the capital stock was declining over time.

A key part of the policy regime change was a raft of supply side policies which decreased the role of the state and promoted the operation of market forces including: privatisation, deregulation, weakening of trade unions and restraints on public expenditure. Crafts (2002) has argued that the regime change improved competitive pressures and helped to halt relative decline. There is, however, an alternative perspective that the regime change exacerbated the decline of manufacturing, with adverse long-term implications for the whole economy. The good productivity performance of manufacturing has been presented as evidence to support the regime change. But productivity had actually been marginally higher in the 1950 to 73 period than in the subsequent period; moreover, in the 1973-2007 period, productivity was associated with job cuts and not rising output. Simply, the manufacturing sector was allowed to become too small – and this had implications for net exports, regional balance and overall economic growth.

This decline of manufacturing was made worse during some parts of the period by demand shocks and constraints caused by shifts in macroeconomic policies. During the early 1980s, the focus on controlling inflation led to periodic overvaluation of the exchange rate, which was particularly harmful during the monetarist policies in 1979-80 and during the UK's membership of the Exchange Rate Mechanism (ERM) (Kitson, 2004). When Britain was forced out of the ERM in September 1992, three subsequent administrations enjoyed the concomitant economic benefits from the devaluation and low interest rates – much as leaving the Gold Standard in 1931 had enabled devaluation and the introduction of cheap money. In both cases such a move had generally been regarded as being unthinkable – but as is so often the case when alternative views are advanced to challenge orthodox thinking, once the deed is done, it becomes hard to find anyone who admits to having previously been opposed.

More potentially significant was the removal of the Conservative Party from office after almost twenty years of uninterrupted rule, with Labour winning the 1997 election. John Major had been the Chancellor of the Exchequer under Thatcher, and his government was generally seen as a 'steady as you go' administration that was not going to attempt anything very different from the previous Conservative (Thatcher) governments. The 'cones hot line' is perhaps what that government is best remembered for, although as noted above, the economic circumstances had

fortuitously fallen nicely for manufacturing, with the failure of the 'ERM' policy leading to interest rate cuts and devaluation.

The election of the Labour Government in 1997 was potentially significant for British industry for a number of reasons. Firstly, the first Thatcher Government's pursuit of monetarist policies had hit the manufacturing sector particularly hard, with high interest rates and an overvalued currency making UK manufacturing exports uncompetitive and UK products concomitantly uncompetitive domestically against imported goods. Secondly, the Labour Party might have been expected to be more supportive of the manufacturing sector, given its importance not just to the economy but also to employment and to the regional balance of the economy – and to be accordingly less supportive of the City of London and their demands. And thirdly, there were analysts and commentators who appeared to believe that 'New Labour' was an intellectually credible force, which would deliver policies appropriate to modernising the economy as a whole, including manufacturing.
Sadly, any such hopes or beliefs proved largely unfounded. 'New Labour' avoided any active industrial policy, generally claiming instead that governments could not or should not 'pick winners' – and for that orthodox view they always had mainstream academic backers. But arguably that is precisely what the Government did in seeing (or picking) the banking sector as representing the key to the UK economy's future prosperity; thus, the Chancellor of the Exchequer congratulated the City on their 'remarkable achievements', which were announced in June 2007 as unleashing 'an era that history will record as the beginning of a new golden age for the City of London' (Brown, 2007). The winner that New Labour picked, turned out to be a more expensive gamble than any amount of 'picking' or 'creating' winners within the manufacturing sector could have possibly cost.

2.5 An Age of Austerity, 2007 - ?

Manufacturing was largely neglected until the dying days of the Brown administration, by which time it was too late to do much economically, and it also proved too late politically as well. Interestingly, a late attempt at industrial activism came from Peter Mandelson who had been one of the architects of New Labour and its strategy of distancing the Labour Party from its previous commitments to active industrial and regional policies. It may be that Mandelson's time in Brussels opened his eyes to how other leading industrial economies operate, namely with active institutional support to the manufacturing sector, rather than just as a cheerleader for the banking sector.

The Coalition Government took office in 2010 in the aftermath of what had been the first global recession since the 1930s, with world output falling in 2009 following the 2007-08 credit crunch. The Coalition Agreement pledged to foster a more corporatively diverse financial services sector, including through the promotion of mutuals (HM Government, 2010).[2] The Chancellor of the Exchequer claimed to be supporting the 'March of the Makers', and the economy would be rebalanced towards manufacturing.

Once again, the results were disappointing, not just in terms of outcomes, but even of actions. On the Coalition Government's pledge to promote mutuals in order to bring about a more corporately diverse financial services sector, this was not in fact a very difficult pledge to fulfil, as one of the formerly successful mutuals which had become a private bank that failed, was actually in public ownership – so it would have been a simple matter to return it to the mutual sector. Indeed, representatives of UKFI (the organisation created to manage the public stakes in the banking sector) had met with the Oxford Centre for Mutual and Employee-owned Business, a meeting that the Government Minister had welcomed, and at which the proposals for how Northern Rock could be remutualised to the benefit of the UK taxpayer had been set out. This meeting was followed by the Government instead selling Northern Rock to Richard Branson. When the Government Minister was challenged in Parliament as to why they had short-changed the taxpayers in this way, he misled Parliament by claiming that the Oxford Centre had failed to provide any alternative advice.

3. Explaining Deindustrialisation

Britain was the first industrial nation, and for much of the subsequent period it was considered the 'workshop of the world', but a process of deindustrialisation started from the 1960s. The causes and consequences of this deindustrialisation have been subject to much debate (Booth, 2003; Crafts, 1996; Eltis, 1996; and Kitson and Michie, 1996[3]). When assessing the merits of the various arguments it is important to emphasise that economists disagree about how the economy functions and what are the best policies to improve performance – and such disagreements are apparent in the discussion about deindustrialisation. As the Irish dramatist, George Bernard Shaw allegedly observed: 'If all economists were laid end to end, they would not reach a conclusion'. This is because economics is not, as some of its proponents believe, a science (as in the natural sciences) but is a study of human behaviour.

There are many schools of economic thought but there is a basic distinction between those economists who consider that the free operation of markets ensures the best outcomes in terms of prosperity, growth and jobs, and those who see a more active role for state intervention. Many free market economists trace the origins of their approach to the work of Adam Smith who commented, in *The Wealth of Nations*, that: 'Every individual... neither intends to promote the public interest, nor knows how much he is promoting it... he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.' (Smith, 1776, p. 456). The notion of the 'invisible hand' has been prominent in the discourse on the power of markets – despite only occurring once in over 1000 pages of the Wealth of Nations. Other economists consider that the invisible hand is either a misnomer or a poorly functioning appendage – and that the state can improve the functioning of both the supply side and the demand side of the economy. For this group, markets may 'fail' (that is, not ensure, the best social outcomes) and many consider that the economy is best considered as system which may have structural flaws or weaknesses that require state intervention or support. As Keynes argued in 1933: 'The decadent international but individualistic capitalism in the hands of which we found ourselves after the war is not a success. It is not intelligent. It is not beautiful. It is not just. It is not virtuous. And it doesn't deliver the goods'. (Keynes, 1933, 755-769).

One of the most prominent free market approaches to explaining deindustrialisation was the 'too few producers' argument by Bacon and Eltis (1976). Bacon and Eltis argued that de-industrialisation was the result of the rapid growth of the public sector which crowded out resources (such as labour and capital) which could have been used by the manufacturing sector. Their argument explicitly viewed private sector economic ('market') activity as more productive than public sector ('non market') activity. Furthermore, their argument was a supply side explanation which took no account of demand side conditions – which is surprising as their work was published in the mid-1970s when the UK economy was suffering from stagflation (a combination of a stagnating economy and high inflation) and unemployment was rising - suggesting that the problem for the economy was not a lack of resources but a lack of demand.

Broadberry and Crafts (1996 and 2003) also posit a supply side explanation of deindustrialisation which stresses the importance of competition and market forces. Broadberry and Crafts argue that deindustrialisation and the relative poor

productivity performance of UK manufacturing was caused by lack of incentive structures, primarily caused by strong trade unionism and inappropriate interventionist Government supply-side policies. Furthermore, Crafts (1996) argues that this poor productivity performance was halted and reversed following the Thatcher economic reforms that were implemented from 1979.

The Broadberry and Crafts view has become a pervasive argument in the economic history of modern Britain, although there are some disbelievers who do not adhere to this new conventional wisdom (Booth, 2003; Kitson and Michie, 1996). Broadberry and Crafts claim that the distinctive features of their approach is their "use of economic theory" and a "quantitative approach to testing hypotheses" (2003, p.718). But there are alternative economic theories and other quantitative data, which provides an alternative picture of UK deindustrialisation to that portrayed by Broadberry and Crafts - a picture which is more pessimistic about the record of free markets and the performance of UK manufacturing since 1979. Kitson and Michie (1996) adopt a different theoretical framework to that of Broadberry and Crafts: where economic performance can be path dependent such that shocks may led to cumulative growth paths; where a lack of aggregate demand can constrain short-term growth and cause long-term problems; where it is not axiomatic that more 'competition' always improves economic performance; and where state intervention can improve economic performance. Kitson and Michie (1996) argue that Britain's industrial performance since 1960 had been relatively poor and neither the specific problem of deindustrialisation nor the more general problem of relative economic decline had been solved during the 1980s. They identify four interlinked problems that have hampered UK manufacturing. First, underinvestment in manufacturing which resulted in British workers lacking the volume and quality of capital equipment compared to its main competitors. Second, much of this underinvestment was the result of short-termism in the financial sector which privileged short-term financial returns over long-term investment in capacity and technology. Third, there was a lack of a coherent industrial policy – in contrast to the strategy adopted in many other advanced industrial economies (see below). Fourth, shifts in UK macroeconomic policy created an uncertain economic environment which has been particularly damaging for much of manufacturing, which is capital intensive and export-dependent.

The shift in policy regime that followed the election of the Thatcher Government in 1979 can be used to shed light (although not agreement) on the alternative explanations of deindustrialisation. The Thatcher Government embraced the free market economics associated with economists such as Hayek and Friedman, in

particular: it attempted to reduce the role of the state in the economy; it relinquished any responsibility for full employment; it attempted to increase competition in product markets; and it reduced the power of trade unions. This shift towards free market policies did not slow the relative decline of manufacturing, but for many economists, the Thatcher policies were broadly successful as they halted the relative decline of the UK economy overall (Crafts, 2012b and 2013). Such claims of apparent success are often qualified, since income inequality and regional divergences increased during the period. An alternative perspective argues that the Thatcher regime-shift did nothing to halt the relative decline of manufacturing, and actually undermined the long-term productive capacity of the UK economy. This underlying weakness was masked by the overall growth of GDP during the period which was fuelled by an unsustainable growth of private sector debt, which in turn led to persistent balance of payments deficits. The financial crisis and concomitant recession have brought these problems to the fore; hence, too late, the conventional wisdom that manufacturing does not matter has been replaced by calls for the 'march of the makers' and the need to rebalance the economy away from unproductive finance towards manufacturing.

4. Does Deindustrialisation Matter?

There are thus debates about both the causes of deindustrialisation, and over whether deindustrialisation matters? Of course, if the relative decline of manufacturing has no adverse impact on employment or the overall level of economic activity, then there may be no problem. There has long been interest in what causes and creates the wealth of nations, and what role industry and manufacturing plays in this process (early contribution to which was Smith, 1776). This interest is still alive, and the resulting debates continue, with many of the key issues remaining unresolved or at least still disputed (for a recent contribution, see Acemoglu and Robinson, 2012). The relative decline of manufacturing, as a share of both output and employment, has been apparent in all advanced economies, particularly since the 1960s (Kitson and Michie, 1997) - but the decline has been more rapid in the UK compared to the other advanced countries (see above). This has led some to argue that this reflects a process of historical evolution, as advanced economies are characterised by a large services sector and a small manufacturing sector (see Fisher, 1935; Rostow, 1960; and Kuznets, 1966). This process can be characterised as positive deindustrialisation (Rowthorn and Wells, 1987) – and not an issue of concern.

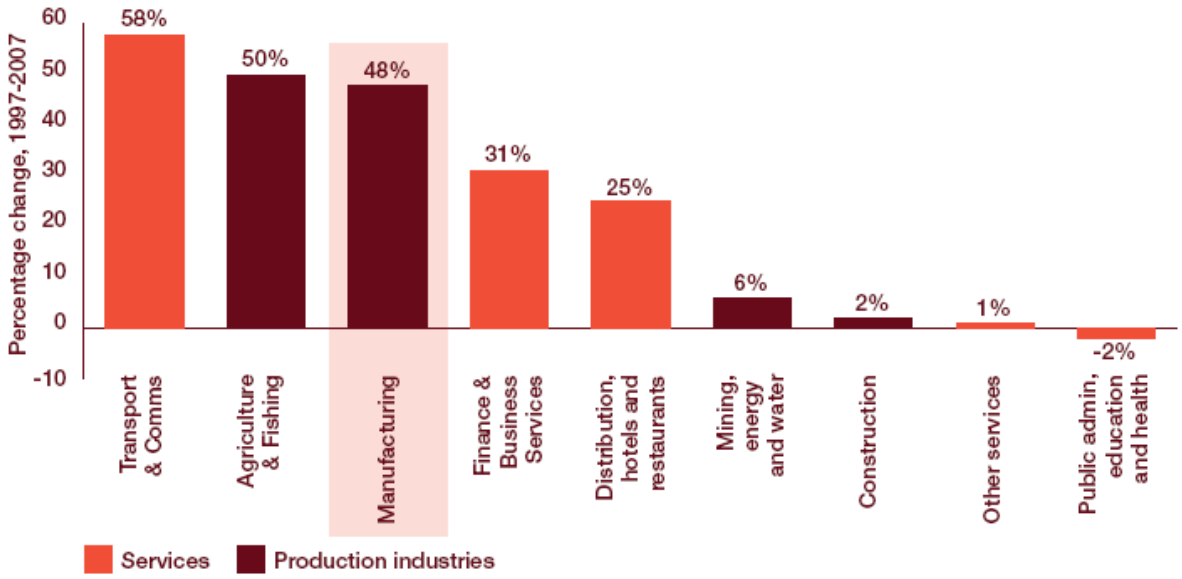
There are four main explanations for this process of 'positive deindustrialisation'. First, it reflects shifts in comparative advantage. Basically, the argument is that many advanced economies are relatively more efficient at producing services – particularly knowledge intensive business services (KIBS) – than they are at producing manufactures. Thus, advanced economies have increasingly imported manufactures from less developed countries – such as Brazil, Russia, India and China - that have a comparative advantage in manufacturing, particularly because of an abundant supply of low cost labour. This view was expressed by Nigel Lawson when, as Chancellor of Exchequer, he stated: 'there is no adamantine law that says we have to produce as much in the way of manufacturing as we consume... If it does turn out that we are more efficient in world terms at providing services than at producing goods, then our national interest lies in a surplus on services and a deficit on goods' (Lawson, 1985, p. 554).

Second, there is the argument that as countries develop and grow, the structure of consumption (which is the largest component of aggregate demand) shifts towards services and away from manufactures. Simply, the argument is that the income elasticity of demand for services is greater than unity, so that the demand for services will outstrip the overall growth of the economy (Gershuny, 1978). This argument has been subject to significant interrogation. Rowthorn and Wells (1987) have argued that when measured in constant prices the demand for manufactures and services tend to increase at similar rates as economies develop. Furthermore, Fuchs (1968) and Baumol, Blackman and Wolf (1989) have argued that the shifts in the structure of demand cannot explain the relative decline of manufacturing and the relative growth of services.

A third explanation of positive deindustrialisation is that it reflects the faster growth of labour productivity in manufacturing compared to that in services - which will lead to the prices of the former falling when compared to the latter. This is likely to lead to a fall in the share of manufacturing in total employment (Baumol, 1967; Fuchs, 1968; and Saxonhouse, 1985). Analysing this differential productivity thesis is problematic, as it is fraught with data problems and limitations. In particular, it is difficult to measure changes in the quality of both manufactures and services, with the problem being especially acute with services as no physical output is produced. Figure 5 shows the productivity growth in the UK in different sectors between 1987 and 2007 based on official data. Although productivity in manufacturing was relatively high, the case that productivity growth is higher in manufacturing than it is in services oversimplifies the differences between sectors of the economy. Furthermore, the official data may

not be a clear representation of the realities of productivity. The data in Figure 5 indicates negative productivity growth in the public sector but this has been shown to be an artefact and a product of poor data (Black, 2012).

Fig 5. Sectoral productivity growth in the UK (output in constant prices per employee), 1987-2007



Sources: UK Office for National Statistics and PricewaterhouseCoopers (2009)

Statistical illusions are also apparent in the fourth explanation of positive deindustrialisation, which explains the perceived decline of manufacturing as the outcome of industrial restructuring, with the reconfiguration of supply chains. Simply, many activities that were undertaken by manufacturing firms (and so were classified as manufacturing) – such as R&D, design, transportation and logistics - have been subcontracted or purchased from external suppliers, and as a result are now classified as services).

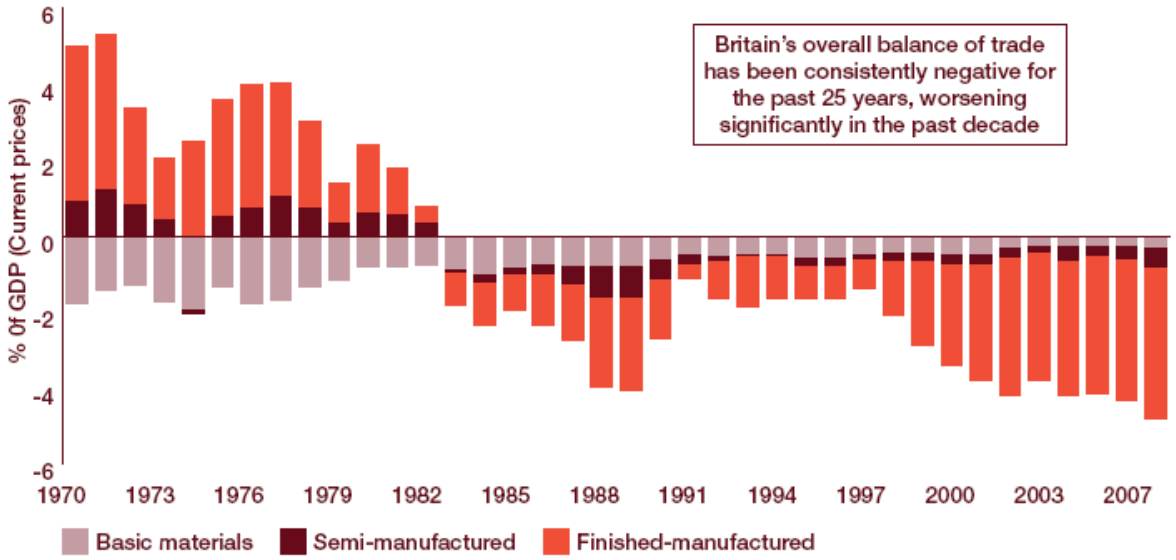
The case that there is something special about manufacturing can be traced back to the arguments that it acts as a dynamic engine of growth (Lewis, 1954; Kaldor, 1966). Within this framework, an excessive decline of manufacturing may be

characterised as negative deindustrialisation as it will lead to slower overall growth of the economy (Rowthorn and Wells, 1987).

There are primarily three arguments in support of the case that manufacturing does matter. First, manufacturing is a source of productivity growth, as manufacturing firms can exploit the benefits of economies of scale. Such economies of scale can lead to increasing competitiveness which can lead to a growth in net exports – boosting aggregate demand and leading to further exploitation of increasing returns. Thus a dynamic manufacturing sector can lead to a virtuous cycle of economic growth. The assumption that productivity growth is faster in manufacturing than services may be too simplistic, but the argument does draw attention to the importance of high productivity sectors – wherever those might be - for the growth of any economy.

Second, there is the argument that manufacturing is important as a source of net exports – and that this is more important than is its share in income or in employment alone. From the industrial revolution onwards, Britain was a net exporter of manufactures – but as shown in Figure 6, this changed in the early 1980s when Britain became a net importer of manufactures. As discussed above, for many this just reflected shifts in comparative advantage. But there is another dimension to the phenomenon – since the early 1980s, Britain has had a structural balance of payments deficit as the growing deficit on manufactures was not offset by a concomitant surplus on services. This has led to the notion that not only does manufacturing not matter, but also that the balance of payments does not matter either. However, a structural balance of payments deficit does matter – as it has to be funded either by borrowing from other countries or by selling assets. This may have been relatively unproblematic in the pre-crisis era – but persistent deficits are unlikely to prove to be sustainable into the future.

Fig 6. UK manufacturing balance of trade by product type as a % of GDP, 1970-2007



Sources: UK Office for National Statistics and PricewaterhouseCoopers (2009)

A third argument is that a dynamic manufacturing sector is important as part of a productive economic system. A systems approach stresses the importance of linkages between the various economic actors within the system. Within this framework, it is important to consider the linkages between manufacturing and others parts of the economy – including services but also universities and the public sector. Such relationships and collaborations are important in generating innovation, technology and growth (Rosenberg, 1983) Two of the most successful manufacturing sectors in Britain are pharmaceuticals and aerospace; both have been supported by active collaboration with, and contracts from, the public sector - in particular the National Health Service and the Ministry of Defence respectively. Many of the products developed in the manufacturing sector, especially in the capital goods sector, are inputs into other parts of the economy (including services) and can be an important source of productivity growth in other sectors. For instance, the three sectors that drove the productivity surge in the USA in the late 1990s were wholesale trade, retail trade and financial services (Solow, 2001). These sectors are in the service economy but their productivity growth was driven by advances in computing, transport equipment and the mechanisation of logistics.

5. Polices for Manufacturing

The issue of the appropriate policies for manufacturing depends on whether the process of deindustrialisation is perceived as positive or negative. If it is considered to be a positive outcome then there may be no cause for concern. However, if deindustrialisation is regarded as being a negative phenomenon then there may indeed be a need for a more positive approach to public policy - although there will still be differences concerning the direction that such policies should take, reflecting the fact that economics is inevitably subject to discussion, debate and disagreement. This is apparent in this volume: for instance we take a very different view to Crafts (1996, 2012 and 2013) on how the economy works and on what would be an appropriate policy framework to generate growth and improve welfare. For those who believe in the power of market forces, policy will be concerned with deregulation and the promotion of competition. In this vein, the interventionist policies of the 1930s and the Keynesian 'Golden Age' harmed both manufacturing and overall economic growth (Broadberry and Crafts, 1992); whereas, the Thatcherite free market policies helped to reverse relative economic decline (Crafts, 1996, 2012 and 2013). Conversely, for those who conclude that the state can play a positive role in supporting manufacturing and the development of new products and processes, the relative decline of manufacturing in Britain reflects the lack of a coherent industrial policy and persistent under-investment (Kitson and Michie, 1996). Within this latter perspective, manufacturing has been in long-term retreat – which poses a serious challenge to the late converts who now wish to promote a 'march of the makers'. Increased manufacturing output per head may prove to be of little benefit to the economy as a whole if it simply represents stagnant output levels delivered with fewer employees – which has been broadly the consequences of, and outcome from, the Thatcher era. Policies need to look beyond productivity levels to the scale of production itself. To turn around this 35-year problem would require a serious industrial policy that provided the necessary productive infrastructure, combined with policies to support and promote manufacturing output levels that would need to include attention to innovation, training and investment, and these in turn require progressive and long-sighted management practices. These have been analysed in detail by, for example, Michie and Sheehan (2003), and Bloom and Van Reenen (2007).

In most of the advanced countries, the state has taken an active role in industrial policy, and has supported key parts of the manufacturing sector; this has been the case in Germany and Japan - and is the case now in newly industrialising countries such as China and Brazil. Frequently, the United States is portrayed as a liberal

market economy which has eschewed interventionist policies. But this has not been the case with industrial policy, where there has been active state intervention to support key industries and promote innovation: pharmaceuticals and biotechnology are supported by the National Institutes of Health; the Defense Advanced Research Projects Agency has invested in information technology; and support for innovation in small and medium-sized enterprises is provided by the Small Business Innovation Research program. As Mazzucato observed (2011, p.19): 'how many people know that the algorithm that led to Google's success was funded by a public sector National Science Foundation grant?' In the US, Governments have been picking winners or 'choosing races' (Hughes, 2012) whilst hiding behind the convenient veil of the free market.

Industrial policy has also been a key element in the growth of the Japanese economy since the 1950s. Japan adopted a policy of: targeting key industries ('picking winners') such as electronics and automotive; providing finance for long-term investment; and adopting protectionist policies. These policies underpinned the rapid growth of Japan particularly from 1950 to 1973. The strong economic growth ended abruptly in the early 1990s, but this reflected a financial crisis following an asset price bubble rather than fundamental flaws in Japanese industrial policy. An active industrial policy has also been a feature of the German economy, in particular since the end of WWII. The German model has focussed on: support for long-term finance; investment in education and training; and a regulated labour market. Furthermore, since the 1970s, there has been an increasing focus on public support for innovation; this has been through the creation of networks and institutions that facilitate the commercialisation and exchange of knowledge (such as intermediate technology organisations such as the Fraunhofer Institutes).

Of all the advanced economies, it is Britain in particular where there has been a systematic failure to pursue any sort of long-term industrial policy. The lessons of other advanced countries shows that industrial policy can promote both the manufacturing sector and overall economic growth. The details of successful industrial policies varies between countries depending on the stage of economic development, and the characteristics of each national economy. But common features include: finance for long-term investment; a focus on training and education; and support for technology, R&D and innovation.

6. Conclusions

The rise and fall of UK manufacturing has been inescapably linked with the rise and relative decline of the UK economy overall. In 1870 the UK was still the workshop of the world, and the country as a whole enjoyed the highest income per head in the world. Traditionally, Britain had earned a surplus in manufacturing trade to pay for net imports in food, fuel and raw materials. This turned into a manufacturing trade deficit following the Thatcher recession of 1979-81, which hit manufacturing particularly hard. The UK's international trading for the manufacturing sector has remained in deficit ever since.

According to the IMF's economic league tables (rather than just for manufacturing), the UK was the 6th largest economy in 1970, and remained there through to 1980, and indeed to 1990, before rising at the expense of the collapse of the Soviet Union, and with the UK switching places with France during the first decade of the 2000s; however, by 2010 France had overtaken the UK again, as by now had China. And as reported above, in 2011, Brazil overtook the UK, which therefore slipped down to 7th place in the world economic rankings.

The UK's Coalition Government in 2012 claims to want a rebalancing of the economy, with a 'March of the Makers', which the 2011 Budget was trumpeted as launching – putting fuel in its tank. There is no reason why the UK manufacturing sector could not grow and prosper, but manufacturing firms do need a financial services sector that is focussed on supporting them rather than 'innovating' new financial products to sell globally. Manufacturing growth areas such as renewable energy technologies have generally seen success for manufacturing in Germany, Denmark, Korea, the US and elsewhere – in some cases related directly to the extent to which their governments responded to the 2008 credit crunch with a 'green new deal' in 2009 and beyond.

One of the more recent contributions to this long debate on the relative decline of UK manufacturing and of the economy more generally comes from the Commission on Ownership that was launched in the UK in 2010 and which issued its final Report in March 2012. The Commission concluded that Britain needs greater corporate diversity, including a larger and more vibrant 'mittlestand' of medium sized family owned companies; improved funding arrangements for SMEs; incentives for employee ownership, including through facilitating employee trust-based ownership; and enabling mutuals to raise investment funds, including by being able to issue bonds to members (Commission on Ownership, 2012, pp.

96-7). Alongside this, the dominant PLC model needs to be reformed, including through giving tax relief to equity finance as well as to debt finance;[4] by requiring a clear statement of business purpose; widening the fiduciary obligations of directors to include a 'duty of stewardship' to deliver this purpose rather than as at present simply to 'have regard' to any interest other than the shareholders; by requiring investment institutions to similarly have stewardship obligations alongside their fiduciary obligations; and by revising takeover rules to no longer give an advantage to firms from countries where companies are less strictly governed than in the UK, and with a strategic public interest test being applied (pp. 98-100). Alongside better stewardship of PLCs within a more corporately diverse economy, the Commission also advocated various enabling strategies, from the Office of National Statistics collecting and reporting consistent ownership data, through to promoting greater employee participation and engagement at work, and helping pension funds exert their ownership rights (pp. 96-102).

The Commission on Ownership was analysing the performance and prospects for the economy as a whole, but their overarching conclusion was to stress the need for and importance of corporate plurality as a route out of the UK's longstanding problems of the PLC monoculture and short-termism.[5] These arguments apply if anything with even greater force to the manufacturing sector than they do to the economy as a whole, with manufacturing firms often suffering from the short-term pressures of quarterly reporting and living with overdraft facilities which can be withdrawn at any time. Conversely, a stronger manufacturing sector would help to deliver much of what the Commission on Ownership identified as being necessary for the future success of the economy as a whole, such as a strengthened and sustainable 'mittelstand'.

A stronger manufacturing sector would help to rebalance the UK economy away from an over-reliance on the banking sector, would help rebalance the UK economy and society in regional terms, is necessary to tackle the continued balance of payment problems that have been created by the trade surplus on manufacturing having been pushed into a trade deficit by the Thatcher recession of 1979-81 from which it has yet to fully recover, and would help support those other areas of the economy that interact with and benefit from a healthy manufacturing sector. Indeed, in many areas the distinction between manufacturing and services are blurred, including within individual companies, and without a prosperous manufacturing sector such companies are vulnerable. To achieve such a rebalancing requires active government policies along the lines referred to above, along with investment in education, skills and innovation.

Notes

[1] In March 2012, Brazil was reported to have overtaken the UK in the international economic league table, having grown by 2.7 per cent in 2011 as against the UK's growth of 0.8 per cent, making Brazil the world's sixth largest economy (*Guardian*, March 6 2012).

[2]'We want the banking system to serve business, not the other way round. We will bring forward detailed proposals to foster diversity in financial services, promote mutuals and create a more competitive banking industry.' (HM Government, 2010, p. 9)

[3] These three contributions were published in the *Economic Journal* in 1996.The debate was published while academics and others were still evaluating the economic effects of the Thatcherite economic policies – of monetarism and financial deregulation – that had been pursued throughout the 1980s and into the early 1990s.

[4] Also supported by the Mirrlees Review – see IFS (2011), especially chapters 17 and 18.

[5] On the detrimental outcomes from such short-termism, see for example the World Economic Forum's report on the *Future of Long Term Investing*, www.weforum.org/issues/future-long-term-investing

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