



The Innovation Economy

Industrial Policy for the 21st Century

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Executive summary

Britain's economy has become unbalanced in recent years. It is overly dependent on the city and cheap credit, unsustainable rises in public sector spending, and trading with the sclerotic Eurozone.

In the past, Governments sought to rebalance the economy through industrial policy, protecting and subsidising sectors and regions that were seen as the future. These policies had a very mixed record. In Britain, they largely failed to protect manufacturing jobs or turn around out of date industries. Policies that restricted competition proved counterproductive, holding back Britain's post war economy. However, there were also other varieties of industrial policy which did have some success, encouraging new firms and investment.

At the heart of today's imbalances is a lack of innovation. Britain should become the friendliest nation for start-ups in the world. Instead of fearing competition, we should encourage it. The Government should itself think like an entrepreneur, taking advantage of new technology, exploring new markets and fully utilising its' assets. Rather than hide ourselves away behind protectionist barriers, we should look to become a world trading hub.

The paper is divided into an introduction and three chapters. The introduction chapter considers the current structure of the British economy and the record of industrial policy. The next three chapters look in turn at imbalances in the private sector, the public sector, and trade.

A. Unleashing Private Sector Enterprise

Problem: Our economy has become too dependent on the city and North Sea Oil. British productivity remains significantly behind our rivals.

Old Industrial Policy: Pick winners and consolidate industries into monopoly 'national champions'.

New Innovation Economy: Take better advantage of Britain's strengths as a knowledge economy, while supporting start-ups. Encourage greater competition in the rest of the economy.

Policies

- 1. Break up corporatist oligopolies in banking, utilities and transport.** We should look to increase competition and break up Government created oligopolies.
 - Introduce full bank account portability for consumer accounts and give the Financial Conduct Authority a responsibility to promote competition.
 - Renewable subsidies should be abolished, and replaced by a uniform carbon tax and subsidised basic research.
 - Network Rail should be broken up into regional franchises with the power to issue bonds, merge train and track, and develop integrated housing and infrastructure investment.
- 2. Exempt new start-ups from business taxes for three years.** We should make Britain the easiest country in the world to start a new company. We should exempt new firms for their first three years from employers' national insurance, business rates, corporation tax and employment legislation. (This could be restricted to companies with fewer than three employees or £500,000 in turnover to reduce costs).
- 3. Jumpstart Britain's venture capital industry by a short term matching of private sector investment.** Traditional banks struggle to take the risk lending to small companies, but a start-up ecosystem depends on ready venture capital. Over the last thirty years, Israel has created the world's second most important tech hub through its similar Yozma programme.

B. *Unlocking the Economic Value of the Public Sector*

Problem: Public sector productivity lags behind the rest of the economy. This increases the burden on the private sector, and ensures that we all eventually pay more for less.

Old Industrial Policy: Draw up five years plans.

Innovation Economy: Create a more entrepreneurial and flexible Government. Take better advantage of the Government's resources such as the NHS data to support the Knowledge Economy.

Policies

- 4. Introduce a growth and competitiveness duty for Government departments.** Supporting the economy should be a priority for all Government departments, not just BIS and the Treasury. We should give each Department and Minister a duty to promote growth and competitiveness.
- 5. Encourage public sector agencies to earn additional income.** Specialist public sector agencies like the examination boards, Care Quality Commission, or the Highway Agency and Network Rail should be encouraged to go and win business from around the world. They should be encouraged to offer additional services and earn money in the UK.
- 6. Regionalise public sector pay and the minimum wage.** By maintaining uniform national minimum wages and wage rates in the public sector, the Government creates imbalances in regional labour markets.

C. Diversify trade away from the EU to the Global Economy

Problem: We have run a persistent trade deficit for the last decade.

Old Industrial Policy: Protect British companies behind tariffs.

New Innovation Economy: Encourage foreign consumers, companies and highly skilled workers to trade with Britain. Use origin-blind policies to attract global capital and talent.

Policies

- 7. Lower corporation tax to 10% by eliminating allowances.** In order to pay for the new rate, we could radically simplify the tax system, eliminating many of the current deductions. For example, removing capital allowances, the deductibility of interest and royalty payments would raise around £35 bn in revenue.
- 8. Develop new partnerships with emerging markets.** The Government should make a rapid decision about expanding aviation capacity, and introduce double tax relief for business air travel. All the key offices of state, our historic ties and our scientific expertise should be used to develop new partnerships. The UK's aid programme should include an element of conditionality focussed on trade.
- 9. Introduce market based immigration visas.** Selling visas to companies or individuals would be less bureaucratic than today's system, allow the Government to control the flow through price changes and ensure that workers only entered the country if they added significant value to the economy.

Introduction

Britain's Unbalanced Economy

The financial crisis of 2007 revealed that Britain's old economy wasn't working. An economy built on consumer debt, government spending, and increasingly risky bets from the City proved unsustainable.

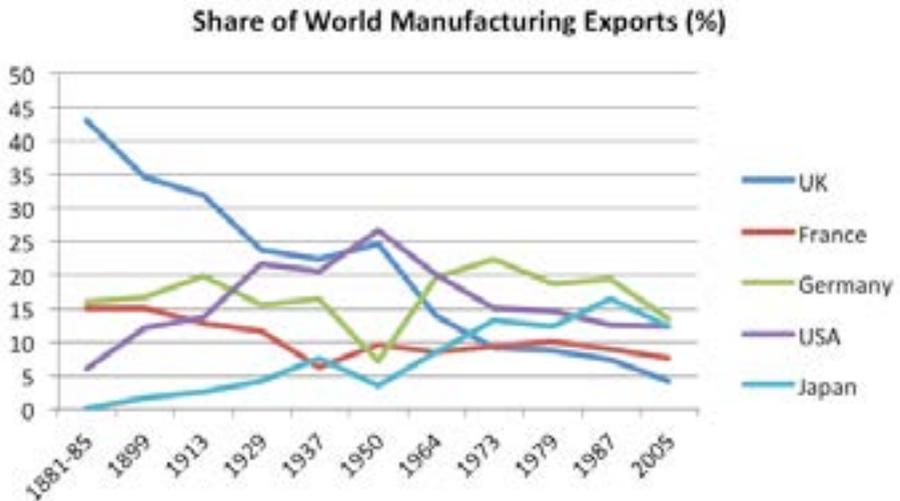
British consumers, companies and the government took on greater debt instead of addressing the fundamental imbalances that hold the economy back:

- Too many of Britain's industries remain uncompetitive. Both the economy and state tax revenues are overly dependent on financial services and North Sea Oil.
- Government innovation lags behind the private sector. We spent more in the public sector, and received less in return. In the regions, high public sector wages drive out private firms.
- Our trade remains dominated by old markets. Our traditional export markets in Europe continue to shrink as a proportion of world trade, while we have not done enough in new, emerging markets.

Britain's Comparative Advantage

Despite these present weaknesses, Britain still enjoys significant strengths.

As a flexible and advanced economy, Britain has often been at the forefront of changes in the world economy. Just as the nineteenth century saw Britain transition from an agricultural economy to the 'workshop of the world', we now mostly work in services and high end technology.



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Britain is unlikely to be able to compete with the cheap labour of the developing world or commodity resources of larger nations. Policies that simply aim to bring about the industries of the past are likely to fail.

However, it is equally a mistake to believe that we no longer 'make things.' Since the 1970s we have developed new specialities in high end manufacturing, in particular in pharmaceuticals, chemicals, and aerospace. As robots become ever more advanced, and cheap labour less of an advantage, it is even possible that manufacturing that could increase again as a proportion of the economy.

¹ Stephen Broadberry and Tim Leunig, The Impact Of Government Policies On UK Manufacturing Since 1945, 2011

Sector	Export growth 1997 – 2010
Computer programming	295%
Materials recovery services	268%
Pharmaceuticals	171%
Business services	168%
Scientific R&D	167%
Financial services	160%
Insurance	112%
Services auxiliary to financial services	76%
Shipping services	69%
Other professional services	59%

What unites our most successful exports in services and manufacturing is their focus on innovation, international markets and high technology. Britain is fortunate in both its geography and heritage. It possesses a convenient language, time zone and historic links with most of the world. At the same time, we have some of the world's best universities and schools, and an enviable record in science, technology, design and culture. London already acts as a world hub.

Unfortunately, we have not always sufficiently taken advantage of these opportunities. Britain has historically been bad at turning academic inventions into profitable businesses. Meanwhile, government procrastination over infrastructure decisions has harmed our connections to the rest of the world.

Industrial Policy: a historical perspective

Under the traditional academic view of industrial policy, the Government believed it could take a more long term view than the private sector. This allowed it to fix imbalances, and invest in the infrastructure, skills and R&D needed by the economy. More controversially, it could 'pick winners' – companies and sectors that need initial support while they built the strength to compete on the world stage.

In the eighteenth century, Robert Walpole protected infant industries by increasing tariffs on foreign competition. At the same time, he lowering the duties on raw materials needed by British manufacturers.

Significant tariffs were introduced in the nineteenth century by America, while Germany protected and subsidised new industries, built new infrastructure and reformed their education system to focus on science and technology.

Although still an element, by the twentieth century the focus of industrial policy had moved on from tariffs. In the wake of the financial crisis of the 1930s, the coalition Government of Britain introduced a strategy of minimising competition, encouraging cartels and protecting businesses behind new tariffs. By the mid 1930s, half of manufacturing output was produced under a cartel.²

This strategy continued after the war as Governments sought to hold onto what were seen as Britain's traditional industries: textiles, steel and shipbuilding. Governments encouraged mergers to create national champion, nationalised and subsidised industries and created new bodies such as the Ministry of Technology or Industrial Reorganisation Corporation.

These policies achieved some successes. The temporary nationalisation of Rolls Royce and British Aerospace in the 1970s saved what were to go on to become highly profitable companies. Internationally, industrial policies seemed to help East Asian countries, particular South Korea, modernise their economies at an accelerated pace. Government sponsored R&D helped develop radar, GPS, and the Internet.

² Barry Eichengreen, *The British Economy Between the Wars*, 2002, pg 35

However, there were also big failures. By protecting inefficient industries, industrial policy held back growth in Latin America, Africa and central Asia. In the UK, industrial policy failed to stop the long term decline of manufacturing, and most of the national champions failed. By restricting competition and lowering the pressure for efficiency, the policies arguably played a key part in Britain's post war economic decline.

By the 1980s, industrial policy had moved on from picking winners. Governments sought to follow rather than lead business, while putting in place reforms that improved incentives. The nationalised industries were sold, while high marginal tax rates were cut.

At the same time, governments created new enterprise zones with ultra low tax and regulation to boost struggling and developing areas. Many of these – Canary Wharf, Dubai or Shenzhen in China - were highly successful.

The Innovation Economy

One lesson from the past is that policies of directly picking winners do not work very well. This is only likely more to be the case in an advanced country such as Britain. Unlike China or Korea we do not have a roadmap or past example to follow. By definition, you can't plan innovation.

Indirect policies have a far better record of success. Creating enterprise zones, privatising state industries and lowering business taxes have all helped to boost growth.

Britain will only grow in the future through innovation in both the private and public sector. The Government can boost competition, rather than restrict it. It can help start-ups, and break up old oligopolies. Finally it can become more entrepreneurial itself, embracing new technology and building relationships with new markets.

Unleashing Private Sector Enterprise

In order to reduce the dominance of the City and North Sea, we need to improve the productivity of Britain's other industries. To do that, we should become more a start-up economy, increasing competition and innovation.

The British economy has become too dependent on financial services and North Sea Oil. According to the ONS, North Sea Oil has been shrinking by 6% a year since 1999³, reducing the economy's productivity as a whole by 1% a year. At the same time, productivity in financial services has fallen by nearly 3% a year since the crisis.⁴

In the short term, we can improve our competitiveness by reducing real wages, or worse, taking on greater credit. However, in the long term, the best way to maintain our standard of living is to improve productivity. Unfortunately, outside manufacturing, British productivity is poor. The latest estimates show British workers to be around 16% less productive than those in other G7 countries.⁵

³ <http://www.ons.gov.uk/ons/rel/elmr/economic-review/january-2013/economic-review--january-2013.html#tab=Stagnant-output-in-2012>

⁴ <http://www.economicsuk.com/blog/001832.html>

⁵ <http://www.ons.gov.uk/ons/rel/icp/international-comparisons-of-productivity/2011---final-estimates/index.html>

Innovation rarely comes from national champions. More often it is the result of fierce competition and new challengers, trying and experimenting with new technologies and business models. The replacement of old inefficient firms with new entrants account for around 20-40% of all improvements in productivity. These start-ups are often based in industry clusters, combining world leading firms, attractive job markets and leading academic researchers.

The Cambridge Phenomenon. Although other areas such as Tech City are competing for the title, the area around Cambridge is arguably Britain's Silicon Valley. As Europe's most successful tech cluster, it is already home to 1,400 high-tech companies that employ 53,000 and earn more than £13 bn. Notable tech companies from Cambridge include ARM, Britain's equivalent to Intel, and the designers of the CPU chip at the heart of nearly every modern gadget. Beyond electronics, it has significant potential to develop world leading technologies in agriculture, renewable energy, clean fuels and biomedicine. Along the A11 corridor are Cambridge University, the John Innes Centre; the Institute of Food Research; the UEA Climate Research unit, and a cluster of precision engineering and renewable energy expertise.

The end of the corporatist 'national champions' such as British Leyland and British Steel increased productivity by more than 20% and was the largest single factor in narrowing the productivity gap between the UK and Germany. In some sectors of the economy, this natural evolution is still working, as the recent closures of Woolworths and Jessops demonstrates.

Unfortunately, in other sectors over cosy relationships between big business and government still protect inefficient companies. Government regulation and the implicit subsidy of too-big-to-fail make it hard for new entrants into the banking market. According to the Federal Deposit Insurance Corporation (FDIC), the US has over 7000 banks while the UK has less than 500. 80% of the market is controlled by the big four. In transport, the combination of the nationalised Network Rail and private sector Train Operating Companies combine the worst elements of private sector short termism and public sector inefficiency. In energy markets, Government is pushing up bills and seeking

to plan the future of the industry through a complex series of tariffs and regulations. This is an example of old fashioned industrial policy at its worst.

Policies

1. Break up corporatist oligopolies in banking, utilities and transport.

We should look to increase competition and break up Government created oligopolies.

As a start, we should introduce full bank account portability for consumer accounts and give the Financial Conduct Authority a responsibility to promote competition. Renewable subsidies should be abolished, and if necessary replaced by a uniform carbon tax and subsidised basic research. Network Rail should be broken up into regional franchises with the power to issue bonds, merge train and track, and develop integrated housing and infrastructure investment.

2. Exempt new start-ups from business taxes for three years.

Creating a new business is incredibly risky. According to the ONS, around half of new businesses fail in the first five years.⁶

We should make Britain the easiest country in the world to start a new company, and wherever possible reduce the risk to encourage more people to take the jump. We should exempt new firms for their first three years from employers' national insurance, business rates, corporation tax and employment legislation. (This could be restricted to companies with fewer than three employees or £500,000 in turnover to reduce costs). only attracts foreign capital and talent, it leaves the job of 'picking winners' to the private sector. In Israel, the programme was so successful that it returned to the government a profit of 50%, and its mission largely achieved, the programme was privatised in 1997.

⁶ <http://www.ons.gov.uk/ons/rel/bus-register/business-demography/2011/stb-business-demography-2011.html#tab-Business-survivals>

3. Jumpstart Britain's venture capital industry by a short term matching of private sector investment.

A start-up ecosystem depends on a ready supply of venture capital. Traditional banks struggle to take the risk lending to small companies, while new business models such as crowd-funding aren't suitable in all cases.

Over the last thirty years, Israel has created the world's second most important tech hub, attracting more than double the amount of venture capital per capita than even America.⁷ A key component in its success was the Yozma programme, in which the Government provides matching funds to investments made by foreign venture capitalists. This not only attracts foreign capital and talent, it leaves the job of 'picking winners' to the private sector. In Israel, the programme was so successful that it returned to the government a profit of 50%, and its mission largely achieved, the programme was privatised in 1997.

⁷ <http://www.economist.com/node/21543151>

Unlocking the Economic Value of the Public Sector

We need to increase the productivity of the public sector to prevent costs growing out of control. We need a much more entrepreneurial state.

While productivity across the economy as a whole increased by around 20% between 1997 and 2010⁸, productivity in the public sector stayed exactly flat, showing no increase.⁹ One unfortunate side effect of private growth is that it drives up wage for the public sector. If this trend continues through future decades – especially as demographics worsen – we will face a hard choice of raising taxes or lowering quality.

We can only avoid this dilemma by creating a more entrepreneurial Government. In order to keep up with the rest of the economy, the state will have to take far greater advantage of new technology. It will have to embrace choice, competition, and be willing to let outdated or bad institutions fail.

Taking advantage of the NHS's data. The NHS can be frustrating to entrepreneurs in the health field. Many innovations are turned away because they can't meet the specifics of NHS bureaucracy. However, this bureaucracy and centralisation also offers a crucial advantage: data. The NHS collects data on hundreds of millions of treatments every year – in 2010 alone more than 400,000 patients were involved in clinical trials. By turning every patient into, in effect, an anonymised research subject, the NHS has the potential to give the UK a world-leading edge in medical research. Use of this data could be licensed to the private sector, turning this into an asset worth billions.

⁸ <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/april-2013/table-prod01.xls>

⁹ <http://www.ons.gov.uk/ons/rel/psa/public-sector-productivity-estimates--total-public-sector/2010/index.html>

Rather than be a burden on the private sector, the Government can act as a key partner and enabler for the Knowledge Economy. Growth and innovation should be seen as much a public sector as private sector responsibility. By blurring the line between the public and the private sector, we can help create a whole new class of entrepreneurs moving freely between the two. This is especially important in areas such as the North East, where 25% of the workforce is employed by the public sector.¹⁰

Perhaps the most successful and uncontroversial industrial policy has been the Government's subsidisation of basic science, research and development. By opening up its resources, the state can work with new start-ups to develop opportunities in some of the future's most important industries: health and education.

Policies

4. Introduce a growth and competitiveness duty for Government departments.

Supporting the economy should be a priority for all Government departments, not just BIS and the Treasury. We should give each Department and Minister a duty to promote growth.

At the same time, we should ensure new laws don't hold growth back, or restrict competition. We should copy Australia, who in 1994 introduced a National Competition Policy. The central feature of the reforms was a Legislation Review Programme, requiring any law – whether on the statute books or new – to be shown to confer more public benefit than its anti-competitive effect. In 2003, 49% of laws on the federal statute books had an unjustified anti-competitive element: a figure that fell to 22% two years later.¹¹ The effect was felt from liberalised shop trading hours in Tasmania to an explosion of taxi licences in Western Australia, and the scrapping of limits on bakery operating hours in New South Wales to the revitalisation of Victoria's sacred dairy industry.

¹⁰ <http://www.parliament.uk/briefing-papers/SN05625.pdf>

¹¹ OECD (2010): "Competition Policy in Australia". OECD Reviews of Regulatory Reform

5. Encourage public sector agencies to earn additional income.

The best way to learn entrepreneurial skills is to face the challenge of having to sell to real customers. We should follow more the BBC model, allowing and encouraging state organisations to earn additional income on top of their core public functions.

Specialist public sector agencies like the examination boards, Care Quality Commission, or the Highway Agency and Network Rail should be encouraged to go and win this business from around the world. Their new revenues would help reduce government spending and drive growth.

6. Regionalise public sector pay and minimum wage.

Average weekly wages in the UK vary from around £460 in Northern Ireland to around £653 in London.¹² By maintaining uniform national minimum wages and wage rates in the public sector, the Government creates real imbalances in regional labour markets. The public sector in high wages areas can't afford the staff it needs, while in the low wage areas the public sector crowds out the private. In one survey for the IOD, around 28% of manufacturers claimed that they had struggled to compete with the private sector for highly skilled workers.

¹² <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2012-provisional-results/stb-ashe-statistical-bulletin-2012.html#tab-Regional-earnings>

Diversify trade away from the EU to the Global Economy

We should encourage foreign consumers, companies and highly skilled workers to invest in Britain.

If Britain has a longstanding industrial strategy, it is as a highly open economy, the world's leading proponent of free trade. Exports make up around a quarter of spending in the domestic economy, and London is already arguably the world's hub city. Despite the recent bad news, Britain has many success export stories: cars, aeroplanes, universities, tourism, culture.

Britain should be at the forefront of negotiations for a transatlantic free trade. The potential for a single zone, covering 50% of global output, has now been recognised by both President Barack Obama and the Prime Minister. Britain in particular would benefit from a greater opening up of markets in services.

However, we also need to refocus our economy on new export markets. Despite sterling falling by a quarter in value, our trade deficit has only moderately improved. The declining Europe makes up around half of our exports, while the new giants of China, India and Brazil make up less than 5%.¹³ One way the Government can help is by building greater cultural, official and personal links. Many universities and schools, for example, are already planting new branches in emerging economies.

¹³ <http://www.economist.com/node/21543186>

Policies

7. Lower corporation tax to 10%.

Lowering the corporation tax rate would both support British companies and their workers, and encourage greater foreign investment. A 10% rate would give the UK the lowest headline rate in the EU, and among the lowest in the world.

In order to pay for the new rate, we could radically simplify the tax system, eliminating many of the current deductions. For example, removing capital allowances, the deductibility of interest and royalty payments would raise around £35 bn in revenue.

8. Develop new partnerships with emerging markets.

We should introduce a multipronged strategy to help build new partnerships with emerging markets. To encourage the private sector, we should make a rapid decision about expanding aviation capacity, and introduce double tax relief for business air travel.

The Government itself should utilise all the key offices of state, our historic ties and our scientific expertise to develop new partnerships. The UK's aid programme should include an element of conditionality focussed on trade deals. This is good for both the recipients – trade is the best form of aid – and for ensuring Britain can compete with competitors such as China.

For example, the UK could create a 10-year collaboration in agriculture with India – supply them with British plant science, seeds, training and food processing expertise.

9. Introduce market based immigration visas.

The Government is committed to reducing immigration, but at the same time highly skilled immigration is crucial for growth and business.

Selling visas to companies or individuals would be less bureaucratic than today's system, allow the Government to control the flow through price changes and ensure that workers would only come if they added significant value to the economy.

Conclusion

The more equal, globalised world of the twenty first century offers both an opportunity and a challenge to Britain. We are unlikely to out compete the new economic through lower wages or greater natural resources. If we are to prosper, it must be through innovation.

Innovation, by its very nature, can't be planned. Instead, a modern industrial strategy most look to unblock the barriers to innovation. Instead of directly backing winners, we should look to support the champions of tomorrow: providing tax breaks and lower red tape for start-ups and deprived areas. The Government and the Civil Service should take greater advantage of new technology, while Britain should seek to be world's most welcoming destination for foreign investment.

For too long, Britain has an economy dominated by regulation and debt. This has failed to deliver sustainable growth. We should put our trust in innovation and competition instead.

About the Free Enterprise Group

Objectives

- Encourage a competitive and free economic environment
- Raise the global economic standing of the United Kingdom
- Challenge monopolies and oligopolies
- Free individuals to create, innovate and take risks

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