

The Great Stagnation

Why Britain Stopped Growing



Edited by Daniel Freeman & Kristian Niemietz

The Great Stagnation

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THE GREAT STAGNATION

Why Britain Stopped Growing

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AND KRISTIAN NIEMIETZ

with contributions from

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FOREWORD

Growth. In theory, every party wants it. Indeed, with the exception of the Green Party, all the parties insist that it is their ‘priority’. So why, relative to comparable countries, is it not happening? How is it that Britain – the breeding-ground of so many inventors and Nobel Prize winners, the nation that engendered the Industrial Revolution, which is the central fact of your life and mine – is stagnating?

The truth is that, while all our politicians claim to want growth, they are not prepared to do the things that would enable it. When Sir Keir Starmer came to office, he told us that he would ‘pull the lever called growth’, as if his predecessors in all parties had, for some mystifying reason, chosen to leave it unpulled.

What he discovered on entering Number 10 was that the easy levers had all been tugged long since. Getting prosperity back into our economy, returning to the growth rates we took for granted for most of the twentieth century, requires making tough decisions as opposed to just talking about them. No prime minister since Tony Blair in his first term has been prepared to do that.

We must stop pretending to ourselves that there is a convenient eye-level lever just waiting to be grasped. The authors in the pages that follow begin by showing why no

such lever exists, and why those who claim that our poor economic performance is the result of some specific policy error or exogenous shock – austerity or Brexit or the Ukraine war – are deluding themselves.

We need to understand that the machine to which the lever is connected is malfunctioning. The structure of our juridical and governmental machine makes the pursuit of growth, in every sense, unprofitable. Our authors describe, in pitiless detail, a legal regime that makes it impossible to build the infrastructure that every incoming government sincerely wants; that has burdened us with the most expensive energy in the developed world; that makes us pay more to build fewer houses than any other developed country; and that penalises the work, saving and investment on which output depends.

Though we like to blame others, we have spent a quarter of a century rationing our land, capital, energy and labour – taxing them, regulating them, forbidding their use. Our stagnation is a policy we adopted, clause by clause, and have yet to repeal.

That is the sombre news. The hopeful news follows directly from it. What was done by statute can be undone by statute. A nation that legislated itself into decline can, with better deliberation, legislate itself out. We did this to ourselves – which means, thank heaven, that we can undo it.

DANIEL HANNAN

Director General, Institute of Economic Affairs

July 2026

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1 INTRODUCTION

Daniel Freeman and Kristian Niemietz

Britain has a growth problem.

Between 1955 and 2007, real GDP per capita grew by an average of 2.3 per cent per year. But since 2007, our trend rate of growth has fallen to less than a third of what we had come to expect over the previous half-century. This has real impacts on people's lives. A child born in 1980 would on his 18th birthday find a country that was 57 per cent richer than when he was born. A child coming of age in 2025, however, would find himself in a country that had only grown 8 per cent richer over the course of his lifetime.

The purpose of this volume is not to solve the problem of British growth – or rather, its absence – in a couple of hundred pages. Although most chapters do contain broad outlines of measures that could help alleviate the problem, the emphasis is on the diagnosis. The main purpose of this book is to examine the key factors that have contributed to two decades of lost economic growth.

In the following chapter, Dr Tyler Goodspeed sets out the extent of the problem facing the British economy and proposes his own credit-based explanation for anaemic growth since the Global Financial Crisis (GFC).

Goodspeed presents a convincing case that post-GFC financial regulation in the context of Britain's highly concentrated banking sector starved non-financial businesses in the UK of access to bank credit. Instead, banks were incentivised to take onto their books larger quantities of what regulators saw as safer government debt at the expense of the private sector. For Britain, Goodspeed argues, the 'credit crunch' was not a one-off correction but following the Basel III framework, became a permanent state of affairs.

Dr Kristian Niemietz's chapter describes Britain as an economy which systematically – and needlessly – deprives itself of some of the key input factors that a prospering economy requires, especially housing and commercial premises. We are trying to squeeze a twenty-first-century economy into the built environment we have inherited from the previous two centuries, refusing to give it the physical space it needs to grow. In Niemietz's analysis, Britain's economy is the equivalent of a Bonsai tree, a tree which has as much growth potential as any other tree, but which nonetheless does not grow – for the simple reason that it is not given the space it needs to do so.

Dr Valentin Boboc tells a similar and interlinked story in his chapter highlighting the role of infrastructure in choking Britain's growth. This is not, as is sometimes claimed, the result of a niggardly state refusing to invest sufficiently in public transport. Indeed, as Boboc points out, Britain in the twenty-first century has spent comparable or higher sums than many of our peers yet with remarkably little to show for it. According to Boboc, the

problem is rather that what we do spend results in so little and takes so long to get done.

David Turver highlights the critical role of another key input factor of economic life which Britain systematically rations, and needlessly deprives itself of: energy. He shows how energy costs began to rise long before Russia's 2022 invasion of Ukraine, and have a lot more to do with policy choices than with adverse geopolitical events. Britain has the potential to be an energy-rich country, but chooses not to be one, thus choking off prosperity-generating economic activity.

Tom Clougherty makes a powerful case for the role of the tax system in understanding the UK's growth struggles. Over the majority of this period, it is not so much a case of an overall tax burden that is too high, although this has also become a problem, especially in the post-Covid period. Rather, what sets the UK apart is a tax system that is particularly poorly designed, unstable and which, since the GFC, has become increasingly reliant on a narrower base. Conservative, Labour and Liberal Democrat politicians have all made much of their efforts to make the British tax system more progressive. In a sense they are right to do so; the British fiscal system has become much more progressive over the last twenty years. But in the process, it has also increased the severity of economic distortions, leaving us all worse off.

While most of the chapters in this book focus on areas in which the UK underperforms relative to other developed countries, Professor Len Shackleton's account of the changes to the labour market is one of advantage

steadily squandered. Britain has gone from a country with an unusually flexible and dynamic labour market, to one which is increasingly similar to the European average. As a general rule, you can get away with a lot of bad economic policy if you get enough right. Employment law highlights how the UK since 2008 has done little to improve what it gets wrong, while squandering its advantages.

If we want to understand what caused Britain's economic slowdown, we also need to understand what did not cause it. Julian Jessop's chapter addresses an often-heard explanation which is popular but wrong, namely, what we might call the 'Austerity-Brexit double whammy' theory. Its proponents argue that the UK's economy was first weakened by the spending constraints of the Coalition era (2010–15) and then fatally undermined by the results of the 2016 EU referendum and Britain's subsequent departure from the EU in 2020. Jessop's chapter should not be read as a 'defence' of either austerity or Brexit. His point is merely that the economic impact of both is ambiguous, and even under worst-case assumptions, nowhere near large enough to explain Britain's growth slowdown.

This book is part of a long-term project, a series of IEA publications, events, conferences, lectures and podcasts which will be released over the next two years. This project will seek to bring together academics, policymakers, educators and opinion-formers from Britain and beyond to help answer the questions thrown up by this book: if we know what is going wrong, what can we do to solve it?

We are extremely grateful to the authors who contributed to this volume, along with the anonymous peer reviewers in academia and other think tanks who scrutinised and improved early drafts.

We also thank the John Templeton Foundation for a grant which helped make this book and the wider project possible.

2 CREDIT

Tyler Goodspeed

The UK economy never really recovered from the Global Financial Crisis (GFC).

Though economic output and employment did eventually surpass 2007 levels, they never got to where they would have been had the recession never happened and the UK economy simply continued to grow at its pre-2008 trend.

The consequence of that disappointing economic performance is that after achieving near-parity in 2007, the UK today is approximately 40 per cent poorer per person than the US. A US worker could stop producing in August and still produce more in the year than the average UK worker working through to the end of December. The poorest state in the US is Mississippi; if the UK were a US state, it would be poorer than Mississippi.

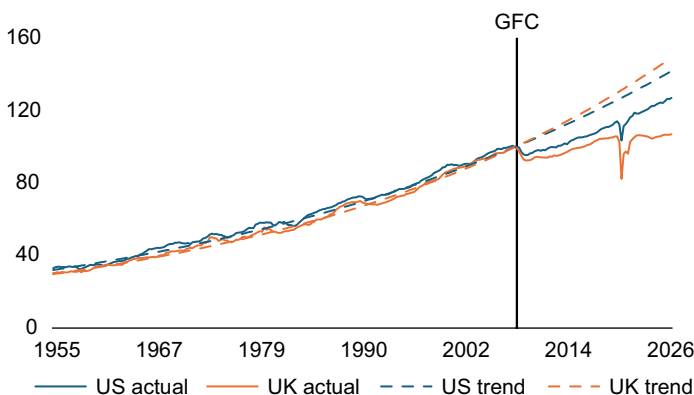
For years, policymakers have insisted that this was typical – that long, slow recoveries follow longer, deeper

Note: This chapter updates and extends a lecture the author delivered at the Institute of Economic Affairs on 9 December 2024 (see Goodspeed 2024). The views and opinions expressed are those of the author and are not intended to represent the views or opinions of any other person or entity.

recessions, and that recovery from financial crises are particularly weak and protracted. But the reality is that the UK's record of economic stagnation after 2009 was both atypical, and a policy choice, specifically, a financial policy choice.

To illustrate the magnitude of the economic deceleration in the UK after 2009, in Figure 1 I plot real gross domestic product (GDP) per capita in the US and the UK since 1955 relative to estimated long-run trends. For both economies I index the level of real GDP per capita to their 2008:Q1 levels.

Figure 1 Real GDP per capita, 1955–present;
index, 2008:Q1 = 100



Sources: BEA; U.S. Census Bureau; ONS, OECD; World Bank; BoE; author's calculations.

The figure reveals that both economies exhibited remarkable fidelity to similar long-run trends in real GDP per capita through the first half of 2008. Despite multiple

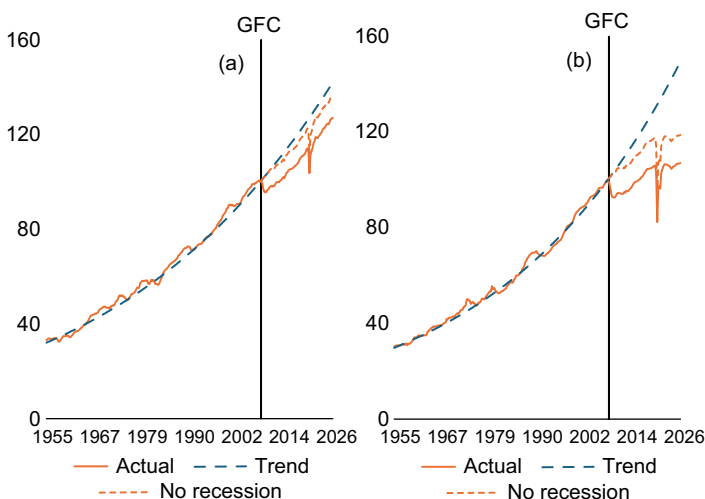
recessions, from 1955 until 2008 both economies adhered closely to trend, with growth in real GDP per capita virtually indistinguishable between the two (slightly less than 2.3 per cent in the UK versus slightly more than 2.1 per cent in the US).

However, after the 2008/09 recession, real GDP per capita diverged sharply from long-run trend in both economies. Specifically, there was a persistent, negative level effect on real GDP per capita experienced by both economies. But the effect of 2008/09 was much worse in the UK because it was also associated with a persistent change in the rate of growth. The US suffered a drop in the level of economic activity but then essentially returned to trend growth. In contrast, the UK experienced both a sharp drop in the level of economic activity and a decline in the subsequent rate of economic growth.

Indeed, the effect is even more pronounced if one considers a counterfactual scenario in which there was no recessionary economic contraction in 2008/09. In Figure 2, I plot real GDP per capita in both economies assuming that, instead of contracting in 2008 and 2009, both the US and UK economies simply expanded at historical trend and then thereafter grew as they did. As can be seen in the figure, if there was no recessionary contraction in 2008/09, the US economy would essentially have continued to expand at long-run trend. But the level effect during the recession can only explain about a third of the deficit of UK real GDP per capita relative to trend; the rest is attributable to a change in the subsequent rate of UK economic growth.

One explanation for this sharp divergence from long-run trend is that deeper recessions – particularly those coincident with a financial crisis – are characterised by slower recoveries. But the differential recoveries in the US and UK already rebel against that hypothesis. After all, both economies experienced contractions in 2008/09 of roughly similar magnitude (approximately 5–7 per cent), both of which were coincident with a financial crisis.

Figure 2 Real GDP per capita assuming no 2008/09 recession, 1955–present; index, 2008:Q1 = 100: (a) US; (b) UK



Sources: BEA; U.S. Census Bureau; ONS, OECD; World Bank; BoE; author's calculations.

Moreover, though oft repeated, it is simply not true that economic recoveries perennially violate Newton's third law of motion that for every action there is an equal

and opposite reaction. Examining 132 recessions in the UK and US over the past four centuries, in a new book I find that the conventional narrative about slow recoveries following worse recessions is inconsistent with the historical record (Goodspeed 2026). On average, longer, slower recoveries do not follow longer, deeper recessions.

For both economies, the duration of a recession has no effect whatsoever on either the height or speed of the subsequent recovery. Though the depth of a recession does indeed have a large effect on the height of the subsequent economic recovery, it is precisely the opposite effect to that postulated by apologists for the weak recovery from the GFC. In both the UK and US, deeper recessions are typically followed by higher, not shallower, rebounds. The same holds for the speed of recovery: faster, steeper declines in economic output are typically followed by faster, steeper rebounds. So far from perennially violating it, economic recoveries in fact typically obey Newton's third law.

Over the broad sweep of history, nor are financial crises in either economy associated with slower recoveries. On average, since 1700 the UK economy recovered no faster or slower from the 16 recessions involving financial crises than from the 44 recessions that did not. Scholars have recently found a similar result over the past 150 years for the US (Bordo and Haubrich 2017).

The myth that long, slow recoveries must invariably follow long, deep recessions is a convenient one for economic policymakers over the past 15 years because it acquits them of any responsibility for the anaemic growth that followed the 2008/09 recession. But as I demonstrated in

a recent lecture at the Institute of Economic Affairs, UK policymakers are not innocent with respect to the poor performance of the UK economy since 2008, though the true culprit is often mistaken (Goodspeed 2024).

One policy candidate for the UK's sharp divergence from trend is that the slow recovery is attributable to relatively contractionary fiscal policy between 2010 and 2015. But without debating its purported merits or demerits, fiscal austerity cannot explain the relatively poor performance of the UK economy post-2009 because the US effectively did austerity too between 2010 and 2016 as Congress enacted budget sequestration and state and local governments retrenched after 2009. Indeed, government expenditures contributed negatively to real GDP growth in the US from 2010 through 2014, inclusive.

Another candidate is that suboptimal policies toward land, labour and capital have resulted in the UK economy operating well within the frontier of production possibilities. Under this thesis, the UK – and most of western Europe – are now so far from the frontier of technologically feasible production possibilities that the real change over the past two decades has been a degradation in the ability of the economy to fully employ existing inputs, let alone learning how to utilise those inputs more productively.

For example, land is an important factor of production. While there is no such thing as a free lunch, there are some cheap lunches. One cheap lunch is simply allowing people and businesses to move from where productivity growth is relatively low and unemployment relatively high to where productivity growth is relatively high and unemployment

relatively low. Unfortunately, in the UK that movement is constrained because the Town and Country Planning Act effectively constrained the outward growth of the UK's most productive urban conurbations.

Capital is another key factor of production. In the UK, businesses – and particularly small- and medium-sized enterprises – derive at least 60 per cent of their external financing from banks. In the US this number is less than 40 per cent, with the majority of external financing coming from venture capital, private equity, angel investors, other non-bank sources of capital. In addition, thousands of regional banks engage in relationship lending.

This matters because smaller, younger enterprises looking to expand may struggle to access credit through conventional bank loans because they lack credit history and physical assets that they might pledge as collateral. To illustrate this point, one might consider tech companies, whose primary assets are intangible, namely, their ideas. Without non-bank sources of credit, many such firms may be unable to access external financing, and instead be forced to rely on cash flow and retained earnings.

Finally, there is the most important factor of production, namely, labour. The UK faces stronger demographic headwinds than the US, with a population that is on average older and expanding more slowly. Yet, the UK maintains a higher average tax rate on labour income. Moreover, whereas in the US one has to earn 8.7 times the average wage before paying the top marginal tax rate, in the UK, one need only earn 2.2 times the average wage before paying the top marginal rate (OECD 2026). This

compounds challenges of labour force participation because older workers tend to respond more to changes in marginal personal income tax rates than younger workers.

Thus, land, capital and labour are not being fully, efficiently employed.

However, the challenge for the thesis that the UK's poor economic performance since 2008/09 is attributable to its distance from the frontier of production possibilities is that all these impediments to the full utilisation of land, capital and labour have been longstanding.

The Town and Country Planning Act has been law since 1947. One could surmise plausible reasons why those restrictions could become more binding over time as network economies and agglomeration effects have become more important over time. But there is little rationale for why a 60-year old law should have become discontinuously more binding after 2008.

Moreover, though economically harmful, building restrictions in the US did not forestall productivity advances there. Indeed, the region around Silicon Valley has been one of the top performers in productivity growth in the US, despite the Bay Area maintaining among the most stringent zoning restrictions in the country.

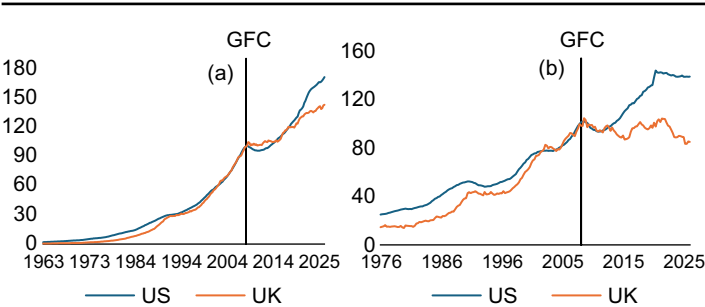
While the UK maintains higher tax rates on labour income, that was not a novel development in the aftermath of 2008. Though labour force participation in the UK was historically lower than in the US, since 2013 labour force participation in the UK has been higher than in the US.

Finally, though UK businesses may be disproportionately reliant on conventional bank lending for external

finance, that is similarly a feature of longstanding prov-
enance. In 1931, a parliamentary committee report even
identified what subsequently became known as ‘the Mac-
millan Gap’, named after the committee’s chair, Hugh
Pattinson Macmillan. The report found that, compared to
that of the US, the British financial system historically did
not do a good job channelling investment into small- and
medium-sized enterprises. That was simply not what the
City of London specialised in.

Rather, the main reason the UK economy recovered
so slowly after 2008/09 was that post-2009 regulatory
changes on both sides of the Atlantic effectively made it
harder and more costly for banks to lend to private house-
holds and businesses, changes that were simply much
more binding on the more bank-intensive UK economy.

Figure 3 Real credit to the private non-financial sector,
1963–present; index, 2008:Q1 = 100: (a) total
private sector; (b) private business sector



Sources: BEA; ONS, BIS, IMF; author’s calculations.

Figure 3 reports the total supply of credit to the private
non-financial sector, adjusted for inflation, in the UK and

US since 1963 (a), as well as the inflation-adjusted total supply of credit to the private non-financial business sector in both economies (b).

While total credit to the private sector initially declined by more in the US after 2008, it also rebounded much more strongly and, relative to early 2008 levels, by mid 2015 had already surpassed private sector lending in the UK (a). By the end of 2025, in real terms lending to the private sector was 70 per cent above its 2008 level in the US, versus just 43 per cent in the UK.¹

The contrast is even more stark when one examines total lending to the private business sector specifically (b). Whereas real credit to the private business sector in the US recovered to its early 2008 level by mid 2013, in the UK it is still 15 per cent below its level in early 2008.

Why might the 2008/09 recession have had a more persistent effect in the UK than in the US? In my 2024 IEA lecture and book, *Recession: The Real Reasons Economies Shrink and What to Do About It* (Goodspeed 2026), I demonstrate that the real reason the UK economy violated Newton's third law of motion after the 2008/09 recession was an economic policy regime change.

Specifically, through changes in financial regulation, policymakers on both sides of the Atlantic effectively mandated that their economies produce with less of a critical input for which over any economically meaningful time

¹ Though this reflects changes in both credit supply and credit demand, in preliminary econometric analysis exploiting cross-country variation in intention-to-treat with post-GFC financial regulation, I find that it is primarily a function of changes in credit supply.

horizon there is limited ability for households and businesses to find substitutes, namely, the provision of bank credit.

Following implementation of successive rounds of Basel banking accords, on both sides of the Atlantic after 2009 banks exceeding certain asset thresholds had to hold more regulatory capital and be subjected to enhanced stress testing, failure of which required either reduction in the size of their balance sheets or else the substitution of lending to sovereign governments – carrying a risk weight of zero – for lending to higher-risk-weight lending to the private sector. After 2010, the UK also imposed a bank levy on the size of bank balance sheets, which exempted liabilities that were backed by UK government bonds. Post-2009 financial regulations also mandated liquidity coverage ratios for banks, requiring that banks hold enough high-quality liquid assets – namely, government bonds – to cover 30 days of liquidity needs in excess of cash flow.

These regulatory changes had a much bigger impact on the UK, first, because British businesses were historically more reliant on banks for external financing and, second, because the UK has fewer banks that are on average larger and therefore were more likely to be treated by the new regulatory regime. Indeed, there are fewer than 300 banks in the UK serving approximately 29 million households, compared to about 5,000 banks serving approximately 134 million households in the US.

So British banks were more likely to exceed the size thresholds above which financial institutions were subject to the new regulatory requirements. Moreover, with fewer

non-bank alternatives to the provision of private credit, a greater share of UK lending was subject to a regulatory regime that effectively penalised lending to perceived higher-risk small- and medium-sized businesses versus lending to the perceived lower-risk public sector.

For small- and medium-sized UK businesses in particular, the effects of the post-2009 regulatory regime have been substantial, resulting in higher – and still rising – barriers to credit access (UK Finance 2025; Ernst & Young 2024). Indeed, my back of the envelope calculations suggest that as much as 30–50 per cent of the decline in UK credit to the private business sector can be accounted for by the substitution of public for private sector lending by UK banks. And this is not unique to the UK: European economies with similar reliance on banks for external business financing and fewer but on average larger banks experienced similar outcomes after 2009.

Though the decline in credit reflects shocks to both credit supply and credit demand, it is nonetheless a searing indictment of UK financial policy over the past 15 years. Before 2008, approval rates for new bank loan applications by small- and medium-sized UK businesses were often 80–90 per cent; by 2024 that had dropped to fewer than half. The latest instalment of new rules – so-called Basel 3.1 – is likely to create an even more challenging environment for UK businesses seeking external financing (Ernst & Young 2024).

Sadly, the evidence from four centuries of economic history is that the disappointing UK recovery after 2009 was both atypical and unnecessary. Economies typically

rebound sharply from deeper recessions. That the UK economy has not is the consequence of policy choices. No economic policy is without trade-offs.

References

- Bordo, M. and Haubrich, J. (2017) Deep recessions, fast recoveries, and financial crises: evidence from the American record. *Economic Inquiry* 55(1): 527–41.
- Ernst & Young (2024) Impacts of Basel 3.1 on SME lending and BTL mortgages: focus on mid-tier banks. Ernst & Young LLP, London (<https://www.ey.com/content/dam/ey-unified-site/ey-com/en-uk/industries/banking-capital-markets/documents/ey-pov-impacts-of-basel-on-sme-lending.pdf>).
- Goodspeed, T. (2024) The real reason UK growth collapsed after 2008 (<https://insider.iea.org.uk/p/the-real-reason-uk-growth-collapsed>), 9 December. Institute of Economic Affairs.
- Goodspeed, T. (2026) *Recession: The Real Reasons Economies Shrink and What to Do About It*. London: Basic Books.
- OECD (2026) Personal income tax (PIT) – top statutory and marginal tax rate. OECD Data Explorer ([https://data-explorer.oecd.org/vis?lc=en&tm=income%20tax%20rates&pg=0&hc\[Topic\]=&snb=93&vw=tb&df\[ds\]=dsDisseminateFinalDMZ&df\[id\]=DSD_TAX_PIT%40DF_PIT_TOP_EARN_THRESH&df\[ag\]=OECD.CTP.TPS&df\[vs\]=1.0&dq=.A.....S13.....&lom=LASTNPERIODS&lo=1&to\[TIME_PERIOD\]=false](https://data-explorer.oecd.org/vis?lc=en&tm=income%20tax%20rates&pg=0&hc[Topic]=&snb=93&vw=tb&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_TAX_PIT%40DF_PIT_TOP_EARN_THRESH&df[ag]=OECD.CTP.TPS&df[vs]=1.0&dq=.A.....S13.....&lom=LASTNPERIODS&lo=1&to[TIME_PERIOD]=false)).
- UK Finance (2025) Written evidence (PMG0042): growth of private markets in the UK following reforms introduced after 2008. UK Parliament, 10 December (<https://committees.parliament.uk/writtenevidence/157356/pdf/>).

3 BUILDINGS

Kristian Niemietz

Introduction: in defence of stupid growth

Economies can grow by mobilising more input factors, or by finding ways to utilise their input factors more efficiently, where ‘more efficiently’ can refer to the efficiency of one factor of production in isolation, or the inefficiency in the interplay of the factors.

This is the insight formalised in the famous Solow–Swan Growth Model in the 1950s. It has since been expanded and refined, but it remains a basic building block for our understanding of economic growth – or, more relevant for the purposes of this chapter, its absence.

Economics commentators have often treated the first of these options – mobilising more input factors, or ‘extensive growth’ – with some disdain. They see it as unimaginative, and unsophisticated. When writing this chapter, we asked an AI program to summarise the economic literature on growth models, and it described extensive growth as ‘the brute force method’, which sums up this attitude. We appear to associate extensive growth with the kind of growth we saw in the Soviet Union during the first Five-Year Plans, where the regime simply forced

people to work very long hours, suppressed consumption to achieve extremely high reinvestment rates, and imported big, bulky capital goods. This method can produce growth of a sort, but it is clearly not the smart, ideas-led, innovation-led growth – or ‘intensive growth’ – that excites economics commentators. If intensive growth is ‘smart growth’, then by implication, extensive growth would be ‘stupid growth’.

This chapter is a defence of stupid growth: of the economics of using more stuff that is already there, even when this does not involve the reinvention of the wheel.

Purely from an economics perspective, using more inputs may indeed seem like a simple method to generate growth. It involves neither new technologies, nor organisational innovation, nor improvements in human capital, or any of the things that are difficult to achieve on the ground. But if we switch from a pure economics to a political economy perspective, we get a very different impression. From a political economy perspective, quite often, being ‘pro-innovation’ is easy, while mobilising inputs is the difficult part.

At least in the abstract, ‘innovation’ is politically popular. Politicians like to name-drop success stories in sectors that are considered ‘innovative’, in the hope of being able to bask in their reflected glory (even if these successes have little to do with any government policy). At the moment, it is almost obligatory for economic policy speeches to reference AI technology, in the way that equivalent speeches from 25 years ago would have referenced the Internet.

This is not just lip service. Britain really has multiple overlapping industrial policy programmes, with billions of pounds behind them, which aim to promote innovation.¹ This is not a comment on whether any of these programmes actually do any good. The point is merely that at the policy level, measures to support innovation are popular, and politically easy.

In contrast, reforms aimed at mobilising existing input factors are often wildly unpopular, to the point of being considered politically impossible.

Internationally, a good example is attempts to raise the retirement age. This is usually primarily intended to stabilise the finances of the pension system, but it also has the effect of increasing labour supply among older age groups (an economic input factor). Despite its obvious benefits, it is one of the most difficult and controversial reforms a politician could touch, and in some places (e.g. France or Greece), it is a graveyard for political careers.

Another good example is attempts to increase the flexibility of the labour market in order to reduce unemployment, such as relaxing employment protection against dismissal or freezing minimum wage levels. This is usually primarily intended to help the unemployed themselves, but what is good for the unemployed is, of course, also good for the economy as a whole, since it enables it to make better use of its potential labour force. Still, such

1 For example, UK Research and Innovation, which the government describes as ‘an executive non-departmental public body’ that acts as a ‘national funding agency investing in science and research’ has an annual budget of £9.2bn (UKRI 2025).

measures are also remarkably politically challenging, even – or especially – in places with chronically high unemployment (e.g. France or Spain).

A third example is welfare reforms that aim to reduce welfare dependency, getting people off benefits and into work. Those are usually primarily fiscally motivated, but, again, there is a positive economic effect as well, as it leads to an increase in labour supply. Such reforms *can* be popular when the political mood is ripe (e.g. the ‘workfare’ reforms in America in the 1990s). But there are also examples of governments feeling pressured into humiliating U-turns (e.g. the UK in 2025), or even losing elections over welfare reforms (e.g. Germany in the mid 2000s). The political difficulty is that opponents will often frame such reforms as ‘an attack on the most vulnerable’, which, whatever the actual policy content, is terrible political optics.

The list goes on. The point is that politically, it is far easier to set up yet another ‘innovation hub’ or yet another ‘industrial policy taskforce’ – even when serious amounts of money are being committed – than to pass the kinds of reforms that mobilise dormant or underused inputs. So we should not treat intensive growth with disdain.

The famous Paul Krugman quote that ‘Productivity isn’t everything, but in the long run, it is almost everything’ is obviously correct, and unarguable. The purpose of this chapter is not to dispute Krugman’s insight – quite the opposite. The point is merely that this is not an ideological battle which needs to be fought in Britain. The British economy is not a Luddite economy which deliberately tries to kill off productivity growth. It is, however, an economy which

systematically restricts the use of some of the key input factors that a prospering economy requires. This is particularly true of energy, infrastructure, finance and buildings, both residential and commercial. We will leave energy to David Turver and infrastructure to Valentin Boboc, while noting that Tyler Goodspeed has already alluded to the role of finance in his contribution. In this chapter, we will look at the rationing of building land.

The thesis of this chapter is that Britain has stopped growing because the British economy is rubbing up against physical capacity constraints. We are trying to squeeze a twenty-first-century economy into the physical built-up environment we have inherited from the previous two centuries, and we refuse to expand that capacity to anything like the degree that is required.

If there is one enterprise in the country which encapsulates the state of the country as a whole, it is Heathrow Airport. In the late twentieth century, Heathrow grew at a phenomenal rate. But then at some point around the mid 2000s, its capacity constraints started to bite, as it became harder and harder to fit in more aircraft movements. Heathrow's growth rate began to slow down, even in absolute terms, and more so relative to other international hub airports. Heathrow illustrates the limits of 'smart growth'. Maybe there is some additional scope for 'smart growth' at Heathrow: maybe Heathrow would benefit from new management techniques, a better trained and more highly skilled workforce, more modern equipment, using AI technology to improve logistics, etc. But at the end of the day, planes have to land somewhere, and there is only so much

activity that an airport – no matter how ‘smart’ – can fit into two runways. The easiest and most effective thing that Heathrow could do is the unsophisticated, unimaginative thing of putting more tarmac on the ground. Heathrow needs ‘stupid growth’. And so does Britain as a whole.

This is not an original thesis. It is a variation of the argument made in ‘Foundations: why Britain has stagnated’ by Southwood et al. (2024), who explain:

[T]he most important economic fact about modern Britain [is] that it is difficult to build almost anything, anywhere. This prevents investment, increases energy costs, and makes it harder for productive economic clusters to expand. This, in turn, lowers our productivity, incomes, and tax revenues. [...]

Britain’s economy has stagnated for a fundamentally simple reason: because it has banned the investment in housing, transport and energy that it most vitally needs. Britain has denied its economy the foundations it needs to grow on.

Southwood et al. describe Britain as a place which gets a lot of the difficult things right, and then ruins it all by getting the simple, basic things wrong.

Although coming from a very different place, the Labour Growth Group reaches fundamentally similar conclusions (McVitie 2026):

The state [...] rations the factors of production and ordinary life. Energy, land, housing, infrastructure, skills,

care and capital become scarce or expensive in ways that more capable states have avoided. Rationing creates positional rents. Those who own scarce assets, hold regulatory licences, occupy protected market positions, control professional processes or dominate essential markets profit from the scarcity. Costs rise for households and productive firms.

They do indeed.

Residential housing

Pointing out that Britain has a housing shortage feels like a statement of the trivially obvious. For over twenty years, successive governments have been commissioning expert reviews and publishing White Papers saying precisely that (if only to shelve them and do nothing about it – see Niemietz (2024: 31–34)). IEA authors have been making that point since at least the late 1980s (Evans 2025 [1988]). It was an original insight then. It is not anymore. It has since become the conventional wisdom.

But conventional wisdoms can be right, and this one is. Britain really does have one of the lowest levels of housing supply in the developed world, and probably *the* lowest if we choose realistic benchmarks.

For a start, Britain has fewer housing units per 1,000 people than most other developed economies, and we are talking about large magnitudes. Matching the EU average on this measure would require the construction of an additional 3.4 million homes in England alone. Matching the

housing stock of German-speaking Europe would require the construction of closer to 5 million, and matching the housing stock of France would require the construction of not many fewer than 9 million additional homes in England (based on OECD 2022).

But this measure does not capture the full extent of the shortfall. If we split a large family home into four self-contained studio flats, we have quadrupled the number of housing units, but we have not created any additional housing space. Ideally, we would adjust those figures for differences in floor space. On this, data are patchier, but from what we know, British homes are, on average, significantly smaller than their counterparts elsewhere in the developed world (Niemietz 2024: 12–14). Thus, if we expressed ‘housing supply’ as the amount of residential floorspace per capita, Britain would almost certainly be at, or very close to, the bottom end of any realistic comparison group.

It has not always been this way. In the nineteenth and early twentieth centuries, Britain was unusually highly urbanised, even when compared to other countries that we think of as major industrial powers of the period. From the mid nineteenth to the mid twentieth century, the British housing stock used to grow at rates between 1 and 2 per cent per annum almost every year, net of demolitions (Watling 2023), outstripping population growth. At the peak, which was the inter-war building boom, the British housing stock grew by almost 3 per cent per annum.

In the immediate post-war period, Britain still had a higher level of housing supply than most of Europe (Watling and Breach 2023: 19–21). From then on, however,

Britain fell steadily behind. House-building rates dropped continuously until they stabilised at around half a percentage point in the 1980s, roughly where they still are today.

The obvious consequences followed. The most common measure of housing affordability is the ratio of house prices to annual incomes (Niemietz 2024: 14). There are different versions of this measure, which produce slightly different figures, but they all point in the same direction.

From the mid nineteenth to the mid twentieth century, Britain experienced about a hundred years of slowly but steadily improving housing affordability. In the inter-war period, an average-income earner could buy an average-priced house with not much more than four years' worth of income. This downward trend was, however, not resumed in the post-war decades. From the 1950s to the 1990s, we see fluctuations, but no systematic trend in either direction. Then between the mid 1990s and the late 2000s, housing affordability drastically deteriorated, taking us back to where we last were in the 1880s.

When we say that Britain has 'a housing shortage', this does not mean that Britain has less housing now than, for example, in the 1970s. In absolute terms, housing supply has roughly kept pace with population growth, and even slightly outpaced it.² However, Britain is now a much

2 Then again, we have also seen an increase in single households, single-parent households, and a tendency for people to move out of their parents' home at a younger age – a trend which abruptly came to a halt in the late 1990s, and has since been partly reversed. Household formation is in part endogenous to the housing stock, since people will squeeze into whatever housing stock there is, even if this is not their preferred living arrangement.

richer country than it was in the 1970s, and we know empirically that as countries grow richer, people demand more housing space. When that extra housing space is not provided, people will bid up the price of whatever housing space is there.

So far, so obvious. We are keeping this quite superficial, because we know that the reader has come across versions of this argument many times before. What might not be so obvious, though, is why a housing shortage should reduce economic growth. If we think of housing as a consumer good, it is not immediately clear that it should. In an economy which rations the supply of apples or pears, people will consume fewer apples or pears than they otherwise would, and pay more per unit. But there is no reason why GDP growth should be any lower as a result. It just means that, at least for consumers who value apples or pears, these GDP figures will no longer translate into higher living standards at the same rate as they did before. Similarly, an economy which rations housing could be an economy which appears rich and productive on conventional measures, but where people live in much more cramped and crowded conditions than these macro figures would imply. (The most famous real-word example of such an economy is probably Hong Kong.)

The difference is that rationing the supply of apples or pears would do no more than reduce the consumption of apples or pears: it has no wider implications for the structure of investment and production. The economy remains otherwise fundamentally the same, just with fewer apples and pears in it. In contrast, an economy with strictly

rationed housing supply is not simply the same economy just with less housing space. Imagine an alternative Britain which had retained the pre-war land use planning policy, and where the housing stock had continued to grow at the pre-war norm. That alternative Britain would not simply be the actual Britain plus more housing space and more modern living comfort per person (although that would, of course, be desirable enough). It would be a Britain with a very different economic geography, and a very different economic structure.

Britain's housing shortage is a nationwide problem, but with huge differences in degree. It is not evenly distributed across the country; it is, on the contrary, systematically worse in the most prosperous and productive parts of it. The Housing Affordability Ratio (HAR) – median house prices divided by median annual full-time gross earnings – for England as a whole is 7.6 (ONS 2026). This is bad enough, because it is far above the historic norm. However, in Oxford, Cambridge, Bath, Brighton and (obviously) London, that ratio exceeds 10. This systematically reduces incentives to move from relatively less productive to relatively more productive parts of the country. It means that as the country's economic geography changes, the housing stock cannot change with it, which will then stifle that very change in economic geography. As Southwood et al. (2024) point out in the aforementioned Foundations essay:

[B]efore the 1940s, British cities grew as their industries did. People moved, in their millions, around the country. People moved to places where wages were higher [...]

Since the introduction of the British planning system in 1947, there has been very little increase in housing supply when better jobs make an area more desirable. Instead of extra homes being built, workers competing for scarce housing are forced to bid up the price of existing homes. This means that many of the income gains go to existing landlords and landowners, and that many people cannot move to better jobs at all. [...]

Since the supply of homes in successful cities is tightly constrained, the growth of our most successful companies and sectors within those cities is constrained as well. [...] It is inconceivable that Britain could have had the Industrial Revolution if it had banned workers from moving to the coalfields of South Wales and Yorkshire and the textile factories of Lancashire. It is not an exaggeration to say that Britain could be forgoing its role in another industrial revolution today [...] by making the corresponding mistake.

One example which the authors single out is Cambridge (Southwood et al. 2024):

Under the liberal system of the nineteenth century, late twentieth century Cambridge's huge success in life sciences would have led to both taller buildings and many new suburbs, connected by new train lines, trams, tubes, and roads. It would likely have a population of at least a million today.

Britain's post-war planning system was not designed to constrain housing supply, let alone to choke off growth in

innovative and productive industries. But in practice, that is what it has done, and what it continues to do. With this in mind, we can now refine the relationship between extensive growth and intensive growth – or ‘smart growth’ and ‘stupid growth’ – alluded to in the introduction, specifically for the British case. Britain does not face a choice between intensive and extensive growth. Rather, in the British case, extensive growth is what would enable intensive growth. We need stupid growth not as an *alternative* to smart growth, but in order to *enable* smart growth. We need to do the simple, unsophisticated thing of putting bricks on top of other bricks, because this is what would enable the modern miracles of AI technology and life sciences to happen on a much bigger scale.

Commercial and business premises

We have thus far used the terms ‘housing shortage’ and ‘housing crisis’ because they are widely used and widely understood. But those are unfortunate terms, because they imply that there is a specific, narrow shortage of residential housing. In reality, what Britain has is a shortage of premises for practically all purposes, across the board. Britain has a shortage of business premises for offices, retail outlets, science laboratories, hospitality venues, GP surgeries, and just about everything else.

Across countries and regions, residential rents and office rents are highly correlated (based on Eurostat (2024) and Savills (2025)). It would be strange if this were otherwise. If a city has a shortage of residential housing, but an excess of office space and therefore high office vacancy

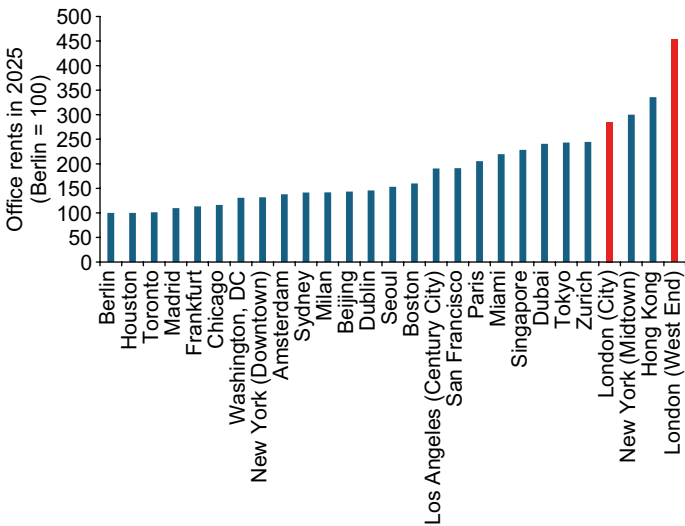
rates, some of those offices would be converted into residential housing (unless something blocks that conversion). So it is not surprising that, by and large, cities where it is expensive for an individual to rent a flat are places where it is also expensive for a business to rent an office. Figure 4 shows office rents in the business districts of capital cities and major economic centres, relative to the level in Berlin (although the choice of benchmark is, of course, not in itself particularly important, and the reader can substitute any other benchmark). We can see that the London markets are at the top end, just as they are for residential rents (Niemietz 2024: 14–15). We have, in fact, not even bothered to reproduce the corresponding graph for residential market rents, because residential and office rents are so closely correlated that this adds little information.

Data for other types of business premises, such as retail, hospitality venues, science laboratories, etc., is patchier, but for the same reasons mentioned above, we can reasonably expect it to be correlated.

A shortage of business premises does not just raise the cost of doing business in the UK (although that is, of course, the most obvious and immediate effect). It does not just mean that physically expanding a growing business is more difficult than it would be in a more relaxed market. It also lowers productivity by forcing business into premises that are not suitable for their business needs. The effects are not trivial. Empirical evidence from the retail sector shows that nudging retailers into less suitable buildings leads to a measurable slowdown in productivity growth (Dumitriu 2026). This effect accumulates over the

years. The effect on other sectors is less well-studied, but there is no reason to believe that retail is a special case, and that productivity in other sectors does not suffer if businesses are forced into smaller or otherwise less suitable premises.

Figure 4 Office rents in 2025, Berlin = 100



Source: Based on Savills (2025).

The basic issue here is simply that economic activity needs to take place somewhere. An economy which rations the space where that can happen will be a less productive and poorer economy. We cannot put an exact number on the size of that effect, but it is safe to say that it exists, that it is not trivial, and that it gets worse the longer the problem persists.

Conclusion

Most economies that experience low growth over prolonged periods suffer from deep-seated institutional problems that are difficult to solve. Economists often say that rich countries are rich because they have ‘good institutions’, but most of those economists will struggle when asked to be more specific, and they will struggle even more when asked how to create those ‘good institutions’. They are right in the abstract, but reforming a country’s fundamental institutions is genuinely difficult, and nobody quite knows how to do it.

What makes Britain’s Great Stagnation so frustrating is that Britain sorted out the most difficult things long ago. Britain has everything it takes to be a fast-growing, productive and prosperous economy. Britain just does not allow that to happen.

On most conventional indicators of economic governance, the performance of Britain’s institutions is somewhere between alright and very good (Niemietz 2026: 43–44). This does not mean that there is nothing left to do in terms of civil service reform, reform of regulatory institutions, etc., it just means that whatever issues Britain has in these areas, they cannot explain the growth malaise we have seen over the past 18 years. Britain’s growth malaise is entirely a product of self-sabotage.

The story of how Britain got to this stage has been told many times (e.g. Niemietz 2024; Southwood et al. 2024; Watling 2023). Essentially, until 1947, Britain had a land use planning system under which ownership of land

included the right to build on that land unless specifically prohibited, and subject to constraints to do with building safety and public health. It was a system which, by and large, respected individual property rights, if with a recognition of externalities. The new system brought in in 1947 reversed the burden of proof. From now on, property owners had to convince the authorities that they should be allowed to build on their own land.

This was not, in itself, an unusual step: it is true in most of the developed world that if people want to build something, they need a permit for it. Where Britain deviated from the international norm, though, is in the discretionary nature of that permit system. Obtaining a building permit is very different from getting a driving permit or an occupational licence. Under these latter systems, the applicant has a set checklist of criteria they need to fulfil, and once they can demonstrate that they fulfil them, they are automatically entitled to their permit. It cannot be refused on a whim. A planning permit very much can be. Over time, anti-development obstructionists presenting themselves as the voice of ‘the community’ learned how to game the system in their favour (Watling 2023).

Post-war Britain also introduced or expanded broad-brush development bans, declaring large tracts of land off-limits for building of any kind. Again, this is not in itself unusual: all developed countries have protected conservation areas. But where Britain deviates from most of its peers is in the use of greenbelts, a highly unusual type of land designation. Conservation areas are usually selected on environmental or aesthetic/recreational

grounds: they cover land that is either rich in biodiversity or simply beautiful to look at and pleasant to spend time in. Greenbelt land does not have to exhibit any of these features. It is simply selected on the basis of location. They are large buffers around towns and cities which stop them from expanding, nothing more, nothing less. Greenbelts have grown in size over time, now covering close to 13 per cent of the land of England, most of it prime real estate (Niemietz 2024: 29).

In addition, Britain became a much more centralised country over time, especially in fiscal terms. This happened elsewhere too, but Britain went further than most, certainly for a country of its size. (In very small countries, the national government operates on the scale of a regional or provincial government elsewhere.) More than 90 per cent of tax revenue is national, and local governments mostly depend on central government grants, with very limited tax-raising powers of their own. In more decentralised settings, local authorities compete for taxpayers, and try to attract them. One easy way to do this is, of course, to permit development, both residential and commercial. Local authorities in Britain have no such incentives, because almost all tax revenue is pooled: it does not stay in the locality where the taxpayer lives.

These are all longstanding issues which we can already find in reports on the subject from 10, 20 or 30 years ago. In recent years, governments have managed to make a bad situation even worse by piling additional environmental and safety regulations on building, with even their own cost-benefit analyses showing that these measures

are excessively expensive relative to the miniscule benefits they produce.

Each of these measures, in isolation, would have reduced housing supply: we know, empirically, that this is what planning constraints do, even if it is not their intention (Niemietz 2024: 30). Taken together, they have depressed building rates to a fraction of their historic long-term average. They have also ground the economy to a halt in the process. Again – all entirely self-inflicted.

The one upside of a clearly self-inflicted economic problem is that the solution is obvious. The solution to a self-inflicted problem is to stop inflicting it on oneself, in the same way that the way to stop the pain caused by punching oneself in the face is to stop punching oneself in the face.

In the British context, stagnation is a choice. It is a choice to give NIMBY obstructionists de facto veto powers. It is a choice to ration land in a country which is 90 per cent undeveloped. It is a choice to pile costs on economically beneficial activities for little gain. Choice can be unmade any time. Britain can start growing again as soon as it chooses to.

References

- Dumitriu, S. (2026) How to cut the cost of the weekly shop. Planning policy makes your groceries more expensive. Notes on Growth (<https://www.samdumitriu.com/p/how-to-cut-the-cost-of-the-weekly>).
- Eurostat (2024) 2023 Current market rents (<https://ec.europa.eu/eurostat/documents/6939681/7243182/Ares%282023%>

- 298073026+Booklet_2024_rents_2023_e_Final.pdf/e9d50b9f-911c-ca5f-7161-ladc03cb7598?t=1701095269033).
- Evans, A. (2025 [1988]) *No Room! No Room! The Cost of the British Town and Country Planning System* (with a new introduction and commentary by Kristian Niemietz). Occasional Paper 79 (new edn). London: Institute of Economic Affairs.
- McVitie, M. (2026) An honest day: a new economic settlement for Britain. Labour Growth Group (<https://www.labourgrowth.co.uk/>).
- Niemietz, K. (2024) *Home Win: What If Britain Solved Its Housing Crisis?* Discussion Paper 123. London: Institute of Economic Affairs.
- Niemietz, K. (2026) Building a better Britain. In *Wider Ownership. A Way Forward for the UK* (ed. J. Cowpe). Independently published.
- OECD (2022) Housing stock and construction. Housing market context indicators (<https://www.oecd.org/content/dam/oecd/en/data/datasets/affordable-housing-database/hm1-1-housing-stock-and-construction.pdf>).
- ONS (2026) Housing affordability ratio in England and Wales (<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2025>).
- Savills (2025) Global occupier markets: prime office costs – Q3 2025 (https://www.savills.co.uk/research_articles/229130/382390-0).
- Southwood, B., Hughes, S. and Bowman, S. (2024) Foundations: why Britain has stagnated (<https://ukfoundations.co/>).
- UKRI (2025) Budget allocations for UK Research and Innovation. Corporate report. UK Research and Innovation.

Watling, S. (2023) Why Britain doesn't build. *Works in Progress* 11 (<https://worksinprogress.co/issue/why-britain-doesnt-build/>).

Watling, S. and Breach, A. (2023) *The Housebuilding Crisis: The UK's 4 Million Missing Homes*. London: Centre for Cities (<https://www.centreforcities.org/publication/the-housebuilding-crisis/>).

4 INFRASTRUCTURE

Valentin Boboc

Introduction

Infrastructure is one of the most persistent ‘puzzles’ at the heart of British economic policy. Successive governments have acknowledged, with increasing urgency, that the country’s stock of economic infrastructure is inadequate. The National Infrastructure Commission concluded in its Second National Infrastructure Assessment that the UK has ‘significant deficiencies’, particularly in transport systems serving regional English cities (National Infrastructure Commission 2023). The World Economic Forum ranked the UK eleventh in overall infrastructure quality in 2019, behind France, Germany, the Netherlands and Japan (World Economic Forum 2019). The government’s own ten-year infrastructure strategy, published in June 2025, projects a need to raise annual infrastructure spending from approximately £55bn to £70–80bn per year (HM Treasury and NISTA 2025).

And yet the money spent on infrastructure in Britain consistently produces far less infrastructure than the equivalent sum would in comparable economies. HS2 Phase 1, a commonly discussed example but by no means

the only one, has cost roughly £470m per route-kilometre, making it the most expensive high-speed railway in any international database.¹ The European average for comparable projects is roughly £25–32m per kilometre (European Court of Auditors 2018). Even the heavily tunnelled Shinkansen extensions through the Japanese Alps, bored through some of the most seismically active terrain on earth, cost between £50m and £100m per kilometre.²

This chapter is about the economic consequences of the gap between spending and outcomes. Poor infrastructure outcomes create a supply-side constraint on growth that compounds over time, shapes the country's economic geography and forecloses options that, once lost, are very difficult to recover.

Fact 1: Britain pays more and waits longer

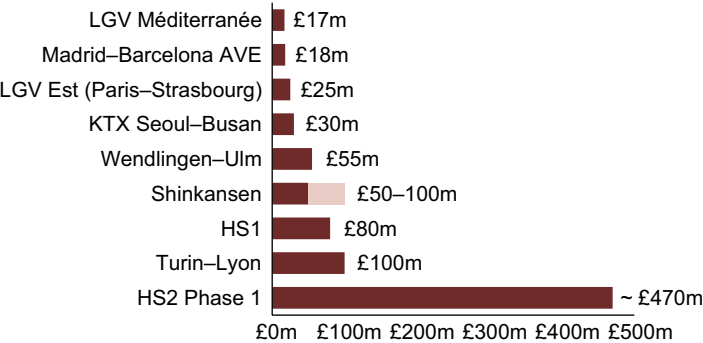
The most arresting fact in the international infrastructure literature is not that Britain builds expensively relative to comparable Western and Northern European countries, but that it builds expensively relative to Japan. Japan's labour costs are broadly comparable to the UK's, its land is scarcer, its terrain is more challenging, and its seismic requirements impose engineering standards with no equivalent in the British Isles. The cost differential, which can reach a factor of six or more for comparable project

1 <https://transitcosts.com>

2 https://www.mlit.go.jp/kokusai/itf/policy_001.html

types, therefore cannot be attributed to factor costs or geographic circumstances. It is an institutional and regulatory phenomenon.

Figure 5 Britain builds high-speed rail at several times the cost of its peers (real cost per km of track)



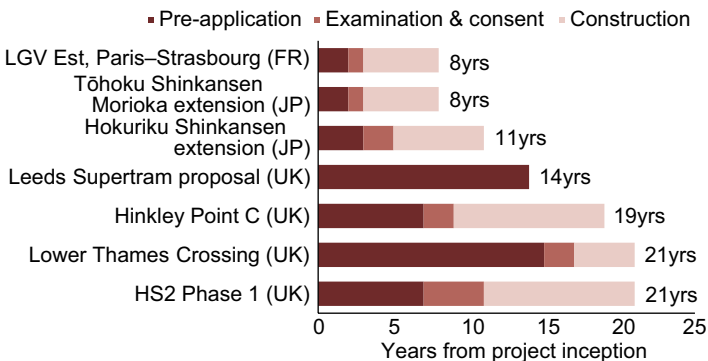
Source: Transit Costs Project.

A typical UK Nationally Significant Infrastructure Project (NSIP) takes between nine and seventeen years from inception to opening. Japan’s equivalent approval process, which handles projects of similar or greater complexity, takes three to six years.³ The Lower Thames Crossing, a road tunnel connecting Kent and Essex, was first identified as a priority in the early 2000s. Its planning application ran to 359,866 pages across more than 2,300 documents, the longest submitted under the Planning Act 2008. It cost

3 The three-to-six-year figure covers the period from formal route designation under the Nationwide Shinkansen Railway Development Law through to construction approval.

approximately £300m to prepare,⁴ a sum roughly equal to more than twice the total construction cost of Norway's Laerdal Tunnel, which at 24.5 km is the longest road tunnel in the world.⁵ The Lower Thames Crossing received development consent in March 2025, approximately sixteen years after its formal identification as a priority.⁶

Figure 6 UK major projects spend most of their life in the planning system



Sources: Britain Remade; NIC (2024); HS2 Ltd; SNCF Réseau; Japan MLIT. Dates reflect formal project milestones, rounded to whole years. Leeds Supertram is shown as a cancellation after 14 years of pre-application and design work.

4 https://www.britainremade.co.uk/revealed_how_the_lower_thames_crossing_is_breaking_records_for_all_the_wrong_reasons

5 Author's own estimate. The Laerdal Tunnel cost approximately USD100m on completion in 2000. With cumulative US inflation of roughly 89 per cent between 2000 and 2026, that is about USD190m at 2026 prices. If the entire £300m were spent in 2026, it would be roughly USD401m at the exchange rate on 12 March 2026, so the ratio is in fact higher.

6 <https://www.gov.uk/government/news/lower-thames-crossing-development-consent-decision-announced>

Such delays are the cumulative result of process drift. Average pre-application timelines for major projects almost doubled between 2013 and 2021, from 14 months to 27 months, and the overall time required to secure a Development Consent Order rose by around 65 per cent over the same period (Ministry of Housing, Communities and Local Government 2025).

Of the 27 major projects that received or were expecting a decision in 2025, around half were held beyond the statutory three-month deadline for ministerial sign-off, adding roughly four years of cumulative delay across the cohort (Centre for Policy Studies 2025). When every project is a bespoke development–consent battle lasting a decade or longer, it is rational for contractors to maintain flexible, general-purpose supply chains rather than committing to the manufacturing capacity that would deliver economies of scale.

Fact 2: The UK has an urban connectivity deficit

If the cost and time premia were purely fiscal problems, their growth implications would be limited to a misallocation of public capital. Another important channel is the constraint placed on urban agglomeration. One of the fundamental insights of modern urban economics is that workers, firms and ideas are more productive when they can interact at high density.

Physical infrastructure extends the effective size of labour markets by reducing travel times. A worker willing to commute forty minutes by rail can reach a materially

larger pool of employers than one dependent on the same journey by congested road or a slow train. Infrastructure, therefore, translates spatial proximity into economic proximity, and the productivity literature consistently estimates that effective urban agglomeration is associated with returns of between 2 and 5 per cent per doubling of labour-market size (Melo et al. 2009).

It is intra-city access that matters most for agglomeration, and here UK cities are systematically under-provided relative to their population and economic weight. Every French city with a population above 150,000 has a tram, light-rail or metro system, while around 30 British towns and cities of comparable size have none.⁷

The contrast is visible at the level of daily access. In Marseille, around 87 per cent of residents can reach the city centre by public transport within 30 minutes. In Leeds, the figure is closer to 38 per cent.⁸

The Trafford Park Metrolink extension illustrates what even a modest improvement in urban connectivity can do. The line, which opened in March 2020 for £350m for 5.5 km, connected the Trafford Park industrial and retail district to central Manchester and the wider Metrolink network.

In the years after it opened, the number of businesses in the area rose by about 9 per cent, the average value of planning applications rose by roughly three-quarters,

7 <https://benhopkinson.substack.com/p/how-centralisation-makes-in-frastructure>

8 Centre for Cities analysis of the share of residents able to reach the city centre by public transport within 30 minutes.

residential prices rose by about 32 per cent, and some 700,000 car journeys a year were taken off the roads.⁹ The line was delivered approximately seven months ahead of schedule, largely because it drew on the accumulated expertise from a decade of continuous Metrolink expansion.

The same integrated delivery team that had built the East Didsbury, Airport and Second City Crossing extensions deployed its established contractors and supply chain on the Trafford Park corridor, using consistent engineering standards and tested procurement arrangements.¹⁰ The programme's continuity was a proximate cause of on-time delivery.

Even so, at about £64m per kilometre, the line cost more than double the unit price of comparable French trams. Hence, continuity addresses the time premium more readily than the cost premium. Where British infrastructure delivery resembles a continuous programme, it builds to schedule in the manner of its European peers.

Fact 3: The costs of inaction compound over time

Infrastructure decisions are typically framed in terms of their monetary costs. They are less often framed in terms of opportunity costs, that is, the costs of not building.

9 Transport for Greater Manchester, Trafford Park Line four-years-on assessment, with figures reported via Marketing Stockport (November 2025). The total project cost of £350m and the March 2020 opening are confirmed in TfGM materials.

10 <https://bethell.co.uk/case-studies/manchester-metrolink-light-rail-phase-3-trafford-park-extension/>

When the option to build a major project is declined or the project is cancelled, the economy does not simply wait at a fixed point until the decision is reversed. It adapts to the absence of the infrastructure: firms relocate, workers adjust their housing choices, land-use patterns shift and supply chains reorganise. These adaptations embed a sub-optimal equilibrium more deeply.

Take the example of HS2. The cancellation of the Birmingham to Manchester leg in October 2023 forfeited the direct benefits of faster journeys and greater rail capacity between the West Midlands and the North West.¹¹ It locked in the existing pattern of underdeveloped links between Birmingham, Manchester and the cities in between for at least a generation. The eastern leg towards the East Midlands and Leeds had already been abandoned two years earlier. The forgone annual benefit to Greater Manchester alone had been estimated at between £0.6bn and £1.3bn (KPMG 2013).

The compounding works in both directions. Just as the absence of infrastructure accumulates lost output over decades, its presence accumulates gains. Greater Tokyo's private rail network, built incrementally over a century, has produced a labour market of 35 million people, with average commuting times shorter than those in most smaller UK metropolitan areas. The economic geography of that city is a product of choices made in 1920, 1950 and 1980. The same logic applies, in reverse, to Britain. The

11 HM Government announcement, 4 October 2023. The eastern leg towards the East Midlands and Leeds had been removed earlier, in the Integrated Rail Plan of November 2021.

choices it declines to make now will shape the economic geography of its cities in 2070.

Fact 4: The construction sector is not innovating

In most manufacturing and service industries, productivity rises as firms accumulate knowledge, as competition drives inefficient producers out of the market and as workers and managers develop sector-specific expertise. In UK infrastructure construction, this mechanism is largely absent. UK construction productivity growth averaged -0.6 per cent per year between 1997 and 2019, compared with whole-economy growth of 2.8 per cent and manufacturing growth of 3.9 per cent (Institution of Civil Engineers 2022).

The National Infrastructure Commission's review of cost drivers found substantial evidence that long-term, programmatic procurement pipelines reduce unit costs materially (National Infrastructure Commission 2024). Major transport infrastructure, by contrast, is procured episodically, which destroys the learning gains that continuous programmes accumulate.

Sweden's railways show what widening the field of bidders can achieve. Until 2002, rail infrastructure maintenance was produced in-house by the state infrastructure manager, Banverket. From that year, the work was opened to competitive tender, one contract area at a time, with private firms bidding against the incumbent provider.

Examining 39 contract areas between 1999 and 2011, Odolinski and Smith (2016) found that the introduction of

competition reduced maintenance costs by around 11 per cent, and that the savings came with no loss of quality. The gain came from the single act of replacing a closed-in-house monopoly with a contestable market in which more firms could compete for the work. What is striking is how little competition was needed to produce the result, which suggests that a market that opened even wider, including to capable contractors from abroad, could bring costs down further.

As one of the world's most trade-intensive economies, with trade in goods and services accounting for around 63 per cent of GDP in 2024 (World Bank 2024), Britain is well placed to benefit from opening its procurement market more widely.

The academic evidence shows that even a small increase in the number of genuine bidders, from one or two to three or four, is typically associated with a 10–20 per cent fall in contract prices (Adam et al. 2021). The domestic field is also strikingly subscale: Britain's largest contractor, Balfour Beatty, turns over a fraction of the revenue of European leaders such as Vinci.¹² Foreign contractors do already participate in large UK projects, but typically as members of a consortium led by a domestic partner rather than as sustained, independent competitors.

The structure of UK procurement, episodic and fragmented, offers them little reason to invest in a durable British presence. A deliberate policy of open, repeated

12 Balfour Beatty's 2024 revenue was approximately £10bn including joint ventures; Vinci's was approximately €72bn. Figures taken from the companies' 2024 annual results.

and well-structured procurement for major infrastructure would expose domestic contractors to the techniques, equipment and management practices that have driven down costs elsewhere. Firms that build more cheaply and more quickly would win contracts, and the methods that enable them to do so could diffuse through the sector.

Fact 5: Even projects which survive the planning system fail

Between 1991 and 2016, Leeds spent over £70m on building a mass transit system. In return, nothing was built. Not a single metre of track, not one station, not one journey. The money went on planning applications, public inquiries and land acquisition for two successive schemes, both of which were cancelled by the government after costs spiralled beyond their original estimates.

Leeds is the largest city in Western Europe by population without a mass transit system. It has been trying to build one for over thirty years. Its greatest obstacle was that even projects which clear every planning hurdle can still be destroyed by a combination of cost escalation and retrospective regulatory challenge. Table 1 shows the timeline of proposals to expand public transport in Leeds and the wider West Yorkshire area.

The Supertram received parliamentary approval in 1993.¹³ The Treasury did not commit funding until 2001,

13 Leeds Supertram Act 1993.

however, in part because it would bear the cost of any overrun, and reluctance to underwrite that risk delayed the project for years before any track was laid. Then, estimated costs doubled, support was withdrawn in 2004, and the government pulled the plug in 2005.¹⁴

Table 1 Leeds mass transit proposals, 1991 to present

<i>Project</i>	<i>System</i>	<i>Initial estimate</i>	<i>Final/latest estimate</i>	<i>Outcome</i>
Supertram (1991–2005)	Light rail, 28 km, 50 stations	£500m (2001)	£1bn (2004)	Cancelled. About £40m spent.
New Generation Transport (2007–2016)	Trolleybus, 14.8 km	£250m (2012)	£250m	Cancelled after 72-day inquiry.
West Yorkshire Mass Transit (2021–)	Tram, Leeds to Bradford	£2bn (2022)	£2.5bn (2024)	In development. First services expected late 2030s.

This is a pattern familiar across British infrastructure projects. Nobody involved faces a hard budget constraint. Costs drift upward through the procurement process because the public balance sheet absorbs all risk. No sponsor is penalised for underestimating. No contractor loses money when specifications expand. No consultee pays a price when its requirements add months or millions to the programme. Costs simply keep rising until they eventually cross a threshold, and the project is cancelled.

¹⁴ <https://www.constructionnews.co.uk/sections/news/end-of-the-line-for-leeds-supertram-03-11-2005/>

The replacement scheme, a trolleybus network branded New Generation Transport, received approval from the Secretary of State in July 2012.¹⁵ It then went through a 72-day public inquiry.

The inspector rejected the entire scheme on grounds that were both extensive and, from the promoter's perspective, retrospective.¹⁶ He concluded that modern hybrid buses could deliver most of the benefits of the trolleybus at lower cost, that shared running with general traffic would make journey times unreliable, and that the overhead wiring required by trolleybus propulsion would impose unacceptable visual and environmental costs. Some of these are procedural findings; others are substantive judgements about the economic merits of the scheme that do not appear to be backed by empirical evidence. What is least clear is why these conclusions were reached only after four years of development work and multiple prior government approvals.

This reflects another structural problem. No approval in the British system is ever truly final. Statutory consultees, planning inspectors and judicial review can reopen questions at almost any stage, on almost any grounds, with no time limit and limited cost consequences for the challenger.

Of the 34 legal challenges completed against Nationally Significant Infrastructure Projects since 2010, 30 sought

15 Department for Transport approval of the Holt Park to Stourton route, 5 July 2012.

16 https://assets.publishing.service.gov.uk/media/5a7f4649ed915d74e622975d/leeds_trolley-vehicle-planning_permission_letter.pdf

to overturn a grant of consent, yet only four succeeded (Banner 2024). The success rate is therefore low, but the mere prospect of challenge shapes behaviour long before any claim is filed. Banner found that the risk of judicial review leads promoters to commission ever more exhaustive environmental assessments, adding months and millions to a programme as a defence against grounds that may never be argued. National Highways has estimated the cost impact of a single legal challenge at between £66m and £121m per scheme.

Put these problems together, and you get the Leeds cycle. Costs inflate because nobody faces a hard financial limit. The project is then subjected to a fresh assessment at which those inflated costs are judged to represent poor value for money, or, worse, the project is deemed to fail one of the arbitrary regulatory tests imposed by a third party. The project is cancelled. A new scheme is proposed. The cycle restarts.

The third attempt is now underway. The current tram scheme is estimated to cost £2.5bn, with £2.1bn in government funding committed in 2025. An independent review has already raised governance concerns and pushed back the timeline, with the first services now expected in the late 2030s. If that holds, Leeds will have spent at least 45 years from the first proposal to the first tram.

Over the same period, from 2000 to the present, more than 20 French cities have built new tram systems. Besançon, a city of 115,000, comparable in size to Blackburn and rather smaller than Leeds, built an entire 14.5 km,

31-station tramway for €254m, approximately €17.5m per kilometre.¹⁷ The project was delivered eight months ahead of schedule, at roughly half the unit cost of other French tram projects of the same period.

The savings came from disciplined specification, competitive procurement of rolling stock and, above all, an explicit decision to build what the city could afford rather than the engineering ideal. France as a whole increased its tram network from 125 km in the late 1990s to more than 620 km by 2012, and further still since,¹⁸ a more than fourfold expansion achieved in less time than Leeds has spent producing no tramway at all.

What is to be done?

The stylised facts above share a common thread. The UK system produces poor outcomes because its institutional framework fails to align incentives with delivery. The proposals below, drawn from international experience, could directly address these core shortfalls.

Devolving power and money

Britain is among the most fiscally centralised countries in the OECD. Only about 5 per cent of tax revenue is raised

17 <https://www.railjournal.com/opinion/low-cost-light-rail-what-can-we-learn-from-besanon/>

18 <https://www.thetransportpolitic.com/2012/06/24/commitment-to-tram-ways-makes-france-a-world-model-for-new-urban-rail/>

locally, and roughly a fifth of public spending is decided subnationally.¹⁹

The French cities that built tramways and the Spanish cities that built metros did so with revenue-raising and borrowing powers held close to the project. A mayor who has pledged to build a line, who holds the powers to fund it and whose re-election turns on whether it opens, faces an incentive structure that no central department can replicate. Devolving both approval and fundraising powers to combined-authority mayors could put the political cost of delay and the political reward of delivery in the same hands (Britain Remade and Create Streets 2024; Spencer et al. 2025). Where a mayor must raise part of the money locally, the pressure to control costs becomes direct rather than abstract.

Reducing bureaucracy

The most consistent finding in the comparative infrastructure literature is that speed and cost depend less on engineering difficulty than on regulatory predictability. A developer who knows a planning decision will be made within a defined timetable, on defined criteria, without relitigation at every subsequent stage, can make faster investment decisions. A developer facing open-ended

19 Around 5 per cent of tax revenue in the UK is raised locally, and roughly a fifth of public spending is decided subnationally. See, for example, analysis from the OECD (<https://www.oecd.org/en/data/dashboards/oecd-dashboard-on-subnational-government-structure-and-finance/subnational-government-tax-revenue.html>).

processes, shifting requirements from consultees and unlimited judicial review cannot.

The problem is compounded by what Gary Miller calls a horizontal managerial dilemma: a horizontal array of regulatory bodies, each with statutory powers to impose requirements on a promoter, with no vertical authority capable of resolving conflicts among them (Miller 1992). The Environment Agency, Natural England, Historic England, National Highways and local planning authorities can all require additional surveys, modifications or mitigations. None bears any financial consequence if its requirements add months to the programme or millions to the cost. The predictable equilibrium is one in which every consultee imposes the maximum requirements it can.

A better approach would replace bureaucratic discretion with clear, objective rules that enable development by right. By setting a transparent checklist of requirements, the state could remove the heavy burden of uncertainty and the need for protracted negotiation. When developers can certify compliance through private auditors rather than waiting on state agencies, the planning process shifts from a system of government-granted permissions to one based on predictable property rights, lowering the overhead for new infrastructure.

To reduce the costs imposed by litigation, the grounds for judicial review could be narrowed so that the legal system is harder to use as a tool of economic obstruction. Requiring challengers to demonstrate direct harm or post a financial bond would help internalise the costs of

delay among those seeking to halt a project. One reason challenges are so frequent is that the Aarhus Convention caps the costs an unsuccessful claimant may be required to pay at roughly £5,000 to £10,000, thereby removing much of the financial deterrent to litigation. Some argue that the UK could revisit this, though the Banner review concluded that there is no case for amending the cost-cap rules while the country remains party to the Aarhus Convention (Banner 2024). A more modest reform would give every stakeholder a defined window in which to be heard, after which the matter is legally closed, and investment can proceed.

Liberalising procurement

The UK civil engineering market is marked by high fragmentation, weak links between design and construction, and a procurement culture that penalises innovation. The construction sector is among the least productive in the UK economy and in the OECD. Foreign contractors are not absent, but they tend to enter as members of a consortium alongside at least one domestic firm rather than as sustained head-to-head competitors, and the episodic structure of UK procurement gives them little reason to build a lasting presence.

Infrastructure delivery could be improved by replacing prescriptive state designs with output-based specifications and open procurement. By focusing on what a project must achieve rather than dictating every technical detail, the government would remove the burden

of over-specification and allow competing firms to design more efficient, lower-cost solutions. Opening these contracts to international competition on a repeated, well-structured basis would further sharpen the domestic supply chain, so that the best techniques and management practices are adopted through competitive pressure rather than bureaucratic dictate.

Liberalising investment

Perhaps the deepest structural problem with UK infrastructure finance is that the state monopolises both risk and delivery. When the public balance sheet bears all risk, the parties making investment decisions bear no financial consequence if those decisions are wrong. The Treasury attempts to impose discipline through Green Book appraisals, but no appraisal methodology can substitute for direct financial exposure. When decision-making authority is separated from financial risk, systematic cost expansion is a predictable outcome.

The remedy is to allow a wider range of market players to initiate and fund infrastructure as a core feature of its financing and delivery. This would organise proposals around service demand and create hard budget constraints under which promoters gain if costs are controlled and projects succeed, and lose if they are not.

Two concrete measures would begin to shift the model. The first is to open infrastructure promotion to private and local authority actors subject to commercial discipline. The Hong Kong MTR Corporation is the canonical

example: a government-owned but commercially run operator that finances its railway from a combination of fare revenue and property development around its stations. More than half of MTR's income comes from property rather than fares, and the company has expanded its network over the past forty years without construction subsidies from the Hong Kong government (McKinsey & Company 2016). Japan's private railways operate on a similar model. Tokyu Corporation owns the railway serving Shibuya, as well as large residential, retail and commercial developments along its line; its fare business is profitable, but much of its overall return comes from the property it develops around its stations (Calimente 2012).

Copenhagen's first metro lines were financed largely through the sale of development rights in the Ørestad district, an approach chosen specifically to build a metro without raising taxes (Knowles 2012).

The second measure is the reform of UK compensation law to let infrastructure promoters capture part of the value their investments create. The Land Compensation Act 1961, as long applied, required promoters to pay compulsorily acquired landowners the prospective market value of their land, including the 'hope value' arising from the very project for which the land was being acquired. This produced the perverse outcome that public investment in a new station inflated the price the public then had to pay for the land around it.

The Housing, Communities and Local Government Committee concluded in 2018 that the Act required reform, and specifically that hope value be removed where

the scheme itself creates it (Housing, Communities and Local Government Committee 2018). Parliament has since taken a first step. Section 190 of the Levelling-up and Regeneration Act 2023 now allows acquiring authorities to disregard hope value in compulsory purchase, but only for schemes delivering affordable housing, education or health facilities.²⁰

The natural next move would be to extend that existing power to transport and other economic infrastructure. Doing so would realign promoters' incentives with the taxpayer's interests and make possible the integrated rail-and-property financing that works so well in Hong Kong, Tokyo and Copenhagen.

Conclusion: choosing growth

The UK spends comparable sums on infrastructure to its peers. It receives measurably less for the money, for a combination of reasons: a discretionary planning system that treats every project as a fresh negotiation; a complex and unaligned regulatory environment that imposes high premiums without accountability; a construction sector insulated from the competition that would force it to adopt more efficient methods; and a rigid financing framework in which the public balance sheet absorbs all risk.

20 Levelling-up and Regeneration Act 2023, section 190, in force in England from 30 April 2024.

Each of these failures reinforces the others. The episodic procurement that follows from long, uncertain planning timelines destroys the economies of scale that would reduce costs. The absence of land-value capture removes the incentive for private promoters to enter the market. The absence of private promoters means that all risk sits with the state, which has no hard budget constraint to enforce. And the absence of a hard budget constraint rewards the behaviours, upward cost drift, endless consultation and retrospective reassessment that produced the crisis in the first place.

Meaningful progress requires the liberalisation of regulatory frameworks that currently impose open-ended costs. That means a shift in the planning system, prioritising development by right rather than by exception, alongside a more competitive procurement process that leverages Britain's trade-intensive economy. Decentralising the initiation and funding of infrastructure would dissolve the state's monopoly on risk and let a diverse range of market actors, such as local authorities and private firms, deliver new projects in line with local demand.

References

- Adam, I., Sanchez, A. H. and Fazekas, M. (2021) Global public procurement open competition index. Working paper, Government Transparency Institute, Budapest (https://www.govtransparency.eu/wp-content/uploads/2021/09/Adam-et-al_Evidence-paper_procurement-competition_210902_formatted_2.pdf).

- Banner, C. (2024) *Independent Review into Legal Challenges against Nationally Significant Infrastructure Projects*. London: HM Government.
- Britain Remade and Create Streets (2024) Back on track: how to build new trams in the UK and get Britain moving. London (<https://www.britainremade.co.uk/backontrack>).
- Calimente, J. (2012) Rail integrated communities in Tokyo. *Journal of Transport and Land Use* 5(1).
- Centre for Policy Studies (2025) *Dithering not Delivering*. London: Centre for Policy Studies.
- European Court of Auditors (2018) A European high-speed rail network: not a reality but an ineffective patchwork. Special Report 19/2018, European Court of Auditors, Luxembourg.
- HM Treasury and National Infrastructure and Service Transformation Authority (NISTA) (2025) *UK Infrastructure: A 10 Year Strategy*. CP 1344. London: HM Treasury.
- Housing, Communities and Local Government Committee (2018) Land value capture. HC 766, Tenth Report of Session 2017–19, House of Commons, London.
- Institution of Civil Engineers (2022) *Common Causes of Low Productivity in Construction*. London: Institution of Civil Engineers.
- Knowles, R. D. (2012) Transit oriented development in Copenhagen, Denmark: from the Finger Plan to Ørestad. *Journal of Transport Geography* 22: 251–61.
- KPMG (2013) *HS2 Regional Economic Impacts*. London: KPMG.
- McKinsey & Company (2016) *The 'Rail plus Property' Model: Hong Kong's Successful Self-financing Formula*. New York: McKinsey & Company.

- Melo, P. C., Graham, D. J. and Noland, R. B. (2009) A meta-analysis of estimates of urban agglomeration economies. *Regional Science and Urban Economics* 39(3): 332–42.
- Miller, G. J. (1992) *Managerial Dilemmas: The Political Economy of Hierarchy*. Cambridge University Press.
- Ministry of Housing, Communities and Local Government (2025) Planning Reform Working Paper: Streamlining Infrastructure Planning. London: Ministry of Housing, Communities and Local Government.
- National Infrastructure Commission (2023) *Second National Infrastructure Assessment*. London: National Infrastructure Commission.
- National Infrastructure Commission (2024) *Cost Drivers of Major Infrastructure Projects in the UK*. London: National Infrastructure Commission.
- Odolinski, K. and Smith, A. S. J. (2016) Assessing the cost impact of competitive tendering in rail infrastructure maintenance services: evidence from the Swedish reforms (1999 to 2011). *Journal of Transport Economics and Policy* 50(1): 93–112.
- Spencer, J.P., Hopkinson, B. and Lawrence, D. (2025) Let mayors build: a new deal for transport. London: Centre for British Progress and Labour Together (<https://britishprogress.org/reports/let-mayors-build-a-new-deal-for-transport>).
- World Bank (2024) *Trade (% of GDP): United Kingdom*. Washington, DC: World Bank.
- World Economic Forum (2019) *The Global Competitiveness Report 2019*. Geneva: World Economic Forum.

5 ENERGY

David Turver

One of the big reasons why Britain has stopped growing is energy. This chapter will explain why energy is important; describe the legislative labyrinth that has been created to impose net zero; itemise the resulting eye-watering subsidies for renewables and other ‘clean’ technologies; document the punitive taxes placed on hydrocarbons; set out the resulting high energy prices; and highlight the impact on growth and productivity.

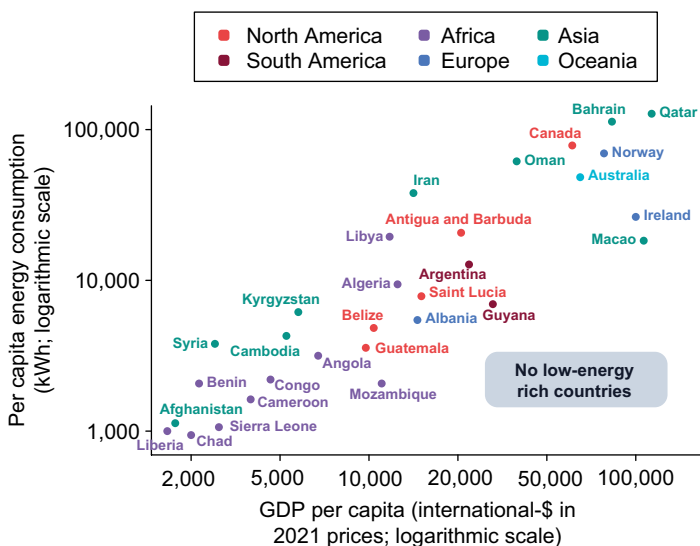
Energy is important

As Figure 7 shows, there are no rich countries with low energy use.

Energy is fundamental to the functioning of a modern economy. Primary industries such as steel-making, aluminium smelting, chemicals, ceramics and petrochemicals are highly energy intensive and require cheap and abundant energy to be competitive. More modern service industries such as AI are also energy intensive and has led the Big Tech companies to scramble for energy to power their giant data centres. For instance, Microsoft

has entered into an agreement with US utility Constellation to reopen the Three Mile Island nuclear power plant.¹ Even relatively humble service industries such as food delivery rely on energy to be effective. The UK cannot hope to be a thriving, growing economy without cheap, reliable and abundant energy.

Figure 7 Energy use per person vs. GDP per capita, 2024



Source: Our World in Data (<https://ourworldindata.org/grapher/energy-use-per-person-vs-gdp-per-capita?time=2024..latest>).

Notes: Energy refers to primary energy, measured in kilowatt-hours per person, using the substitution method. GDP is adjusted for inflation and differences in living costs between countries.

1 Constellation press release (<https://www.constellationenergy.com/newsroom/2024/Constellation-to-Launch-Crane-Clean-Energy-Center-Restoring-Jobs-and-Carbon-Free-Power-to-The-Grid.html>).

Legislating for energy suicide

Unfortunately, a vast array of legislation and regulations to enforce net zero has led to constrained energy supply, high energy prices and a vast regulatory burden that impact industry which is summarised below and included in more detail in the appendix.

The legislative labyrinth began with the Gas Act 1986, which gave powers to the Secretary of State to impose mandatory carbon emissions reduction targets on gas transporters and suppliers. This legislation has since been strengthened through various measures including two Acts in 2000. The Utilities Act introduced the Renewables Obligation (RO) to force electricity suppliers to procure a certain percentage of their electricity from renewable sources. The Finance Act introduced the Climate Change Levy (CCL), which is a tax on energy use by businesses. Effectively, the CCL increases the cost of fossil fuels and hence operating costs for businesses, although some relief is available to businesses through Climate Change Agreements. The Finance Act 2011 amended the CCL legislation and introduced the Carbon Price Support mechanism, which is designed to top up the carbon price paid by electricity generators alongside the EU or UK Emissions Trading Scheme, which is yet another tax on energy.

The Energy Act in 2008 introduced Feed-in Tariffs (FiTs) and in 2013 effectively replaced the RO scheme with Contracts for Difference (CfDs) to drive extra spending on renewables. However, the most significant piece of

legislation in 2008 was the Climate Change Act (CCA), which imposes the legal duty of the Secretary of State to set the carbon target for 2050. Originally, this was an 80 per cent reduction compared to the 1990 baseline but was amended in the last days of the May government by the 2050 Target Amendment Order 2019 to a 100 per cent reduction. The CCA also created the Committee on Climate Change (CCC) that effectively sets carbon budgets every five years to achieve the target.

Environmental legislation forces government to set long-term targets in four priority areas: air quality, biodiversity, water and waste reduction. These targets are designed to align with and support the UK's broader Net Zero Strategy by driving systemic transformation across the economy. This environmental legislation together with extra legislation on the NHS means the public sector is tasked with imposing net zero on the rest of us. Pension legislation forces trustees to identify, assess and manage climate-related risks and opportunities to drive capital towards net-zero aligned investments. Environmental Impact rules force assessment of climate factors including greenhouse gas emissions as well as indirect, secondary, cumulative and long-term effects. This means including so-called Scope 3 emissions such as the emissions from burning the hydrocarbons produced from an oil or gas field.

Additional legislation forces companies and limited liability partnerships to ensure that climate risk is not just an ESG footnote but a central component of their financial reporting within their strategic report.

Tangled web of subsidies

The legislative labyrinth has led to a tangled web of subsidies designed to force expensive and intermittent renewables on to the grid. The Government periodically updates the Subsidy Control Transparency² database, which estimates the cost of all subsidies.

Analysts have calculated³ the total cost of net zero and energy-related subsidies at £585bn over many years. This includes £260bn of renewable energy subsidies across Renewables Obligation Certificates (ROCs), CfDs and FiTs. There is a further £44bn to fund the Renewable Heat Incentive (RHI), which is essentially a scheme to incentivise farmers to burn wood to heat empty sheds.⁴

As well as being expensive, wind and solar renewables are of course intermittent, so there is a need to pay for backup when the sun is not shining and the wind is not blowing. The government has created the Capacity Market to provide this backup and encourage investment in new reliable power stations with a subsidy estimated at £72bn.

Subsidised renewable electricity is too expensive for industry, so there is another set of subsidies to compensate for high energy prices. The British Industry Supercharger Package for energy-intensive industries (EIIs) has been

2 Subsidy Control and Transparency Database (<https://searchforuksubsidies.beis.gov.uk/schemes>).

3 Eigen Values Substack (<https://davidturver.substack.com/p/now-theres-585bn-of-subsidies-galore>).

4 BBC report (<https://www.bbc.co.uk/news/uk-northern-ireland-38301428>).

calculated to cost £51.4bn. This is designed to provide ‘electricity price support’ to around 370 energy-intensive businesses in sectors such as steel, paper and batteries.

There is an additional set of subsidies for Carbon Capture, Usage and Storage (CCUS) that make reliable power generation from gas less efficient and thus more expensive. £30bn has been allocated to the Dispatchable Power Agreement Business Model and another £16.7bn for the two carbon capture business models split equally between the Industrial Carbon Capture Business Model and the Waste Industrial Carbon Capture Business Model. In addition, £13bn has been allocated to the CCUS Transport and Storage Regulatory Investment model.

Another £3bn has been set aside for another thermodynamic war crime: green hydrogen. £2.3bn is forecast to be spent on the Hydrogen Production Business Model (also called HARI), with another £589m on Hydrogen Transport hubs. The balance of the £3bn comprises various funds, accelerators and innovation schemes.

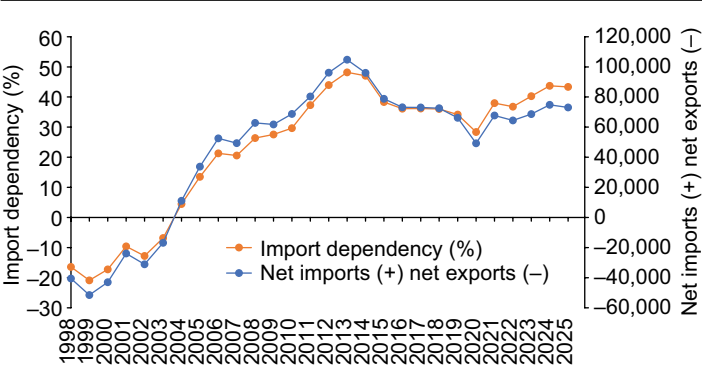
This tangle of subsidies adds costs to the whole economy and further costs are added through further subsidies designed to mitigate the impact of the first set of subsidies.

Hydrocarbon taxes

To meet the carbon budgets set by the CCC, the UK must reduce consumption of hydrocarbons: coal, oil and gas. To that end, punitive taxes have been imposed on both their production and consumption.

Production taxes include the Ring Fence Corporation Tax, the Supplementary Charge, Petroleum Revenue Tax and the Energy Profits Levy. These taxes, combined with the moratorium on fracking and Ed Miliband’s ban on new exploration licences in the North Sea have accelerated the decline in domestic production and made the UK more reliant on imports (see Figure 8).

Figure 8 Energy net imports (mtoe) and import dependency (%)



Source: UK Energy Trends ET1.3 (<https://www.gov.uk/government/statistics/total-energy-section-1-energy-trends>).

Note: Data for 2025 are provisional.

The production decline has led the OBR to forecast that oil and gas tax revenues will fall from £9.9bn in 2022/23 to just £0.3bn in 2030/31.⁵ The impact of declining oil and gas production on the rest of the economy is discussed in more detail below.

5 OBR oil and gas revenues (<https://obr.uk/forecasts-in-depth/tax-by-tax-spend-by-spend/oil-and-gas-revenues/>).

Hydrocarbon consumption taxes are classified as environmental taxes by the ONS, many of which can be characterised as consumer taxes on energy.⁶ These include direct taxes on fossil fuels that raised a total of £42.7bn in 2024, including the following:

- Fuel duty, a tax on petrol and diesel, raised £24.6bn.
- Emissions Trading Scheme, essentially a tax on burning hydrocarbons, raised £4.1bn.
- Climate Change Levy (CCL) raised £1.8bn.

In addition, there are indirect taxes on fossil fuels that raised even more money in 2024:

- Transport taxes such as Motor Vehicle Duty paid by businesses and households raised £8.1bn; until recently this tax did not apply to electric vehicles.
- Air Passenger Duty, a tax on flying, raised £4.2bn.

As can be seen below, the combination of subsidies for renewables and taxes on hydrocarbons conspires to make UK energy prices some of the most expensive in the developed world.

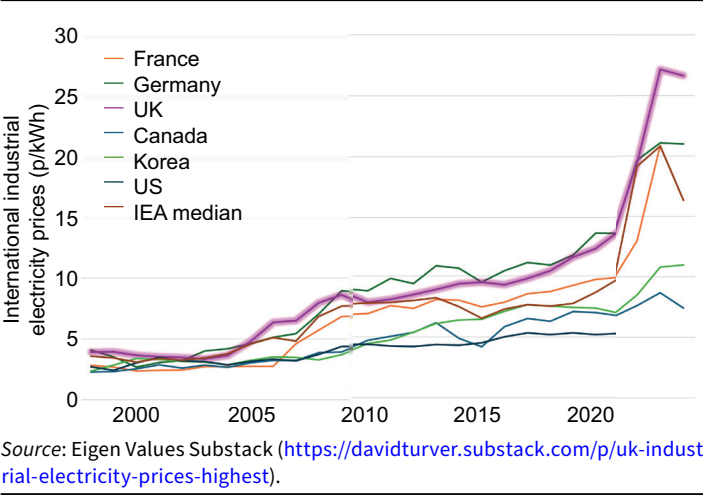
High electricity prices

Government statistics produced by the International Energy Agency (the other IEA) show the UK has the highest

⁶ ONS environmental taxes (<https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccountsenvironmentaltaxes>).

industrial electricity prices in the developed world (see Figure 9).

Figure 9 International industrial electricity prices (p/kWh)



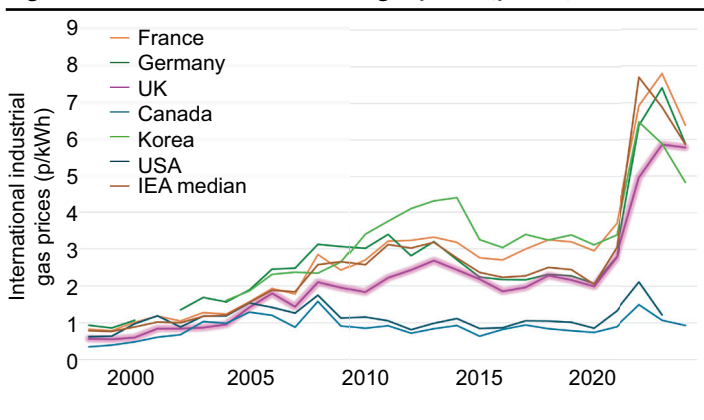
Note that UK industrial electricity prices were around the IEA median from 1998 to 2005, but since 2014 the gap has widened so UK companies paid 63 per cent more than the IEA median in 2024.

It is fashionable to blame the UK’s high electricity costs on the price of gas but Figure 10 shows that although UK gas prices are well above those in Canada and the US, they are marginally below the IEA median.

It is clear that it is not just gas that is driving UK electricity prices. Figure 11 plots the share of electricity supplied by source against gas and electricity prices.

We can see that gas prices remained relatively stable around 2p/kWh from 2008, the year of the Climate Change Act, to 2021 but electricity prices rose more than 50 per cent from under 8p/kWh to over 12p/kWh. During that period, the share of renewables (defined as hydro, bioenergy, wind and solar) went up from just over 5 per cent to over 37 per cent of electricity supplied. From 2022 onwards the energy crisis that began before the war in Ukraine caused gas prices to more than double and electricity prices followed suit.

Figure 10 International industrial gas prices (p/kWh)

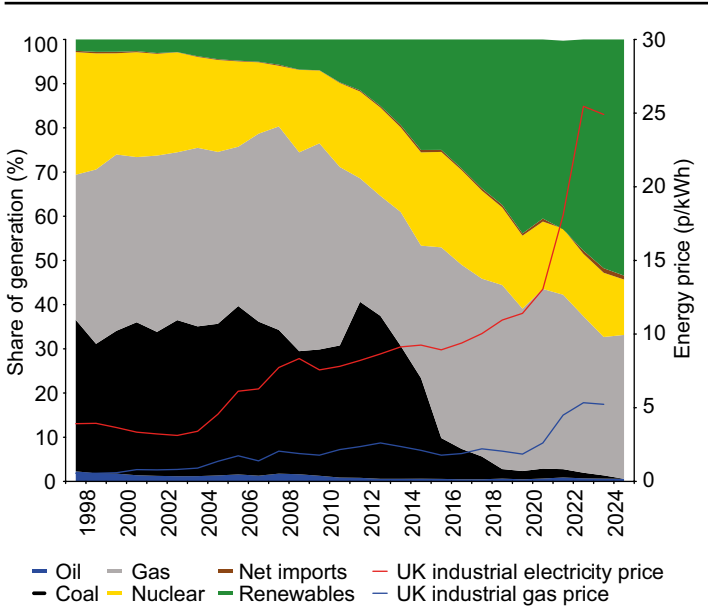


The impact on electricity prices from renewables subsidies, taxes on hydrocarbons and the hidden backup, grid balancing and expansion costs can now be examined in more detail.

The price of gas-fired electricity generated is also inflated by carbon costs. Figure 12 shows the fuel and

carbon costs and the carbon costs as a share of the total, using data from Ember.

Figure 11 Share of electricity supplied by source (TWh), prices (p/kWh)

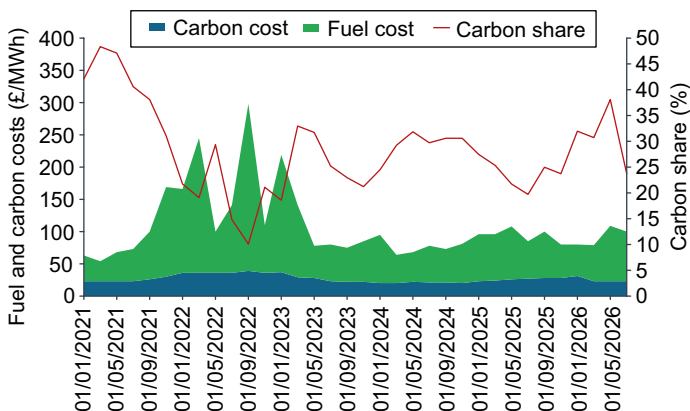


Source: Energy Trends ET5.1 Table 5c (<https://www.gov.uk/government/statistics/electricity-section-5-energy-trends>); international non-domestic energy prices QEP5.3.1 and 5.7.1 (<https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices>).

Carbon costs comprise two elements. The first is the Carbon Price Support (CPS) mechanism, where prices have been held at £18/t since 2018. The CPS is due to be abolished in April 2028. The second part is the carbon

cost arising from the UK Emissions Trading Scheme (ETS) and these costs fluctuate quite a lot.

Figure 12 Fuel and carbon costs (£/MWh) and carbon share (%)



Source: Ember European electricity prices and costs (<https://ember-energy.org/g/data/european-electricity-prices-and-costs/#data-tool>).

The total carbon costs fluctuated in a £35–40/MWh range from the beginning of 2022 to March 2023 before falling steadily to under £20/MWh in February 2024. Carbon costs then fluctuated in the £20–25/MWh range until April 2025 and then began to rise to £31.99/MWh in January 2026 after Prime Minister Starmer’s announcement to align the UK and EU ETS schemes.⁷ Carbon costs as a proportion of total costs reached a record 37.5 per cent in December 2025. More recently, ETS costs have fallen

⁷ UK and EU announce agreement to align ETS (<https://www.endswasteandbioenergy.com/article/1918737/uk-eu-announce-agreement-align-ets>).

because Chancellor Merz called for the scheme to be reviewed.⁸ These carbon costs artificially increase the cost of gas-fired electricity. Ironically, they also increase the cost of renewable electricity subsidised by Renewable Obligation Certificates (ROCs) because these generators receive their subsidies in addition to the market price of electricity, mostly set by gas.

Impact of renewables subsidies

As described above, there is a range of subsidies for renewables that further increase electricity prices. ROC-funded generators are awarded certificates for each unit of electricity generated in addition to the market price they receive for their output. Accordingly, electricity from these generators will always be more expensive than market rates, often set by gas. Even though this scheme is closed to new participants, the OBR shows the RO scheme cost £7.8bn in 2024/25 and the cost is forecast to rise to £8.3bn in 2026/27.⁹ About three quarters of the cost of the RO scheme has been temporarily moved from domestic electricity bills to general taxation from 1 April 2026. The cost of the RO scheme has not been removed from industrial electricity bills, but has been mitigated by various relief schemes.

8 S&P Global Report (<https://www.spglobal.com/energy/en/news-research/latest-news/energy-transition/021226-european-carbon-prices-slide-as-germanys-merz-says-eu-ets-may-need-revamping>).

9 OBR Detailed Forecast Tables Receipts March 2026 (<https://obr.uk/efo/economic-and-fiscal-outlook-march-2026/>).

FiTs are paid mostly to small solar installations. FiT generators are paid a fixed amount to generate electricity plus a smaller amount for the power they export (or are deemed to export) to the grid. Again, this scheme is closed to new entrants; however, analysis of Ofgem's latest report into the FiT scheme¹⁰ shows it cost £1.8bn in 2024/25, or around £229/MWh, which is three times more than the market rate for CfDs in the same period¹¹ of about £76/MWh.

Finally, we have the CfDs scheme used for the now annual renewables auctions. Here, generators receive a fixed amount for the power they generate. They receive the market value, called the reference price, for their power and are then paid a top-up to the strike price of their contract. If market prices are above the strike price, they must pay back the difference. Analysis of data published by the Low Carbon Contract Company shows the CfDs scheme cost a record £2.96bn in 2025/26. The generation-weighted average strike price of electricity funded by CfDs was about £152/MWh in 2025/26 or more than double the £71/MWh average reference price for intermittent renewables. The cost of this scheme is likely to rise considering the high prices offered on 20-year index-linked contracts in the recent Allocation Round 7 (AR7) auction of new capacity.

10 Eigen Values Substack (<https://davidturver.substack.com/p/fit-the-bill-fed-in-tariff-costs-2024-25>).

11 Low Carbon Contract Company (<https://dp.lowcarboncontracts.uk/data-set/actual-cfd-generation-and-avoided-ghg-emissions>).

The cost of all renewables under these schemes is higher than gas-fired electricity and much higher than gas-fired electricity unencumbered by carbon costs. The total cost of these subsidy schemes amounts to £12.5bn per year as shown in Table 2.

Table 2 Cost of subsidy schemes

<i>Item</i>	<i>Latest annual cost (£bn)</i>
Renewables Obligations (ROCs) (2024/25)	7.8
Contracts for Difference (CfDs) (2025/26)	2.9
Feed-in Tariffs (FiTs) (2024/25)	1.8
Total	12.5

According to the latest Energy Trends data,¹² we used 16.24 million tonnes of oil equivalent gas for electricity in 2025. This equates to about 188.9 TWh of gas used to generate 91.6 TWh of electricity or 31.5 per cent of total generation. At an average cost of 83p/therm or £28.33/MWh, this equates to a total fuel cost of £5.4bn or £58.43/MWh. Renewables subsidies alone of £12.5bn cost more than twice as much as the fuel for gas-fired generation. On a per MWh basis, renewables subsidies alone cost about £82/MWh, more than the fuel for gas-fired generation. The full cost of gas-fired generation will include an allowance for recovery of capital expenditure, but still renewables are much more expensive than electricity from gas unencumbered by carbon taxes.

12 Energy Trends ET5.1 (<https://www.gov.uk/government/statistics/electricity-section-5-energy-trends>).

Extra costs of renewables

However, subsidies do not represent the full cost of renewables. First, because wind and solar are intermittent their output can fluctuate significantly so that sometimes they produce less than expected. At other times, wind and solar can produce more than demand or more than the grid can handle and wind farms are paid to curtail their output. The grid needs to be always balanced so gas generators are paid to fire up to compensate. NESO produce Monthly Balancing Services Summary reports and the data for 2024/25 show the cost of this service was £2.7bn.¹³ In addition, according to the OBR, backup through the capacity market cost £1.3bn in 2024/25.¹⁴

If we attribute the balancing and backup costs to intermittent renewables (allowing an inflation adjusted £750m for the cost of balancing before renewables) the full cost of renewables can be seen in Figure 13.

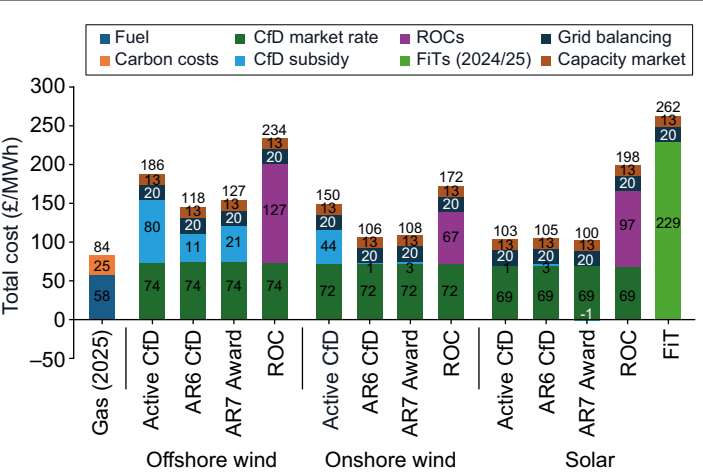
The cost of grid balancing adds about £20 to the cost of intermittent renewables and backup from the capacity market about £13, together adding £33/MWh. The full cost of active CfDs for offshore wind including the strike price plus grid balancing and backup in 2025 was £186/MWh, on-shore wind £150/MWh and solar £103/MWh. All these technologies were much more expensive than gas, even with a carbon tax added. The full cost of new capacity in the recent

13 NESO Balancing Costs (<https://www.neso.energy/industry-information/balancing-costs>).

14 OBR Detailed Forecast Tables Receipts March 2026 (<https://obr.uk/efo/economic-and-fiscal-outlook-march-2026/>).

allocation rounds, AR6 and AR7, is also much higher than gas-fired power. It should be noted that the index-linked contracts in AR7 have been extended to 20 years, so billpayers will be paying more for longer. Renewables subsidised by ROCs and FiTs are even more expensive.

Figure 13 Total cost of electricity by technology and subsidy scheme, 2025 prices (£/MWh)



Source: Eigen Values Substack.

These extra costs are going to get much worse. NESO forecasts balancing costs to rise to £6.4–8.3bn by 2030¹⁵ and the OBR forecasts Capacity Market costs to rise to £4.4bn per year in 2030/31.¹⁶ We can therefore expect

15 Hidden costs of renewables going up (<https://davidturver.substack.com/p/hidden-costs-renewables-going-up>).
16 OBR Detailed Forecast Tables Receipts March 2026 (<https://obr.uk/efo/economic-and-fiscal-outlook-march-2026/>).

these extra costs of renewables to triple to over £12bn by 2030, again more than twice the current cost of gas used to generate electricity.

In addition, because renewables are geographically dispersed, they need extra spending on transmission lines to connect them to the grid. Ofgem has recently approved an initial £8.9bn of spending on the high-voltage electricity network.¹⁷ They claim this is the first step of an £80bn programme to boost the electricity network capacity. They estimate this will add a further £74 to domestic electricity bills. NESO's Clean Power 2030 plan explained this money will be spent on 1,000 km of new onshore and over 4,500 km of offshore cables.¹⁸ Most of this spending is clearly required to connect remote renewables so should be classified as a cost of renewables.

When giving evidence to a recent ESNZ Select Committee, Rachel Fletcher of Octopus Energy explained that electricity bills would be 20 per cent higher in four or five years' time even if wholesale prices, largely set by gas, halve.¹⁹ Chris Norbury, chief executive of E.On UK had a similar message when he said even if wholesale prices go to zero, bills would be where they are today because of the increase in non-commodity costs.²⁰

17 Hidden costs of renewables going up (<https://davidturver.substack.com/p/hidden-costs-renewables-going-up>).

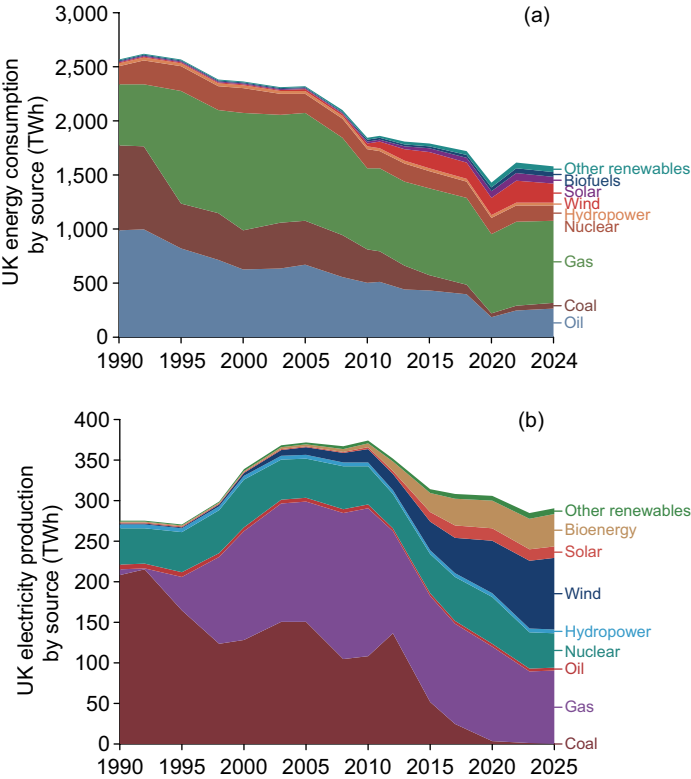
18 NESO Clean Power 2030 (p. 31) (<https://www.neso.energy/document/346651/download>).

19 Green levies to blame for rising energy bills, say suppliers (<https://archive.is/CsOCn>).

20 *The Guardian* (<https://www.theguardian.com/money/2025/oct/15/britain-biggest-energy-supplier-octopus-bills-on-track-to-rise-by-fifth-in-next-four-years>).

The evidence that renewables subsidies, carbon taxes and the additional backup, grid balancing and expansion costs are driving electricity prices higher is overwhelming.

Figure 14 (a) Energy consumption by source, UK;
(b) electricity production by source, UK



Source: Our World in Data: UK Energy Profile (<https://ourworldindata.org/profile/energy/united-kingdom>).

Notes: (a) 'Other renewables' include geothermal, biomass and waste energy.

(b) 'Other renewables' include geothermal, wave, and tidal.

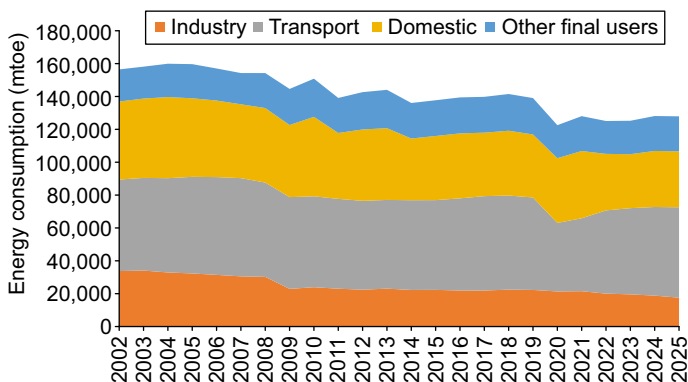
Declining energy and electricity consumption

The combination of high energy prices and the legislative burden has led to a steady reduction in both overall energy use and electricity generation as shown in Figure 14.

Overall UK energy consumption is down 29.2 per cent from its peak in 2005 and domestic electricity generation is down 26.5 per cent from its peak, also in 2005.

Slightly different data from UK Energy Trends illustrated in Figure 15 show final energy consumption down 20.3 per cent overall since peaking in 2004.

Figure 15 Total final energy consumption (unadjusted) by sector (mtoe)

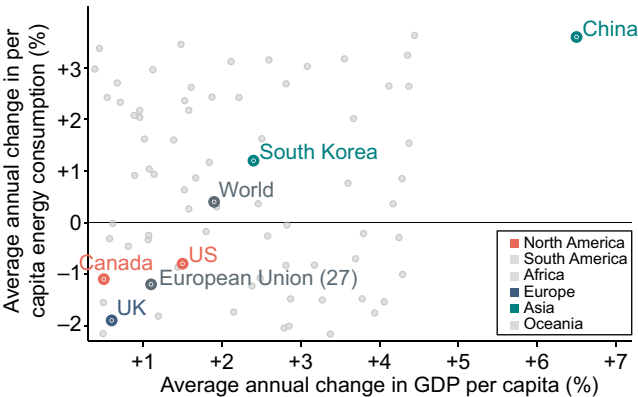


Source: UK Energy Trends ET1.3 (<https://www.gov.uk/government/statistics/total-energy-section-1-energy-trends>).

The detailed sector data show industrial consumption is down 45.3 per cent since the peak total consumption in 2004. Domestic consumption is down 32 per cent.

Transport energy consumption is down a more modest 3.6 per cent and other users (mostly service industries) are up a modest 1.3 per cent. It is hardly surprising the economy is struggling to grow when industrial energy consumption is collapsing.

Figure 16 Energy use per person vs. GDP per capita, 2008–24



Source: Our World in Data (https://ourworldindata.org/grapher/energy-use-per-person-vs-gdp-per-capita?stackMode=relative&zoomToSelection=true&time=2008..latest&country=OWID_WRL~CHN~KOR~GBR~OWID_EU27~USA~CAN).

Impact on growth and productivity

The impact of expensive, scarce energy has caused a drag on growth is demonstrated in Figure 16. The chart compares the change in per capita energy consumption to the change in GDP per capita over the period 2008–24.

The UK has reduced energy consumption by 2.4 per cent per annum. This is more than Canada, the EU27,

Japan and the US. As a result GDP per capita has virtually stagnated, growing at just 0.4 per cent per annum, lower than the EU27 and all the other G7 countries except Canada. By contrast, world GDP per capita has been growing at close to 2 per cent per year and energy use per person has increased by about 0.5 per cent per annum. Asian countries such as South Korea and China have increased energy use even faster and have accordingly grown much faster. The UK's energy consumption per person is much lower than many other poorer countries such as Belarus, Bulgaria, Kazakhstan, Malaysia, Poland and Turkmenistan.²¹ The UK economy will at best stagnate if the current energy austerity policies are maintained.

The reduction in energy consumption, particularly in industry has also taken its toll on productivity. Using ONS data, Figure 17 analyses the period from the beginning of the Climate Change Act in 2008 to 2024.

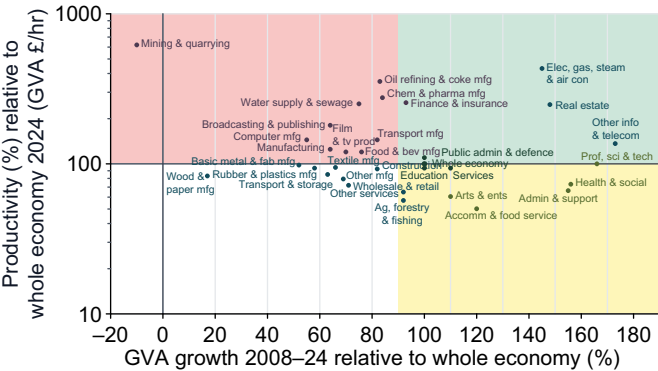
The x -axis shows the relative growth rate of different industry sectors over the period. The mid-point of 100 per cent represents the whole economy growth rate over the period. The y -axis shows the relative productivity of each sector in 2024 on a log-scale, with the mid-point of 100 per cent representing the whole economy.

The chart is divided into four quadrants. In the white quadrant we can see sectors such as wholesale and retail, agriculture, forestry and fishing and transport and storage are all growing more slowly than the whole economy

21 OWID Energy use per person (<https://ourworldindata.org/grapher/per-capita-energy-use?tab=line&country=CHN~GBR~TKM~BLR~KAZ~MYS~POL~BGR>).

and have below-average productivity measured by gross value-added (GVA) per hour worked.

Figure 17 Productivity vs. relative GVA growth by industry sector in 2008–24



Source: ONS Output per hour worked whole economy and section level industries (<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/datasets/outputperhourworkeduk>); ONS Output per hour worked bespoke industries and division level (<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/outputperhourworkedbydivisionuk>).

The yellow quadrant shows sectors such as accommodation and food service, health and social care, arts and entertainment are growing faster than the whole economy yet have lower-than-average productivity.

The green quadrant shows sectors such as real estate and information and telecommunications growing faster than the whole economy with above-average productivity.

Finally, the red quadrant shows sectors with above-average productivity growing more slowly or shrinking

in absolute terms compared to the whole economy. The manufacturing sector has grown at two-thirds the rate of the whole economy, but the sector's productivity is 122 per cent of the whole economy. Included in this segment are mining and quarrying that contains oil and gas extraction where GVA has fallen in absolute terms by 7 per cent over the period, yet productivity is 637 per cent of the whole economy average. The red segment also includes oil refining as well as the chemical and pharmaceutical sectors, both of which have much higher productivity, 384 per cent and 292 per cent of the average, respectively. Transport manufacturing, which includes making cars and buses, is also a relatively high productivity sector at 141 per cent of the whole economy average. All these sectors have grown more slowly than the whole economy.

Looking in more detail, hours worked are down 9 per cent in mining and quarrying. High taxes on domestic oil and gas producers, coupled with the effective ban²² on new exploration drilling have led to estimates of 1,000 jobs per month being lost in the oil and gas industry in the North Sea.²³ The economic impact of these job losses is far greater than the headline job losses because this sector creates more than six times the value added per hour worked than the whole economy.

There are also additional impacts further downstream in refining and petrochemicals, where hours worked are

22 DESNZ news story (<https://www.gov.uk/government/news/north-sea-future-plan-for-fair-managed-and-prosperous-transition>).

23 Robert Gordon University transcript (<https://www.rgu.ac.uk/wp-content/uploads/2025/12/North-Sea-industry-leader-says.pdf>).

down 14 per cent. Grangemouth oil refinery closed in April 2025, with the loss of 400 jobs.²⁴ The oil-refining sector produces about four times the GVA per hour worked than the whole economy so again, the economic impact of these job losses is amplified. As well as producing fuels like petrol, diesel and kerosene that now must be imported, Grangemouth produced essential feedstock for the petrochemicals industry. These include ethylene, propylene and polymers such as polyethylene and polypropylene.²⁵ The chemicals and pharmaceutical industries create about three times the value added per hour worked than the whole economy, but total hours worked is down 2 per cent.

It should be noted too that hours worked per week are down 11 per cent in computer manufacturing, and 3 per cent in transport manufacturing which indicates there have been job losses over the period. While the job losses have been relatively modest, the loss of GVA is much more significant because these industries add so much more value per hour worked.

The loss of North Sea oil and gas production has a large economic impact on its own and even more impact that extends further along the value chain, hollowing out industries producing vital building blocks that society depends upon.

The productive sectors of the economy tend to be energy intensive and have been made less competitive by the

24 Grangemouth to stop refining with 400 jobs lost (<https://www.thechemicalengineer.com/news/grangemouth-refining-to-stop-next-year-with-400-jobs-lost/>).

25 About Grangemouth (<https://www.ineos.com/sites/grangemouth/about>).

imposition of high energy prices and the huge regulatory burden. Moreover, these industries tend by their nature to be capital intensive. Expensive energy, high taxes and an onerous regulatory regime has led companies such as Ineos to abandon new investment in the UK.²⁶ As these companies move abroad Britain also loses out on investment that would lead to further growth.

Conclusions

Energy is the foundation stone of modern economies as demonstrated by there being no examples of rich countries that are low energy consumers. The UK has imposed a swathe of legislation that has increased the regulatory burden and made energy scarce and expensive. In particular, the focus on expensive and intermittent renewables and punitive taxes on hydrocarbons has given the UK the most expensive industrial electricity prices in the developed world.

As a result, energy and electricity consumption are in a steep downtrend and the economy is flatlining. Energy consumption in the industrial sector is plummeting and many of the most productive sectors in the economy are shrinking. We need look no further than its spectacularly unwise energy policy to find out why Britain has stopped growing.

26 Jim Ratcliffe's energy empire abandons UK investment (<https://archive.is/ROBK8>).

Appendix: The legislative labyrinth

The Gas Act 1986 Section 33BC²⁷ empowers the Secretary of State to impose mandatory carbon emissions reduction targets on gas transporters and suppliers. This legislation compels companies to promote energy efficiency measures to consumers, helping to achieve national emission reduction targets. Section 33BC has since been amended and strengthened by subsequent legislation.

The Electricity Act 1989 Section 32²⁸ established the legal framework for the Renewables Obligation (RO), forcing electricity suppliers to source a growing percentage of their electricity from renewable sources. It enables the Secretary of State to create orders mandating the production of Renewables Obligation Certificates (ROCs) to support green energy generation. Section 33 established the fossil fuel levy – a mechanism to subsidise non-fossil fuel electricity generation.

The Pensions Act 1995 Sections 41A and 41B²⁹ place climate change obligations on pension trustees. As part of their fiduciary duties, trustees must explicitly consider climate change risks in their investment strategies. They must also produce, publish and make available reports on their climate risk management and governance.

Section 9A of the Petroleum Act 1998³⁰ made the principal objective of the regulator and industry to maximise

27 <https://www.legislation.gov.uk/ukpga/1986/44/section/33BC>

28 <https://www.legislation.gov.uk/ukpga/1989/29/section/32>

29 <https://www.legislation.gov.uk/ukpga/1995/26/section/41A>

30 <https://www.legislation.gov.uk/ukpga/1998/17/section/9A>

the economic recovery of UK petroleum. However, since 2021 the strategy must also consider how the oil and gas industry can achieve the contradictory objective of achieving the Net Zero 2050 target. The revised North Sea Transition Authority (NSTA) strategy³¹ (formerly the Oil and Gas Authority) obliges the operators to reduce greenhouse gas emissions from a 2018 baseline by 10 per cent by 2025, 25 per cent by 2027, 50 per cent by 2030 and to achieve a Net Zero basin by 2050. This is forcing operators to replace gas turbines with renewable power to run their offshore operations.

The Utilities Act 2000³² contained provisions in section 62 to impose obligations on electricity suppliers to procure a certain percentage of their electricity from renewable sources, known as the Renewables Obligation. Section 66 abolished the fossil fuel levy introduced in the Electricity Act 1989.

The Finance Act 2000 Section 30³³ introduced the Climate Change Levy (CCL), which is a tax on energy use by businesses. Effectively, the CCL increases the cost of fossil fuels and hence operating costs. Some relief for these additional costs is available to businesses through Climate Change Agreements (CCAs),³⁴ which give discounts on the CCL if energy efficiency targets are met.

31 <https://www.nstaauthority.co.uk/regulatory-information/regulatory-framework/the-oga-strategy/>

32 <https://www.legislation.gov.uk/ukpga/2000/27/contents>

33 <https://www.legislation.gov.uk/ukpga/2000/17/section/30>

34 <https://www.gov.uk/guidance/climate-change-agreements--2>

Section 172 of the Companies Act 2006³⁵ establishes a core duty for directors to act in good faith and have regard for the long-term consequences of their actions. Section 414A provides an additional duty to prepare a strategic report. Section 414CB mandates that companies include a statement on non-financial matters that must cover environmental issues and climate-related disclosures must now follow the Taskforce on Climate-Related Financial Disclosures (TCFD) framework.

The Climate Change and Sustainable Energy Act 2006³⁶ is designed to mitigate climate change by promoting microgeneration from low-carbon sources such as wind and solar. The Act also requires the government to report annually to Parliament on progress reducing greenhouse gas emissions. The Act also requires building regulations to consider energy efficiency and the use of low-carbon technology in buildings.

The Energy Act 2008³⁷ introduced legislation to support storage of carbon dioxide and FiTs to support small-scale renewable electricity generation. FiT costs are recovered through electricity bills.

Article 8 of the Human Rights Act 1998³⁸ has been interpreted by the European Court of Human Rights that the right to a private and family life means that states

35 <https://www.legislation.gov.uk/ukpga/2006/46/contents>

36 <https://www.legislation.gov.uk/ukpga/2006/19/contents>

37 <https://www.legislation.gov.uk/ukpga/2008/32/part/2/crossheading/feed-in-tariffs-for-small-scale-generation-of-electricity>

38 <https://www.legislation.gov.uk/ukpga/1998/42/contents>

are obliged to protect citizens from the serious adverse effects of climate change.³⁹

Section 1 of the Climate Change Act 2008⁴⁰ imposes the legal duty of the Secretary of State to set the carbon target for 2050. Originally, this was an 80 per cent reduction compared to the 1990 baseline but was amended by the 2050 Target Amendment Order 2019⁴¹ to a 100 per cent reduction. Section 4 of the Act mandates that the Secretary of State sets legally binding carbon budgets to act as stepping stones towards the 2050 target. The Committee on Climate Change (CCC) was established by section 32 of the Act. Sections 56 to 58 create obligations on the Government to produce Climate Change Risks Assessments (CCRAs) every five years, for the CCC to provide advice on the CCRAs and for the Government to respond with a National Adaptation Programme (NAP) to address the specified risks.

The Finance Act 2011⁴² amended the CCL legislation and introduced the Carbon Price Support mechanism, which is designed to top up the carbon price paid by electricity generators alongside the EU or UK ETS.

The Energy Act 2013⁴³ contains many provisions to transform the electricity market to meet legally binding targets. These include introducing Contracts for

39 <https://commonslibrary.parliament.uk/a-new-precedent-for-climate-change-in-human-rights-law>

40 <https://www.legislation.gov.uk/ukpga/2008/27/contents>

41 <https://www.legislation.gov.uk/ukdsi/2019/978011187654>

42 <https://www.legislation.gov.uk/ukpga/2011/11/contents>

43 <https://www.legislation.gov.uk/ukpga/2013/32/contents>

Difference (CfDs) to drive investment in renewables; setting targets for decarbonising the electricity sector by 2030; introducing the Capacity Market to manage the intermittency of renewables and introducing the Emissions Performance Standards (EPS) setting a legal limit of 450gCO₂/kWh on the emissions of new fossil-fuelled power plants. This acts as a barrier to opening new coal-fired power plants.

The Emissions Performance Standard Regulations of 2015,⁴⁴ Regulations 3 and 7, effectively ban new unabated coal-fired power stations.

Parts 4 and 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017⁴⁵ govern the information required and scope of Environmental Statements. Together they must assess climate factors including greenhouse gas emissions as well as indirect, secondary, cumulative and long-term effects. This means including so called Scope 3 emissions such as the emissions from burning hydrocarbons produced from an oil or gas field.

The Greenhouse Gas Emissions Trading Scheme Order 2020 (SI 2020 No. 1265)⁴⁶ created the UK Emissions Trading Scheme (ETS) and replaced the UK's participation in the EU ETS. This statutory instrument established the legal framework for the cap-and-trade system to regulate industrial greenhouse gas emissions.

44 <https://www.legislation.gov.uk/uksi/2015/933/note#>

45 <https://www.legislation.gov.uk/uksi/2017/571/contents>

46 <https://www.legislation.gov.uk/uksi/2020/1265/contents>

The Environment Act 2021⁴⁷ introduced a new statutory body, the Office for Environmental Protection tasked with holding public bodies to account for meeting environmental targets. The Act also requires the government to set long-term (minimum 15-year) legally binding targets in four priority areas: air quality, biodiversity, water and waste reduction. These targets are designed to align with and support the UK's broader Net Zero Strategy by driving systemic transformation across the economy.

The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021⁴⁸ force trustees to identify, assess and manage climate-related risks and opportunities, significantly boosting transparency and driving capital toward net-zero aligned investments to meet Paris Agreement goals. Section 41A (Climate Change Governance) enables the Secretary of State to require trustees to implement effective governance regarding climate-related risks and opportunities. It forces trustees to integrate climate scenario analysis and risk management into their investment strategies. Section 41B (Climate Change Reporting) enables the imposition of requirements for trustees to publish information on their climate governance and risk management.

The Companies Strategic Report (Climate-Related Financial Disclosure) Regulations 2022⁴⁹ make TCFD-aligned disclosures mandatory for companies with over

47 <https://www.legislation.gov.uk/ukpga/2021/30/contents>

48 <https://www.legislation.gov.uk/uksi/2021/839/contents>

49 <https://www.legislation.gov.uk/uksi/2022/31/contents/made>

500 employees or a turnover of over £500m. Section 414CB ensures that climate risk is not just an ESG footnote but a central component of a company's financial reporting within their strategic report. The Limited Liability Partnerships (Climate-Related Financial Disclosure) Regulations 2022⁵⁰ introduced similar obligations on LLPs.

The Energy (Oil and Gas) Profits Levy Act 2022⁵¹ introduced the Energy Profits Levy (EPL) better known as the windfall tax. The initial Act introduced a 25 per cent levy, giving a total tax rate of 65 per cent on profits, but there was an 80 per cent investment allowance for fossil fuels. Later the levy was increased to 35 per cent and then 38 per cent, giving a total rate of 78 per cent. The investment allowance has also been watered down to 29 per cent and then zero, although a 66 per cent decarbonisation allowance remains.

The Health and Care Act 2022⁵² legally mandates the NHS to contribute to the UK's net-zero targets and adapt to climate change. Section 13NC explicitly requires NHS England to align with the Climate Change Act 2008 and the Environment Act 2021, mandating action on both emission reduction and climate adaptation. The Act supports the NHS commitment to reach net zero by 2040 for directly controlled emissions and 2045 for indirect emissions. Every NHS Trust and Integrated Care Board is required to have a 'green plan' to reach net zero, with annual progress updates.

50 <https://www.legislation.gov.uk/uksi/2022/46/contents/made>

51 <https://www.legislation.gov.uk/ukpga/2022/40/contents>

52 <https://www.legislation.gov.uk/ukpga/2022/31/contents>

The Energy Act 2023⁵³ is a huge bill designed to transition the energy system towards net-zero emissions by 2050. Section 202 amends the Gas Act 1986 and the Electricity Act 1989, explicitly aligning Ofgem's principal duties with the Climate Change Act 2008 and net zero targets. This is a big shift away from the former narrow focus on consumer protection. The Act also seeks to accelerate low-carbon technologies such as Carbon Capture, Usage and Storage (CCUS), hydrogen, nuclear power and offshore wind. Section 239 of the Act also gives the Government power to set regulations for energy-smart appliances and sections 241–43 set out enforcement measures and penalties for non-compliance including conferring powers of entry by reasonable force and powers of inspection, search and seizure. Sections 250–53 include provisions to make energy performance regulations including sanctions that may include imprisonment.

The UK Infrastructure Bank Act 2023⁵⁴ places a legal obligation on the Bank to contribute to the UK's 2050 net-zero target and is intended mobilise green finance by getting the Bank to act as a catalyst for private investment in hard-to-abate sectors.

53 <https://www.legislation.gov.uk/ukpga/2023/52>

54 <https://www.legislation.gov.uk/ukpga/2023/10>

6 TAX

Tom Clougherty

Has the British tax system undermined growth?

How should we assess how supportive of economic growth, or how destructive of it, a tax system is?

Much commentary focuses on the overall tax burden, and with good reason. All things being equal, funds are more likely to be deployed productively when they are left in the hands of the private sector, rather than being put at the disposal of the government. Moreover, as a rule, the more you tax something, the less you get of it. Heavy tax burdens are likely to depress the private sector economic activity that adds up to economic growth – even if the taxes themselves are well structured.

But that leads to a second consideration: it is clear that the *quality* of a tax system matters as well as the *quantity* of revenue it produces. At any given level of revenue, there are more and less growth-friendly ways for a government to bring in cash. Indeed, if taken to extremes, a relatively lower-tax system could be more growth-destructive than a higher-tax one, as a consequence of how those taxes were levied. As a result, simple comparisons of the overall tax burden cannot wholly explain differential paths for

economic growth – even if you control for other policy differences.

How, then, to assess the economic quality of a tax system? The crucial concept is *neutrality*: the degree to which taxes impact economic decision-making. A well-designed tax system will raise necessary revenue while minimising its impact on whether and how to work, save, invest and spend. The less neutral a tax system is, the more distortionary it becomes. The more policy factors come to outweigh economic ones, the more growth will suffer.

Of course, neutrality is easier to maintain when the tax burden is lower. However, this chapter will suggest that Britain's tax system has become less neutral – more distortionary – in ways that are not explained simply by a higher tax burden.

One indicator of a tax system's neutrality is its composition: which broad categories of tax are employed, and what is the relative weight of each of them? This matters because research has revealed a clear hierarchy of taxes (Johansson et al. 2008). Economists tend to believe that corporation tax has the most negative effect on GDP per capita, followed by taxes on personal income. Taxes on consumption are less damaging, and well-designed property taxes are less damaging still. (That 'well-designed' caveat is important.) The more a tax system relies on relatively benign sources of tax revenue, the more pro-growth it is likely to be.

Marginal tax rates are also important. The higher tax rates are at the margin, the more heavily they weigh on people's choices, and the more distortionary they will be.

A low marginal tax rate may be an annoyance; a high one can be prohibitive. At any given level of revenue, a lower tax rate levied on a broader tax base is likely to be preferable from an economic perspective.

However, we need to be cautious when talking about tax bases, because the choice of *what* to tax can have profound economic implications. In particular, taxes on personal and corporate income tend to create a bias against saving and investment – the seed corn of future growth. Structural features of the tax system that offset this ‘double taxation’ effect, such as tax relief for saving and capital allowances for investment, may appear to be an unwise narrowing of the tax base; in fact, they are essential modifications from a pro-growth perspective.

Taxes are also likely to be especially burdensome when they weigh on business inputs. Capital is one such input, but there are others – labour, land and energy chief among them. We should also consider the complexity of taxation, and its associated administrative burden. The more complicated a tax system and the harder it is to comply with, the greater its deadweight costs are likely to be.

When combined with the tax burden, these factors – the tax system’s composition, the tax rates it imposes at the margin, the definition of the base it taxes, the degree to which it weighs on transactions and business inputs, and its complexity – allow us to form a judgement of how pro-growth a tax system is. In the sections that follow, we will trace the evolution of Britain’s tax system on these fronts, with a particular focus on the period

from 2000 to the present day. In doing so, we will see how much the tax system is implicated in Britain's economic slowdown.

We will see that over the past quarter-century, as the tax burden has risen, so too has the structure of the tax system become markedly worse. Accordingly, while tax is far from the only factor in Britain's ongoing stagnation – other essays in this collection will attest to that – it must be considered a contributing factor, and a worthy focus for further research.

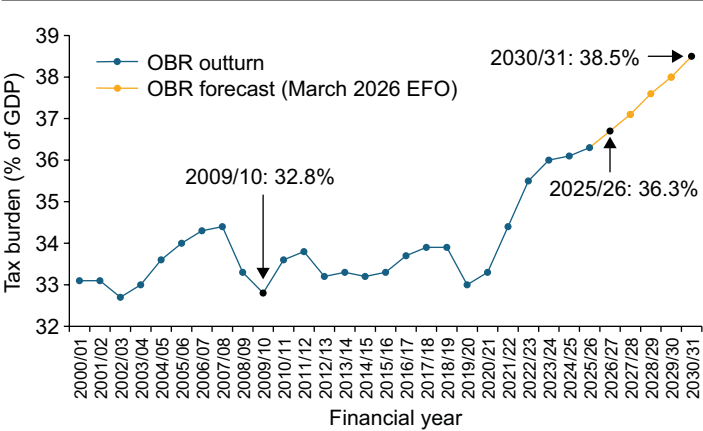
What's more, the current trajectory of the tax system suggests that it will prove a more significant barrier to growth in the 2020s than it was in the 2010s. From a tax perspective, the 2030s could be even worse.

Britain's tax burden

Let's start with the tax burden. As Figure 18 shows, tax receipts as a percentage of GDP have recently risen to 37 per cent of GDP. Looking at the tax burden since the turn of the millennium, we can see a few distinct phases. From 2000 to 2007, the burden steadily rose as a percentage of GDP, as the Labour government increased taxes to pay for higher spending on public services. The financial crisis triggered a sharp drop in tax receipts, as profits fell and unemployment rose. Tax revenue ticked up as a percentage of GDP immediately afterwards, and then hovered between 33 and 34 per cent of GDP through the rest of the 2010s, under Coalition and Conservative governments. The trajectory was upward, but modestly so.

Things changed quite dramatically after the pandemic, as inflation and frozen tax thresholds combined to send the tax burden sharply upwards. Forecasts show the tax burden continuing to rise through to the end of the decade, to a peak of 38.5 per cent of GDP in 2030/31.

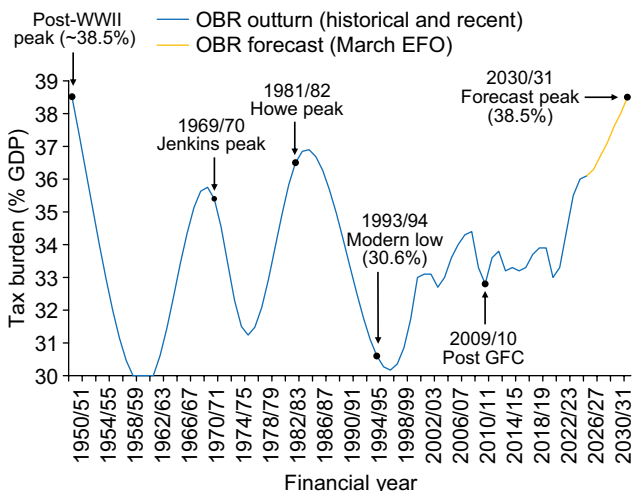
Figure 18 UK tax burden since 2000/01
(national accounts taxes as % of GDP)



Source: Office for Budget Responsibility.

As Figure 19 shows, the tax burden has not been this high since 1948, when Britain was still emerging from the shadows of World War II. The tax burden fell in the 1950s, rose in the 1960s and 70s, and then fell through the 1980s to reach a record low in 1993, at 30.6 per cent of GDP. To put that in context, the 7.4 percentage point difference from today equates to more than £200bn – or nearly three quarters of annual income tax revenue. This is a very significant change.

Figure 19 UK tax burden since 1948/49
(national accounts taxes as % of GDP)



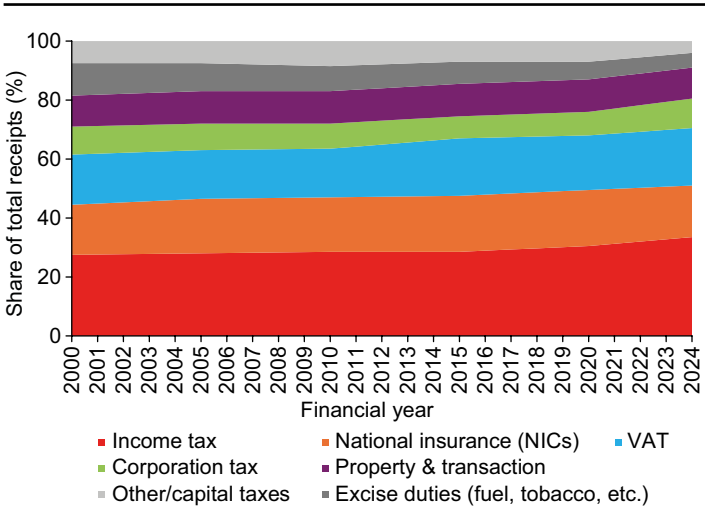
Source: Office for Budget Responsibility.

Examining these data, one could make the case that Britain's tax burden has risen significantly as its economy dropped to a lower trend rate of economic growth following the financial crisis. Look closely, however, and questions present themselves. Britain's growth rate dropped straight after the financial crisis; the bulk of the increase in the tax burden is concentrated in the period after 2020. And while the tax burden did rise over the course of the 2010s, it did so less rapidly and less substantially than it did during the apparently prosperous decade spanning the late 1990s to the late 2000s. You cannot rule out delayed or cumulative effects, but it seems safe to say that the tax burden alone does not tell the whole story.

The composition of British tax revenue

As noted above, OECD research has established a clear ‘growth hierarchy’ among the main categories of taxes, with corporate and personal income taxes relatively more damaging to GDP per capita, and consumption and property taxes relatively less damaging. So, with this in mind, how has the composition of the British tax system changed over the past quarter-century?

Figure 20 Evolution of the UK tax mix (2000–24) percentage share of total government receipts



Source: Office for Budget Responsibility.

Figure 20 shows the main British taxes’ percentage share of total revenues between 2000 and 2024. The most immediate observation is that the combined share of

income tax and national insurance contributions – essentially ‘personal income taxes’ in the broader sense, although some smaller such taxes, such as capital gains tax, fall under ‘other’ in this categorisation – has risen from 44.5 per cent of tax revenue in 2000, to 51 per cent of tax revenue in 2024.

At the same time, although VAT revenue has risen slightly, excise duties – the other bit of consumption taxation – have dropped significantly, in large part because of the declining real-terms value of fuel duties. As a result, the consumption tax share of total tax revenue fell from 28 to 22.5 per cent.

Both of these trends have continued since 2024, too, with the tax threshold freeze driving up personal income taxes’ share of total revenue, and the continued fuel duty freeze (and temporary 5p cut) continuing to diminish excise revenue. Those fuel duty measures are set to begin being phased out from August 2026. As for personal income taxes, inflation remains stubbornly above target, and thresholds are frozen until April 2031. There is life in this trend yet.

In short, it appears that, since 2000, Britain has increased personal income taxes and reduced consumption taxes. This is the opposite of what the ‘tax-growth hierarchy’ would suggest, and has likely made the tax system more distortionary, and less pro-growth, over time.

As for the other taxes, corporation tax ends the period slightly higher as a share of tax revenue than it began it (10 per cent vs. 9.5 per cent), having fallen as low as 7.5 per cent in 2015. Property and transaction taxes remained

stable between 10.5 and 11 per cent of tax revenue throughout. (There's a fall in other/capital taxes towards the end of the period; falling road tax played a part here, as did reducing the 'bank surcharge' when the headline corporation tax rate went up.)

It is worth adding a few caveats. Firstly, the fact that the shift from consumption to income taxes made the tax system's composition less supportive of economic growth does not mean that raising VAT or fuel duty would boost Britain's economic performance. It may be, however, that reformed consumption taxes, with a broader-based, lower-rate VAT and excise duties targeted strictly at externalities, could provide the revenue necessary to lower taxes on personal income. *This* would be a pro-growth move.

Secondly, one might ask why, if corporate income taxes are the most damaging to economic performance, their decline as a share of overall tax revenue through the first half of the 2010s didn't result in stronger growth. There are two responses. For one thing, we do not know the counterfactual; maybe growth would have been even worse if corporation tax was higher. For another – and we will come back to this – the way corporation tax cuts were implemented may have blunted their potential pro-growth effects.

Thirdly, we should not assume that the stable revenue-share of 'property and transaction taxes' bodes well for the British tax system. As noted above, the 'well-structured' qualification to property taxes' place in the tax-growth hierarchy is very important. Recurrent taxes on residential property – even land value taxes – fit the

bill here. They may not be popular, but as taxes go they are relatively non-distortionary.

Yet Britain relies heavily on stamp duty land tax, a highly distortionary transaction tax that has a claim to being, in economic terms, the worst levy on the statute books. (Research by the Australian Treasury suggests that *their* stamp duty has a much higher ‘excess marginal burden’ than corporation tax; their findings otherwise line up with the OECD’s (Cao et al. 2015).) Britain also raises a lot of its property tax revenue from business rates – a tax on a business input that discourages investment. *Well-structured* property taxes these are not.

Marginal tax rates

High-level analysis of the tax burden and its composition can only take you so far. If you want to understand the impact of a tax system on economic behaviour, you need to examine the elements of tax that people confront when they make economic decisions. Let’s start with marginal tax rates on personal income.

On the face of it, there’s a pretty straightforward story to tell here. From Nigel Lawson’s famous 1988 budget until the financial crisis, Britain had a top income tax rate of 40p. At his 2009 budget, then-chancellor Alastair Darling announced a new *additional* rate of income tax, at 50p on earnings over £150,000, to take effect from April 2010. That rate fell back to 45p from April 2013 and has stayed there ever since. All of this is true, but it is also only one part of the story.

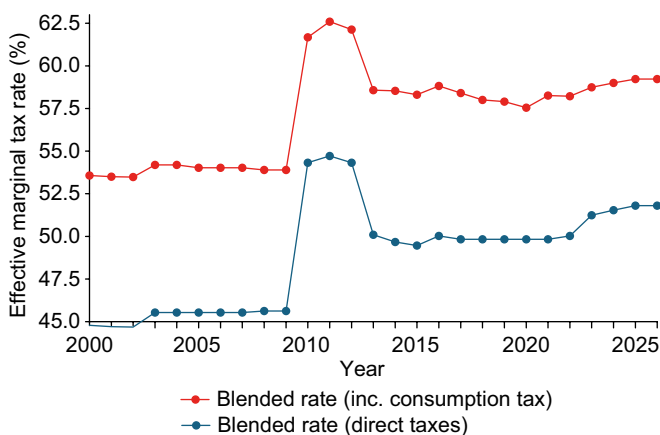
In reality, the effective marginal tax rates that people face are more complicated. Take national insurance. Until 2003, it wasn't levied on higher earnings at all. Gordon Brown introduced a 1p 'upper rate'; that rate rose to 2p under the Coalition government. But that's just the employee side of national insurance. Employers pay a higher flat rate levy on all earnings over a threshold; over the last quarter-century, that tax has risen from 11.8 to 12.8 to 13.8 to 15 per cent. And while *paid* by businesses, the economic incidence of the tax is felt by employees in the form of lower wages. You cannot understand the taxation of labour income without factoring in employers' national insurance contributions.

Then there's another complication: not all income comes from employment. Particularly at higher income levels, income from self-employment, partnerships, dividends and capital gains (collectively, these last two are 'capital income') is also important. What's more, capital income is usually subject to corporation tax *before* it is taxed at the individual level. Understanding marginal tax rates over time means integrating all of those taxes into a single, comparable measure.

Figure 21 shows a 'blended direct tax rate' from 2000/01 to 2026/27. This is composed of the top marginal rates for income tax, national insurance (both sides), corporation tax, capital gains tax and dividends tax, weighted according to a rough estimate of the income breakdown for the top 1 per cent. That is, 55 per cent employment, 20 per cent dividends, 10 per cent capital gains, 10 per cent partnership income and 5 per cent

from other sources.¹ It shows how much tax would be paid by a model ‘one-percenter’ on the next slice of economic value they created.

Figure 21 Blended top marginal tax rate in the UK over time



The lower line displays this blended tax rate over time. The upper line adds in the impact of consumption taxes, using ONS figures on indirect taxes as a percentage of expenditure for the top quintile of households as a

¹ The marginal tax rate on employment incorporates income tax and both sides of national insurance. Self-employment income is assumed to be taken in dividends at the margin. The tax rate on dividends and capital gains reflects the prior impact of corporation tax. ‘Other’ income is assumed to be taxed at income tax rates. The income composition is a rule of thumb, rather than the result of detailed analysis of tax microdata. It is inspired by Delestre et al. (2022) and Advani and Summers (2020), with income shares rounded and merged as necessary for ease of presentation.

proxy for the marginal tax rate, and assuming that all income is consumed.²

What does this visualisation tell us? It is immediately clear that marginal tax rates are fairly high – a high earner captures less than half of the marginal economic value they create after direct taxes; with consumption taxes factored in, the high earner's share of marginal value creation is closer to 40 per cent. Marginal tax rates at this level are likely to have a powerful disincentive effect.

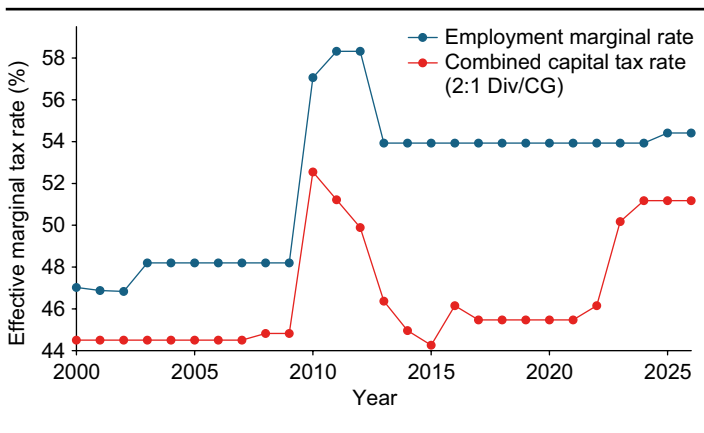
Secondly, we can see that marginal tax rates have trended up over time. They rose gently through the 2000s, then jumped sharply after the financial crisis. Marginal rates fell in the mid 2010s, but not to pre-crisis levels. They flatlined for about five years, and then began to rise again after the pandemic. Economic incentives for high earners got much worse when the 50p additional tax rate was introduced, and have not really recovered since.

Again, though, let's dig beneath the headline numbers. Figure 22 compares the integrated employment tax rate from 2000/01 to 2026/27 (that is, the combined effect of income tax and both sides of national insurance) with a 'combined capital tax rate' over the same period. This combined tax rate consists of corporation tax and capital gains/dividends tax, with the latter weighted according

2 The consumption tax rate used here is based on indirect taxes as a percentage of expenditure for all individuals in the top quintile by equivalised household disposable income, as derived from the Office for National Statistics' annual 'The effects of taxes and benefits on household income' datasets. Where that figure is not available for a specific year, the rate from adjacent years is extended forward (or back) as appropriate.

to their respective shares of the one-percenter's total income.

Figure 22 Top marginal tax rates: employment vs. capital in the UK



What this shows is that, first, before the financial crisis, there was a good deal of stability in the tax system. Corporation tax was 30 per cent. The top rate of income tax was 40 per cent. The effective marginal tax rate on capital gains was 10 per cent (thanks to taper relief, which meant that only a quarter of any gain was taxable provided the asset had been held for a certain period of time) and the effective marginal tax rate on dividends was 25 per cent (due to a so-called 'notional tax credit').

The combined capital tax rate jumps first, with Alastair Darling's abolition of taper relief and introduction of an 18 per cent flat-rate capital gains tax in 2008. Then both lines climb sharply in the wake of the financial crisis – the

employment line because of the introduction of the additional rate of income tax (which also pushed up the tax rate on dividends), and the capital line because the top rate of capital gains tax was raised to 28 per cent by the Coalition government.

In the space of a few years, the integrated employment tax rate and the combined capital tax rate each increased by about 10 percentage points – at a time of maximum economic weakness. Tax hikes on this scale can hardly have failed to have a deleterious growth effect.

The tax rate stability of the 2000s did not carry on in the 2010s. The integrated employment tax rate dropped in 2013 when the additional rate was cut to 45p, but that reversed less than half the previous increase. Employment taxation carried on at the same marginal rate until the recent increase in employers' national insurance contributions. The capital income rate fell slowly, eventually dipping below the pre-crisis level in 2017/18.

That downward shift was driven by the corporation tax rate falling progressively from 28 to 19 per cent, and the top rate of capital gains tax coming down from 28 to 20 per cent. By contrast, the top rate on dividends rose sharply in 2016. For six years, from 2017/18 to 2022/23, the effective marginal tax rate on capital income was stable, just above where it sat before the financial crisis. It has since risen again, thanks to increases in corporation tax (19–25 per cent), dividends tax (38.1–39.35 per cent) and capital gains tax (20–24 per cent).

In only one year this century has the combined marginal tax rate on capital income been higher than it is

now. And once again, we have followed a severe economic shock (in this case the pandemic) with a sharp increase in capital tax rates. To make matters worse, there is almost constant speculation that these tax rates will rise even further, to plug some fiscal hole or other in the government's finances. None of this bodes well for Britain's economic future.

It is also worth noting that this analysis does not account for inflation. Since capital gains taxes are levied on nominal gains, rather than inflation-adjusted ones, a period of high inflation like the one we have just been through (the price level is around 30 per cent higher than it was in 2020) can mean that the effective tax rate on *real* gains is much higher than the unadjusted rates shown above. In the low inflation environment of the 2000s and 2010s, this did not matter much – but the longer Britain suffers above-target inflation, the more problematic its capital gains tax regime will become.

Of course, some people object in principle to taxing capital income at lower rates than employment income. For some, it is a question of equity – a sense that the wealthy have 'tax breaks' available to them that ordinary workers cannot access. Others complain that this differential taxation is itself distortionary. Certainly, it does give people an incentive to incorporate and shift as much of their income into capital as possible.

Much of the tax-reforming energy on the centre-left goes into this issue and, indeed, the ability to lower marginal tax rates by shifting into dividends has now been eliminated. (In fact, the integrated tax rate on dividends

is now higher than it is on employment income, at 54.5 vs. 53.9 per cent). But those who can take their income as capital gains can still benefit from a somewhat lower marginal tax rate.³

Yet this point of view misses important considerations. Firstly, as we will see below, using an income base for taxation can create a structural bias against saving and investment. Lower marginal rates are an (imperfect) way to mitigate that effect. Secondly, capital income is different from labour income in that it involves risk – investors can lose their money. If you socialise too much of the reward from economic risk-taking, while the downside is strictly privatised, you upset the balance of incentives and may end up with a stagnant entrepreneurial environment. Finally, it may be that the behaviour that generates capital income is highly elastic – that is, it responds more to tax rates than employment does.

Indeed, this is why the foregoing analysis has focused on marginal rates at the top of the income distribution. Average tax rates on ordinary workers determine household budgets. But the danger in punishing top marginal rates is not that the wealthy end up with less money to spend. It is that the cohort of people we rely disproportionately on to allocate capital, scale businesses, and drive productivity gains decide that generating the next unit of economic value is no longer worth the effort.

3 The main way this occurs is by people building up cash inside a limited company, and taking that cash as a capital gain – rather than as ordinary income – when that company is liquidated or sold.

Fiscal drag and tax traps

One underappreciated phenomenon in the British tax system is that the highest marginal tax rates no longer apply solely to those at the very top of the income distribution.

The combined basic rate of income tax and national insurance have fallen over time, and the tax-free personal allowance has risen (increased employer NICs dampen but do not undermine this effect). Yet the point at which higher rates kick in has fallen in real terms quite significantly. According to the Institute for Fiscal Studies, only 6 per cent of adults paid higher rates of tax in 2000 (and only 3.5 per cent in 1990). That rose to around 8.5 per cent in 2010, around 9 per cent in 2020, and is projected to reach 14 per cent in 2027 (see Delestre and Waters 2023, Figure 1). That adds up to about 5.5m extra higher and additional rate taxpayers since the turn of the century. If high marginal tax rates are a disincentive to economically beneficial activity, then subjecting many more people to them must be bad for growth.

It is also the case that the most punitive marginal tax rates are not always targeted at the highest earners – by design. Those transitioning from welfare into work often face brutal tax rates (although this is something that has actually improved in the last 15 years). The tapering of child benefit, introduced in 2013 for parents earning more than £50,000 (now £60,000), created elevated tax rates that rose depending on how many children you had. Most discussed, however, is the withdrawal of the personal allowance for those earning more than £100,000, which

makes the effective marginal income tax rate in that band of income 60p rather than 40p.

When this measure was introduced in 2010, it was a minor quirk in the tax system, likely affecting well under 150,000 people. But thanks to the increase in the personal allowance over the 2010s – which extended the band of income withdrawal applied to – and inflation pushing up earnings, this 60p tax rate now hits around 723,000 people, according to a recent Freedom of Information request (the number affected has more than doubled since 2017/18).⁴

In fact, these numbers are understated: there is ‘bunching’ of earners just under the threshold, which suggests that many people are managing their incomes down (see, for example, Joyce and Xu 2019). Some of them will be parents of young children, who also face the loss of childcare subsidies if they earn a penny over £100,000. This can mean that they would have to earn tens of thousands of pounds more before tax, to be left any better off at all.

These tax traps clearly have an enormous impact on economic behaviour at the relevant margin, with many highly skilled people reducing or turning down work to avoid punitive tax rates. The degree to which this has affected or is now affecting economic growth is a good area for future research.

4 FoI request from NFU Mutual to HMRC (18 June 2025), cited in ‘How you can beat the 60% tax trap’ (9 December 2025), St. James’s Place.

The tax base

Marginal tax rates are very important, but they are not the only thing that matters in tax policy. The definition of the tax base is also crucial to how pro- or anti-growth a tax system is. What's more, the choice of the correct tax base likely becomes more important the higher the tax burden, and the higher the associated marginal rates become. If the tax base is distortionary, higher levels of tax exacerbate the effect.

It is commonly assumed that 'income' is the best tax base. Hence the frequently heard plea for a tax system that applies the same, progressive set of tax rates to all forms of income. As a rule, however, free market economists tend to prefer that the bulk of taxation is based on *consumption*. Why the difference of opinion?

It comes back to neutrality. Unless comprehensive income tax systems make certain adjustments – which effectively turn them into a tax on *consumed income* – they usually embed a structural bias against saving and investment into the tax system. Or, to put it another way, they are not neutral when it comes to the choice over whether to consume now or later.

To see why, imagine two people – let's call them Spender and Saver – who each earn £100.⁵ Spender consumes his income straight away. Saver invests his in a productive asset that rises in value by 5 per cent a year for a decade. In a tax-free world, Spender gets to consume £100, while

5 This example is inspired by a similar one in Carroll and Viard (2012).

Saver eventually gets to consume £160 after realising his gain.

Now imagine that we have a 40 per cent flat tax on all income, regardless of its source. The £100 earned by Spender and Saver becomes £60 in take-home pay. For Spender, the tax situation is straightforward: a 40 per cent income tax means he gets to consume 40 per cent less than he would in a world without taxes.

For Saver, though, things are more complicated. For one thing, rather than investing £100, he can only invest £60. So a decade later, his investment is worth about £98, rather than £160. And once his £38 gain is taxed at 40 per cent he is left with just £82.80 to consume (£98 minus £15.20 in tax). That's roughly 48 per cent less than in a world without taxes.

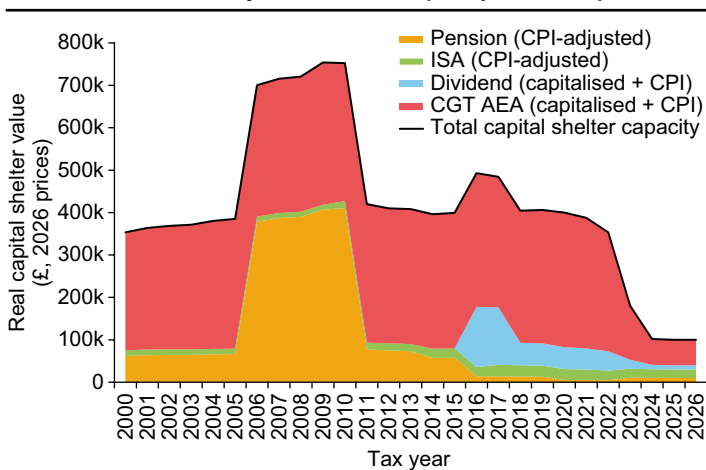
In other words, Saver faces a higher overall tax burden than Spender, solely because he wants to consume in the future, rather than today. Note that we are not factoring corporation tax into this calculation. Nor are we taking account of inflation. If we assume that capital gains tax is levied on nominal gains, and that annual inflation throughout this period was just 3 per cent, then Saver's *real* gain is only about £17 – and the tax owed eats nearly 90 per cent of it. Why save or invest in a tax environment like that, where there is no reward for deferring consumption?

Saving and investment leads to capital accumulation, which drives productivity increases, which translate into economic growth. In extremis, then, comprehensive income tax systems can be very problematic from an economic perspective. As noted, that's one reason most

countries levy lower tax rates on capital income than labour income. It is also why we have a variety of tax reliefs and allowances intended to at least partly restore the economics of saving and investment.

Most prominently, Britain gives tax relief when people put money into a pension (in effect, tax is deferred until you withdraw the income to consume it); you can save tax free in an Individual Savings Account, or ISA; and at various times, various ‘annual allowances’ have been put in place so that modest amounts of capital income are sheltered from tax.

Figure 23 The rise and fall of tax neutrality (2000–26) total inflation-adjusted shelter capacity for the top 1%



But how extensive are these modifications to the income tax system? How have they changed over time? And

might they help explain the British tax system's impact on growth over the past quarter-century?

Figure 23 visualises the annual value of four such features of the tax system: the annual allowance for pension contributions, the annual allowance for ISA contributions, the annual exempt amount (AEA) for capital gains and the dividends allowance. In each case, the figures applicable to the highest earners have been used. All numbers have been adjusted for inflation, so that they are expressed in today's money. For the sake of comparison, the AEA and dividend allowance have been capitalised based on a 5 per cent rate of return, so that, for example, a £5,000 allowance is taken to shelter the return on £100,000 of investment.⁶

What this visualisation shows is that the ability to shelter capital income from tax has been on something of a rollercoaster ride in recent years. Tax shelter capacity rose sharply in the mid 2000s when Gordon Brown simplified the pension system, replacing a complicated 'earnings cap' with a straightforward annual allowance of £215,000. At the graph's 2009 peak, £753,000 of capital could effectively be placed outside the personal income tax system in a single year. That fell sharply with the imposition of a tapered annual allowance from 2011 onwards. Nevertheless, total tax shelter capacity continued

6 Of course, this methodology somewhat exaggerates the importance of the AEA and the dividends allowance, since they are not cumulative in the way pensions and ISAs are. What this chart really shows is how much investment can be sheltered from tax in Year 1, assuming the investor starts from zero.

at roughly pre-2006 levels, in real terms, through the 2010s.

It is only after the pandemic, with inflation starting to eat away at the ISA allowance (frozen in nominal terms since 2017) and the AEA and dividends allowance cut at successive budgets, that tax shelter capacity really started to plummet. Today, it stands at £100,000 (as modelled), down from around £350,000 in 2000, around £750,000 in 2010 and around £400,000 in 2020.

Given the timing of these changes, it seems unlikely that such alterations to the personal income tax base played a significant role in the UK's growth slowdown after the financial crisis. However, more recent shifts, coming as they do in concert with higher inflation and significantly higher marginal tax rates, do fundamentally make the British tax system less neutral towards saving and investment, and may therefore cause problems now and in the future.

Before moving on, it is worth noting that wealthy individuals still have routes open to them to shelter investments from tax. Capital gains on gilts and primary residences are exempt from tax, for example. The Enterprise Investment Scheme (EIS), the Seed Enterprise Investment Scheme (SEIS) and Venture Capital Trusts (VCTs) each offer a variety of up-front and downstream tax reliefs, which remain generous even as annual allowances have been eroded by inflation over time. However, creating schemes which channel investment in certain, politically approved directions hardly amounts to a restoration of tax neutrality, however well-meaning or welcome-in-context they may be.

Corporation tax and capital allowances

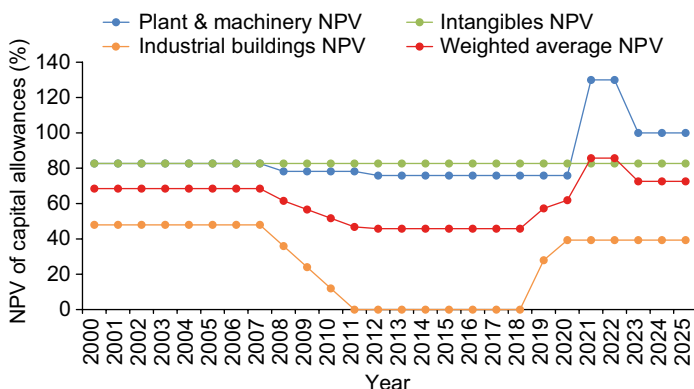
Similar thinking can be applied to corporation tax. Corporation tax is a tax on profits, so logically it should be a tax on a business's income, *less* the costs of generating that income. However, most tax systems – Britain's included – depart from that simple model in important ways. In particular, they draw a distinction between operating expenses (paying wages, purchasing supplies) that are immediately deductible from taxable income and capital expenses (investment in machinery or factories, say) which must often be deducted gradually via a system of annual capital (or 'writing-down') allowances.

In a way, this makes sense. Investment takes time to produce a return, so why not spread out the tax deduction too? The problem is inflation and opportunity cost. A tax deduction in ten years' time is less valuable than one today. The longer a capital allowance is drawn out, and the worse inflation is, the less accurate a reflection of the initial investment cost the tax deduction is going to be. In this sense, corporation tax can embed a bias against capital investment in the tax system – and that can be bad for economic growth. The solution is either 'full expensing', in which capital investment is immediately deductible without limit, 'neutral cost recovery', whereby rolled-forward capital allowances are uprated in line with inflation and the time value of money, or both.

Understanding these dynamics helps to make sense of the potential growth impact of changes to corporation tax over the past quarter-century, and particularly

since the financial crisis. On the one hand, you have the steady reduction in the headline corporation tax rate, beginning with the reduction from 30 to 28 per cent in 2007, and then falling gradually to 19 per cent from 2010 to 2017. Later, you have the abrupt increase back to 25 per cent in 2023.

Figure 24 UK capital cost recovery, 2000–25; NPV of capital allowances by asset class



Source: Author's calculations using Tax Foundation methodology (capital cost recovery across the OECD); UK rules from HMRC. Weighted-average uses 44/41/15 weights.

Yet the headline is only part of the story. As Figure 24 shows, just as the tax rate was falling, the Net Present Value (NPV) of the associated capital allowances was falling – fairly gently for plant and machinery, and quite dramatically for structures and buildings (from 2011 to 2017, these investment costs were not deductible *at all*). The structures and buildings allowance was

reintroduced in 2018 and made more generous in 2020, but has not returned to its pre-financial crisis NPV. When the headline rate increase was *announced* in 2021, it was accompanied by a 130 per cent super-deduction for plant and machinery. That was replaced by standard full expensing when the higher, 25 per cent headline tax rate came into force.

In short, the effect of falling headline rates was dampened by stingier capital allowances; the impact of a much higher headline rate was ameliorated by more generous ones.

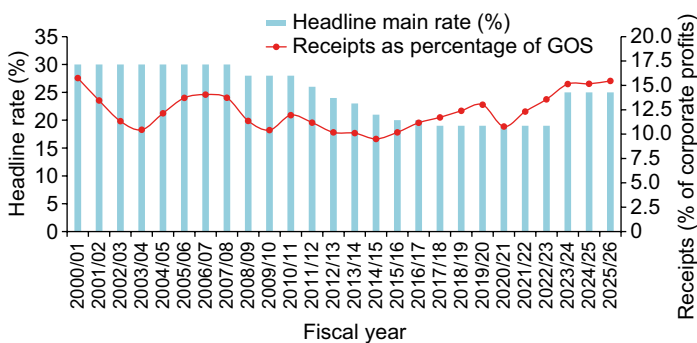
Naturally, it is difficult to work out exactly how all these factors combine, and what their net effect is likely to be. In reality, different kinds of businesses will benefit more or less from different mixes of rates and capital allowances. In general, the more capital-intensive a business is, the more important capital allowances will be versus the headline rate, and vice versa.

Figure 25 underlines the offsetting impact of less generous capital allowances on corporation tax revenues.⁷ Even as the headline tax rate fell through the 2010s, tax revenue as a percentage of corporate profits remained fairly stable, falling in the first half of the decade (to a low of 9.5 per cent in 2014/15) but then rising again (to a high of 13 per cent in 2019/20). Perhaps, then, we should not be surprised that falling statutory corporation tax rates failed to spark growth, or make Britain any less

7 Tax expert Dan Neidle (2023) has made the same point using a variety of different methodologies.

of a laggard among advanced economies on business investment.⁸

Figure 25 UK corporation tax: headline rate vs receipts as a share of corporate profits; fiscal years from 2000/01 to 2025/26



Source: HMRC tax receipts and National Insurance contributions for the UK, March 2026; ONS series CGBZ (gross operating surplus of corporations); IFS Tax Lab.

In 2022, when the government was considering various options for permanent reform of capital allowances, the Tax Foundation and the Centre for Policy Studies modelled various alternative scenarios (Clougherty et al. 2022). The findings suggested, first, that incremental improvements to the status quo ante (i.e. before the super-deduction) would boost long-run GDP by 0.1–0.3 per cent. It seems reasonable to offer this as a rough estimate

⁸ See Resolution Foundation (2023), which suggests that ‘[i]f UK business investment had matched the average of France, Germany and the US since 2008 our GDP would be nearly 4 per cent higher today, boosting wages by around £1,250 a year.’

of the *downside* of tightening capital allowances in earlier years, all else being equal. The same modelling suggested permanent full expensing for plant and machinery would boost long-run GDP by 0.9 per cent, but that this effect would be more than cancelled out by raising the headline rate of corporation tax to 25 per cent.

So what can we say, in the end, about the economic impact of changes to corporation tax since the financial crisis? Perhaps only that the changes in the headline rate probably had the effect you would expect – tax cuts positive, tax increases negative – but that changes to the corporation tax *base* softened those effects, in both directions.

Other tax distortions

We have already noted that while property taxes can be relatively non-distortionary, and therefore an efficient source of revenue, in practice, the UK's system of property taxes is quite problematic. This is important because according to OECD figures, Britain raises more as a percentage of GDP from property taxes than any other advanced economy.⁹ Problems with our property tax base are therefore magnified compared with other, similar countries.

9 According to the OECD, the UK raised 3.7 per cent of GDP from property taxes in 2024. Its nearest competitors were France (3.4 per cent), Luxembourg (3.3 per cent), and Belgium (3.2 per cent). The OECD average is below 2 per cent of GDP. (OECD Data Explorer, Global Revenue Statistics: Comparative tax revenues.)

Stamp duty land tax is a key part of the issue. Its effect is to deter transactions at the margin, so that there are fewer property sales and a less liquid market. Over time, that means that real estate becomes increasingly misallocated compared with what would happen in a free market. The property stock is not used efficiently, with many people who would, for example, otherwise downsize remaining in properties that are too big for their needs. And since there is a pretty durable link between transaction volume and construction, deterring transactions means that fewer new homes are built too (see Morton 2019). These effects will be particularly economically damaging in a market that already suffers regulatory supply constraints and mounting shortages.

It is unfortunate, then, that SDLT has become much more problematic over the last 30 years. In 1997, it was levied at a rate of 1 per cent on properties that sold for more than £60,000 (at that point, £60,000 was the price of a median home in England). Before the financial crisis, that threshold had risen to £125,000 and extra tax rates had been introduced (3 per cent on properties costing between £250,000 and £500,000; 4 per cent above that). By the early 2010s, we also had rates of 5 per cent over £1m and 7 per cent over £2m. Crucially, this was a so-called ‘slab’ system: once you crossed a threshold, you paid the relevant tax rate on the whole purchase price. Naturally, this had a big impact on transactions around those thresholds.

This changed in 2014 to a more rational system of progressive marginal tax rates, so that homebuyers paid 0 per

cent on the first £125,000; 2 per cent up to £250,000; 5 per cent up to £925,000; 10 per cent up to £1.5m; and 12 per cent beyond that. In 2016, the government introduced a 3 per cent surcharge on additional properties, and in 2021 another 2 per cent was introduced for non-UK resident buyers. From a top marginal tax rate of 1 per cent in 1997 to a potential 17 per cent today, SDLT has come to have a very pronounced effect on the top end of the property market in particular. But these effects cascade down. Modelling by the Taxpayers Alliance in 2022 suggested that abolishing SDLT and its Scottish equivalent would raise long-run GDP by 0.85 per cent. No one has put a precise number on the impact of changes to SDLT over the last 30 years, but it is unlikely a 1 per cent levy on property prices above the median would be anywhere near as damaging as what we have today.

SDLT's lesser-known twin, a 0.5 per cent stamp duty on share purchases, also has a negative effect on growth. Modelling by Oxera (2024) for the Centre for Policy Studies suggested that scrapping it could boost long-run GDP by 0.2–0.7 per cent. Earlier modelling using the same methodology had found a similar (but very slightly larger, at 0.24–0.78 per cent) effect in 2007 (Oxera 2007). So while the tax is undoubtedly a drag on growth, it has probably not had a particular effect since the financial crisis that it did not have before. To be clear, though: transaction taxes are bad taxes, and should play no role in a modern tax system.

Stamp duties provide close to a fifth of property tax revenue. Around a third comes from business rates. To quote

the Institute for Fiscal Studies' Mirrlees Review (Adams et al. 2011: 376): 'Business property is an input into the production process and, on efficiency grounds, should not be taxed.' (In the end, that review shied away from calling for abolition, on the grounds that it would 'provide a wind-fall gain to the owners of business land and property'.) A particular problem with business rates is that they don't just tax underlying site value, but also any improvements a business makes to it. In other words, it acts as a tax on, and deterrent to, business investment.

When Tata Steel spent £185m upgrading a blast furnace at Port Talbot, they famously saw their business rates bill rise by £400,000 per year (Pickard and Pooler 2016). A 2018 report by Corlett et al. suggested that simply replacing business rates with a revenue-neutral levy on underlying site values could boost long-run GDP by 0.4 per cent (Corlett et al. 2018).

It is worth noting, too, that the business rates multiplier (the tax rate) has risen quite significantly. In 2000/01, there was a single national multiplier in England set at 41.6p (the tax is levied per pound of assessed rental value). That peaked in 2025/26 at 55.5p (and 49.9p for small businesses), up from 46.2p in 2008/09. A new system with five different rates, ranging from 38.2p to 50.8p, came into effect this April. And over the years, a variety of different targeted 'reliefs' have come and gone. But none of this changes the fundamental point: that the burden of business rates has risen over time, and that when you combine that with changes to SDLT around half of Britain's property tax system (by revenue) has grown more

distortionary over the last quarter-century, as growth rates have slowed.

Council tax, the other half of property tax revenue, may be deeply unpopular and equally badly designed, but it is worth noting that business rates tax property six times more heavily than council tax does (this too is a potentially harmful economic distortion).¹⁰ And while critics will point out that business rates ultimately capitalise into lower rents, and are therefore incident on commercial landlords, around 45 per cent of commercial property is actually owner-occupied – so that landlord and tenant are one and the same.

There are additional taxes on business inputs. Other contributors to this collection note the impact of energy costs on business and growth: a large part of that cost comes from policy, and some of it from taxes. The Climate Change Levy, introduced in 2001, and the Carbon Price Support, brought in in 2013, both drove electricity prices much higher than they otherwise would have been. The Renewables Obligation and Feed-in Tariffs are also classed by the ONS as ‘taxes on production’, even if other parts of government regard them more as regulatory measures. Taxes on energy have surely had an impact on productivity and growth.

10 Author calculations based on council tax revenue as a percentage of the capital value of residential property, and business rates revenue as a percentage of the capital value of commercial property. Capital value figures taken from IPF Research, ‘The size and structure of the UK property market: end-2023’ (February 2025). Tax revenue figures for 2023/24 taken from the OBR. If anything, ‘six times’ is an underestimate given the extensive business tax reliefs that were in place that year.

The same fine line between taxes and regulatory costs is present when we think of labour too. Employment rights are clearly a regulatory measure. The minimum wage may be viewed similarly, but you could also argue that it acts as a tax on low-skilled labour, by raising its cost above the competitive market rate. In real terms, the minimum wage has risen by more than 60 per cent since 2000, to reach two-thirds of median earnings – one of the highest ‘bites’ in the developed world.¹¹ Employers’ national insurance contributions have gone up too, with the rate rising from 12.8 per cent before the financial crisis to 15 per cent now, and the threshold above which that rate applies falling by around 44 per cent in real terms. In the long run, the tax incidence falls on workers, in the form of lower wages. In the immediate aftermath of policy changes, however, there is a real and damaging impact on businesses and their profitability.

Whether you look at capital – as we did earlier – or land, labour and energy – as we have done here – it appears that taxes on business inputs have become more burdensome over time. That cannot be good for growth.

One final point. Tolley’s Tax Handbooks – the definitive guide to UK tax legislation – have expanded from around 7,250 pages in 1997 to more than 23,522 pages today (ICAEW 2026). That suggests a remarkable rise in tax complexity in recent years, which may increase the deadweight costs of the tax system. It is hard to see that

11 See OECD Data Explorer, Minimum relative to average wages of full-time workers.

effect in the World Bank's 'Time to comply' metric, which was pretty flat between 2006 and 2020, but it may show up in rising fixed costs (like accountancy) that weigh particularly heavily on small businesses.

An international perspective

The Tax Foundation's *International Tax Competitiveness Index* uses an intellectual framework similar to the one deployed in this chapter to rank the 38 tax systems of the OECD according to how supportive of economic growth they are. It is carefully calibrated to judge tax systems on their structure and neutrality, rather than on how large (or small) the overall tax burden is. Tax systems are ranked across five equally weighted categories: corporate taxes, income taxes, consumption taxes, property taxes and cross-border tax rules. Since 2014, the UK has ranked between 29th and 33rd in the overall rankings. (Its high point came when the 19 per cent headline corporation tax rate was briefly combined with the 'super-deduction' for investment in plant and machinery, which resulted in a much better corporate taxes ranking than usual.)

As of 2025, the UK sits in 32nd place out of 38 OECD countries (Mengden and Nieder 2025). A wide network of tax treaties means it scores well for cross-border tax rules (2nd place). It ranks 25th for income taxes (the third-highest top rate on dividends is a drag here) and 28th for corporate taxes (thanks to raising the headline rate to 25 per cent). The UK scores extremely badly on consumption taxes (33rd, thanks to a relatively high VAT rate and a

comparatively very narrow VAT base) and property taxes (37th, because revenues are more than twice as high, as a percentage of the capital stock, as the nearest competitor, and because the tax base is particularly distortionary).

Of course, since the UK's ranking has only moved within a narrow band, and in both directions, over the last decade or so, it is hard to use the *International Tax Competitiveness Index* to draw definitive conclusions about the role tax policy has played in the UK's growth slowdown. What we can do is simulate where the UK would sit in those rankings, had marginal tax rates on personal income remained at their pre-financial crisis lows, and had corporation tax not been hiked by a third after the pandemic. In that scenario, the UK would sit 14th in the corporate tax category, 11th in personal tax and in 26th place overall.¹²

Further improvements would rely on shifting to a broader-base, lower-rate consumption tax, and adopting a less distortionary system of property taxes. If Britain copied New Zealand's exemplary VAT, abolished stamp duty land tax, and based business rates on unimproved site values, it would rise to 27th in the property tax category, tie for 1st place in the consumption tax one and finish in 3rd place overall, behind only Latvia and Estonia. Overall, such a tax reform package would be strongly revenue-positive, providing revenue for broad-based tax cuts or significantly narrowing the budget deficit.

12 Author simulations using RStudio and the data at github.com/TaxFoundation/international-tax-competitiveness-index.

Conclusion

This chapter has surveyed developments in British taxation since 2000, in an effort to highlight policy changes – and underlying structural weaknesses – that have contributed to the country's economic stagnation since the financial crisis. It is clear that the tax burden has risen, and that the 'tax mix' has become less favourable to growth over the period in question. Both factors are likely to weigh on Britain's economic performance. However, the biggest shifts at this 'macro' level have come since the pandemic and likely played only a minor role in the lacklustre 2010s.

Spikes in top marginal tax rates after both the financial crisis and the pandemic look like missteps in retrospect. Future research could usefully examine in more detail the (negative) growth effect these tax increases likely had, particularly in an immediate post-recession context. It would also be helpful to study the economic consequences of fiscal drag – as many more people come to face higher marginal tax rates – and growing 'tax traps', which seem to be playing an increasingly significant role in affected households' economic decision-making. Analysis that disentangled the countervailing impacts of lower corporation tax rates and less generous capital allowances, followed by the precise opposite, might also aid our understanding of Britain's persistent shortfall in business investment and, indeed, its deindustrialisation.

While it is hard to say, at this point, precisely what effect the tax system has had on growth since the financial crisis, what we can say with some confidence is that there

are many aspects of the tax system that have long exerted a negative effect on GDP in Britain, including taxes that deter transactions, discourage corporate investment and raise costs for business. Reforms that eliminated these features of the tax system, and perhaps offset lower marginal tax rates on corporate and personal income with overhauled property and consumption taxes, would undoubtedly boost the long-run level of GDP. In the short term, that would translate to higher annual rates of economic growth.

References

- Adams, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Mirrlees, J., Myles, G. and Poterba, J. M. (2011) *Tax by Design: The Mirrlees Review*. Institute for Fiscal Studies (<https://ifs.org.uk/books/tax-design>).
- Advani, A. and Summers, A. (2020) Capital gains and UK inequality. Working Paper 2020/09, 23 May (https://prod.world.inequalitylab.org/uploads/2020/06/WorldInequalityLab_WP_2020.09_UK-capital-gains-inequality.pdf). World Inequality Database.
- Cao, L., Hosking, A., Kouparitsas, M., Mullaly, D., Rimmer, X., Shi, Q., Stark, W. and Wende, S. (2015) Understanding the economy-wide efficiency and incidence of major Australian taxes. Working Paper, 7 April, Australian Treasury (<https://treasury.gov.au/publication/understanding-the-economy-wide-efficiency-and-incidence-of-major-australian-taxes>).
- Carroll, R. and Viard, A. D. (2012) *Progressive Consumption Taxation: The X-Tax Revisited*. Washington, DC: The AEI Press

- (<https://www.aei.org/wp-content/uploads/2017/01/Progressive-Consumption-Taxation.pdf>).
- Clougherty, T., Pomerleau, K. and Bunn, D. (2022) After the super-deduction: assessing proposals for the reform of capital allowances. September, Centre for Policy Studies/Tax Foundation (<https://cps.org.uk/wp-content/uploads/2022/09/After-the-Super-Deduction-Assessing-Proposals-for-the-Reform-of-Capital-Allowances.pdf>).
- Corlett, A., Dixon, A., Humphrey, D. and von Thun, M. (2018) Replacing business rates: taxing land, not investment. September. Liberal Democrat Party (https://www.libdems.org.uk/fileadmin/groups/2_Federal_Party/Documents/Fundraising/Business_Rates.pdf).
- Delestre, I. and Waters, T. (2023) A deepening freeze: more adults than ever are paying higher-rate tax. IFS ReportR257. Institute for Fiscal Studies (<https://ifs.org.uk/sites/default/files/2023-05/A-deepening-freeze-more-adults-than-ever-are-paying-higher-rate-tax.pdf>).
- Delestre, I., Kopczuk, W., Miller, H. and Smith, K. (2022) Top income inequality and tax policy. 7 April, Institute for Fiscal Studies (<https://ifs.org.uk/books/top-income-inequality-and-tax-policy>).
- ICAEW (2026) Measuring the changing length of UK tax legislation. 23 March (<https://www.icaew.com/library/research-guides/length-of-uk-tax-legislation>).
- Johansson, Å., Heady, C., Arnold, J. M., Brys, B. and Vartia, L. (2008) Taxation and economic growth. Working Paper 620. OECD Economics Department (https://www.oecd.org/en/publications/taxation-and-economic-growth_241216205486.html).

- Joyce, R. and Xu, X. (2019) Options for cutting direct personal taxes and supporting low earners. 27 September. Institute for Fiscal Studies (<https://ifs.org.uk/books/options-cutting-direct-personal-taxes-and-supporting-low-earners>).
- Mengden, A. and Nieder, A. (2025) International Tax Competitiveness Index 2025. 20 October. Tax Foundation (<https://taxfoundation.org/research/all/global/2025-international-tax-competitiveness-index/>).
- Morton, A. (2019) Stamping down. 27 October. Centre for Policy Studies (<https://cps.org.uk/research/stamping-down/>).
- Neidle, D. (2023) Why the 25% corporation tax increase is a bad idea which I support. 12 February. Tax Policy Associates (<https://taxpolicy.org.uk/2023/02/12/25corptax/>).
- Pickard, J. and Pooler, M. (2016) Budget plan to exempt new machinery from rates bill. *Financial Times*, 29 February.
- Oxera (2007) Stamp duty: its impact and the benefits of its abolition. Prepared for ABI, City of London Corporation, IMA and London Stock Exchange, May (<https://www.oxera.com/wp-content/uploads/2018/07/Stamp-duty%E2%80%94its-impact-and-the-benefits-of-its-abolition-1.pdf-1.pdf>).
- Oxera (2024) Stamp duty on shares: analysis of its economic impact and the benefits of its abolition. Prepared for the Centre for Policy Studies, 26 February (<https://cps.org.uk/wp-content/uploads/2024/03/Oxera-Stamp-Duty-analysis-February-2024.pdf>).
- Resolution Foundation (2023) Ending stagnation: a new economic strategy for Britain. December, Resolution Foundation (<https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/12/Ending-stagnation-final-report.pdf>).

7 THE LABOUR MARKET

J. R. Shackleton

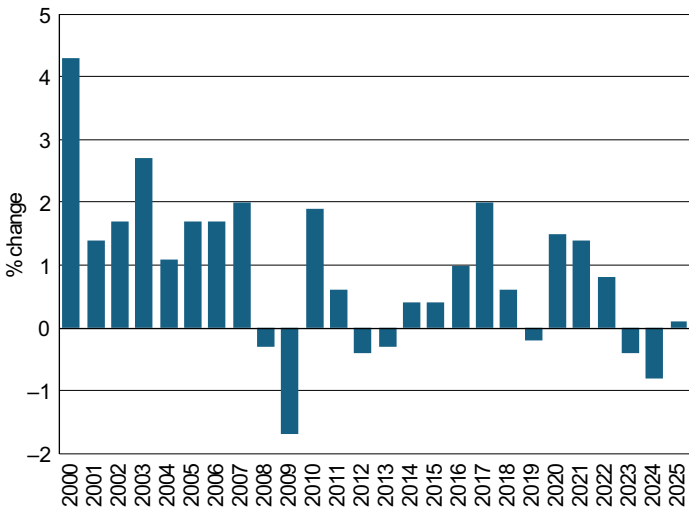
Introduction

There is no single or simple explanation of Britain's poor productivity performance – illustrated in Figure 26 – since the financial crisis of 2008/09. But at least part of the story is the impact which rapidly increasing regulation of the labour market, and regulation in other contingent areas, has had on businesses and workers.

This regulation has involved the Labour Party, the Conservative–Liberal Democrat Coalition and the later Conservative administrations. In the period before Brexit, the European Commission was also a significant player. Rather than seeking to blame any particular actors, however, it is worth observing that growing intervention in the labour market has had support across the political spectrum, from trade unions, EDI-minded business people, civil servants, 'progressive' pressure groups, the ever-increasing lanyard-wearing classes and human resource managers, all of whom seem to imagine that without the latest regulatory boondoggle greedy capitalist employers would exploit helpless workers. Indeed these groups have in some cases helped to introduce further distortions into

the jobs market in addition to those produced directly by government.

Figure 26 Annual percentage change in UK output per hour worked 2000–25



Source: ONS (<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/timeseries/lzvd/prdy>).

How labour markets work

Economists who spend time thinking about labour markets, however, tend to take a more sceptical view of such interventions. They start from a model which sees employment as a mutually beneficial transaction between employers and employees, both of whom have agency and can choose between alternatives. Mainstream economics envisages the optimal level of employment – that which

maximises well-being – as one where the wage rate paid is equal to the revenue produced by the marginal hour of work provided. If it costs £15 to employ an extra bar worker or fruit-picker for an hour and that hour brings in £40 of additional revenue, it's worth employing them. If it brings in only £10, it's not. At £15, the worker is just generating enough income to cover the cost of their hour's employment.

As for the employee, the £15 received is just sufficient to compensate for giving up an extra hour of 'leisure' (or work in the home, such as looking after children or elderly parents, or digging up their allotment). In an idealised competitive market, these two aspects of the wage are equalised, and all who want to supply work at the going rate are able to do so, while employers can obtain all the labour they want at this wage. Both parties are 'price takers' in the labour market. Profitable output is maximised and no individual or firm can be made better off without making someone, somewhere, worse off.¹

This is a static and hopelessly over-simplified picture. Labour markets never settle in one state: they are a dizzying kaleidoscope. Patterns of demand alter all the time as fashions and tastes mutate; so do production possibilities as technologies change. Entrepreneurs dream up new goods and services to offer, or puzzle out cheaper ways to produce existing commodities. Meanwhile the labour force constantly reshapes as people enter and leave work,

1 Of course, businesses wish they could pay less, while workers wish they could be paid more, but in this situation the two parties are voluntarily making the best deal they can.

retrain for new skills, partner up and have children, or change their preferences between types of job and between work and leisure.

In a dynamic context, an optimal labour market adapts instantaneously to change and moves seamlessly and costlessly from one quasi-equilibrium to another. Of course, no labour market there has ever been or ever will be can precisely match the static and dynamic conditions for optimality.

More realistically, well-functioning real-world labour markets are those which adjust rapidly to change. They reallocate people as quickly as possible if their previous employment dries up or new opportunities are presented. The process is rarely painless, but a labour market that does this is going to be associated over time with increasing labour productivity, rising wages and greater employee and consumer satisfaction.

Critics point to a number of real or potential 'market failures' which are held to justify government intervention. There may be insufficient competition between employers, giving them market power which they abuse; incomplete information or employer discrimination may prevent employees from getting jobs they would prefer; inadequate access to capital may limit access to training or education which would raise productivity and enhance their earning power.

There have long been forms of regulation which attempt to mitigate these problems. Some such interventions may indeed be justified. But increasingly government meddling in employment matters has not been

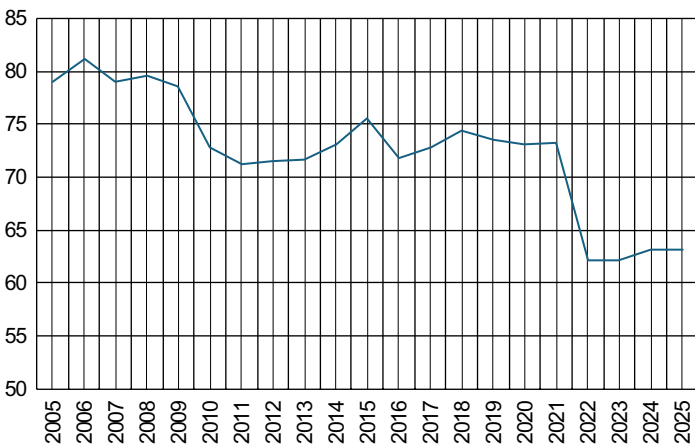
primarily motivated with offsetting objective weaknesses in markets. Rather it has been in pursuit of ‘social justice’, which can be used to justify any intervention, however cack-handed. Misconceived intervention can then give rise to government failures if it raises costs to employers and employees, and distorts incentives in such a way as to discourage or misallocate employment – with negative implications for productivity and the growth of national income.

Increased employment regulation

Before the financial crisis, it was often argued that the UK had got the balance between market forces and regulation of employment roughly right. The labour market reforms of Margaret Thatcher and John Major had greatly reduced the power of trade unions, which had blighted Britain’s economic performance in the 1960s and 70s. Government wage-setting both by prices and incomes policy, and in dozens of industry-based Wages Councils, was a thing of the past. While overt discrimination against women and ethnic minorities was now illegal, and unfair dismissal legislation limited the ability of employers to fire workers, regulation was nowhere near as strict as in most of continental Europe, where unemployment was typically higher and labour force participation sometimes much lower. Britain’s ‘flexible labour market’ was held up as a strength. Although a Labour government had been elected in 1997, it did little to reverse the Thatcher–Major reforms. While it did introduce a National Minimum Wage for the first

time, this was set relatively low, and a semi-independent Low Pay Commission, which made annual recommendations about the minimum wage, was enjoined to bear in mind the state of the economy and the labour market – so that in periods of economic downturn lower increases were set.

Figure 27 The Heritage Foundation's Labor Freedom Index 2000–25



Source: Heritage Foundation, Economic Freedom Index (<https://economicfreedom.heritage.org/pages/all-country-scores>).

However, following the financial crisis things began to change with a movement towards greater and greater interference by government in employment matters. This can be illustrated graphically in Figure 27, which plots the values of the Heritage Foundation's 'Labor Freedom Index' for a twenty-year period. The index reflects various

aspects of the legal and regulatory framework of employment, including the minimum wage, laws inhibiting dismissal, severance requirements and conditions on hiring.² A high value represents a relatively unregulated labour market, so the trend shown is of an almost continuous increase in regulation.

This only concentrates on a limited number of formal indicators. Nevertheless, it is a pointer to the way in which successive governments have placed greater regulatory constraints on the operation of the UK labour market. If this has adverse effects, it will make for slower adjustment to changes in the demand for and supply of labour – manifested in mismatch between job seekers and vacancies.

A cross-economy sign of this could be given by estimates of the UK's Beveridge curve, which shows the relationship between the unemployment rate and the vacancy rate. There is some evidence (Hobijn and Sahin 2013; Cepparulo 2024) that the curve may have shifted to the right since the financial crisis, meaning that a higher unemployment rate is now associated with a given vacancy rate, a greater mismatch between workers and the jobs potentially available to them.

The increase in employment regulation has many dimensions and comes to us in different ways.

2 The index is derived from six quantitative factors: ratio of minimum wage to the average value added per worker, hindrance to hiring additional workers, rigidity of hours, difficulty of firing redundant employees, legally mandated notice period, and mandatory severance pay. It is based on data collected in connection with the World Bank's 'Doing Business' study.

New domestic legislation

A complete listing of new employment laws – some of which resulted from discrete Acts of Parliament while others were based on delegated powers under earlier legislation – would take a great deal of space. A few headline examples of the former include the Pensions Act 2008 (implemented in 2012, this required employers to offer enrolment in private pensions and make a contribution), the Equality Act 2010 (which introduced the term ‘protected characteristics’ and strengthened equal pay rules), the Children and Families Act 2014 (introducing shared parental leave), the National Minimum Wage (Amendment) Act 2016 (introducing the National Living Wage) and the Employment Relations (Flexible Working) Act 2023 (which strengthened the right to request flexible working). The Employment Rights Act came into law at the end of 2025: it is likely to have greater implications than any other single piece of employment legislation, but parts of it do not come into operation until 2027 and its consequences will take some years to work through.

Examples of the use of delegated ministerial powers include the Blacklist Regulations 2010 (which prohibited blacklisting of construction trade unionists), the Agency Workers Regulations 2010 (which gave agency workers the right to the same conditions as permanent workers after 12 weeks), the requirement for all businesses and private institutions employing 250 people to publish sex pay gap statistics under Equality Act regulations and the National Minimum Wage Regulations (which

allowed Sajid Javid to raise the target for the National Living Wage to 66 per cent of median hourly earnings). Some laws have been piggy-backed on other legislation; for example the Apprenticeship Levy (which obliges larger employers to pay a levy based on their wage bill) was brought in via the Finance Act 2016, and subsequent delegated powers.

Court or tribunal judgements

Many other extensions of employment law have come through interpretations of statutes or common law judgements in employment tribunals, appellate courts and higher courts. These judgements can stretch legislation into areas which were not necessarily intended and probably never discussed during the passage of Acts through Parliament. Unlike planned changes in employment legislation, tribunal judgements are never costed even though their consequences can be extremely expensive to employers.

Examples include the case of Uber drivers who were held to be ‘workers’ rather than self-employed contractors, and thus entitled to a number of rights such as minimum wages, holiday pay and rest breaks; equal pay decisions which focused on ‘work of equal value’ at Asda, Next and Birmingham City Council (where judgements have contributed to a semi-permanent financial crisis and continuing industrial action); minimum wage adjudications requiring employers to pay for on-call workers, clothes requirements and travel between clients; widening the

definition of protected characteristics to include a variety of quasi-religious beliefs and categorising loosely defined mental health problems and obesity as forms of disability to which employers must adapt.

Occupational regulation

The instances mentioned so far are measures which affect businesses and other organisations right across the economy. But in addition there is occupational regulation, typically through licensing of individuals. UK governments determine not only the status of historically regulated professions such as medicine and law, but who can be everything from a gas engineer to an architect to a race-horse trainer to an art therapist.

Following the financial crisis there has been a considerable expansion of roles which require some form of certification including in some cases formal licensing. But there are also new regulatory requirements for social workers, nursery workers, various paramedical professions, security guards, building workers, CCTV operators and train drivers. The result is that now some 22 per cent of the workforce are believed to work in a licensed profession (Koumenta 2024). Fifteen years ago the estimate was only 13–14 per cent (Humphris et al. 2010; Forth et al. 2011).

Occupational regulation raises costs (and may restrict access) to the public. Because it usually involves significant costs to individuals (fees, exams, continuing training), unnecessarily extensive regulation may indirectly

act to exclude people from jobs for which they would otherwise be suited.³

Other labour market impacts of government policy

In addition to direct regulation of employment, many other aspects of government intervention have implications for the functioning of the labour market. Changes in a variety of policy areas since the financial crisis will have impacted on jobs and pay.

Taxation and benefits

The effects of taxation on the workings of the economy is a subject in itself (and is discussed in the previous chapter), but there are some points worth making here. All taxation of earnings (income tax and national insurance) creates a gap between what employers pay and what workers receive in disposable income and complicates the simple model of the labour market sketched earlier.

Tax and NI contributions have fluctuated since the financial crisis but the overall percentage tax take has increased. In recent years this has partly been the effect

3 As Koumenta (2024: 12) points out, once an occupation is licensed, there is nothing to stop its gatekeepers ‘regularly introducing tougher entry restrictions ... lowering the pass rate on licensing exams and lowering the number of available places in educational institutions’. This will reduce the number of applicants (especially those from disadvantaged backgrounds) and increases the economic rent obtained by incumbents.

of failing to raise tax thresholds in line with inflation. A particularly egregious example is the ‘£100k trap’. From 2010, as annual earning rises above £100,000 the personal allowance (on which no tax is chargeable) begins to be reduced. This means that the marginal rate of income tax rises from 40 to 62 per cent – more if you are repaying a student loan – up to the point where all the personal allowance is exhausted (at £125,140). The point is that the nominal threshold has not changed since it was introduced, despite more than a decade and a half of inflation. Whereas only around 600,000 were caught in the trap in 2010/11, in 2025/26 the figure appears to have risen to just short of 1.5 million.

Sharp increases of this kind in the marginal tax rate must surely have an impact, and there is some evidence, for example, that there is ‘bunching’ at incomes just below £100,000 (Joyce and Xu 2019). This may involve people under-reporting incomes, or retiming bonuses, or increasing salary sacrifice into pensions. However, it may also affect labour market behaviour such as reducing hours worked or turning down promotions.⁴

If effective marginal tax rates on higher earners may affect labour market behaviour, this is also true of the steep withdrawal taper faced by people on income-related benefits. The introduction of Universal Credit from 2010 onwards made some improvements to the incentives

4 A related issue is the effect of new limits (introduced in 2016) on free-of-tax pension contributions. According to a BMA survey (Brady 2019), this caused some senior hospital doctors and GPs to reduce hours or retire early.

facing the unemployed and low earners, but they are still problematic. When you add together the effects of Universal Credit withdrawal, tax and NI contributions, around two-thirds of previously unemployed workers would face a ‘participation tax rate’ of more than 50 per cent. Two-thirds of those already working part-time would face a ‘tax rate’ of more than 60 per cent if they increased their hours, with 9 per cent losing at least 70 per cent of each extra £ earned (Ray-Chaudhuri and Waters 2024). With entering work or increasing hours in low-paid jobs being ‘taxed’ so heavily, it is not surprising that large numbers of potential workers are tempted to remain on benefits. If the financial benefits of taking jobs are limited, they need a degree of chivvying. Although pressure on claimants to take jobs appears to have increased under the Coalition from 2010 to 2015, this has been relaxed since – especially during and after Covid.

Higher education policy

Since the financial crisis, the numbers of home students in higher education have continued to rise: from 1.58 million in 2008/09 to 1.76 million in 2024/25. From 2015/16 onwards, there were no longer limits on student numbers (except for expensive medicine and dentistry courses). The fees which universities were allowed to charge failed to keep pace with inflation, and so they reacted by increasing intake to share overheads among larger student numbers – including ever-growing numbers of foreign students, whose fees were not fixed, and many of whom

stayed behind after graduation to swell the numbers of graduates seeking employment.

Critics argue that universities behaved irresponsibly by dropping entry standards and taking students onto low-cost courses which could easily scale but which did little to enhance employability. Whatever the truth of this claim, the rapid expansion of higher education has meant that the returns to education have declined – to the point where an IFS study (Britton et al. 2020) suggested that 20 per cent of graduates would be better off over their lifetime if they had not been to university. Poor returns reflect the finding of Vecchia et al. (2023) that only just under half of employed graduates are in ‘graduate jobs’ in the field for which they studied, while 30 per cent of graduates work in non-graduate jobs. The authors of this study conclude that mismatch on this scale indicates ‘a misallocation of resources that can contribute to the UK productivity slowdown’.

Training and apprenticeships

Given the problems with higher education, it is often argued that we should place more emphasis on offering apprenticeships to young people. There is certainly a demand for apprenticeships; it is suggested (Wolf 2025) that there are three applications for every place among those about to leave school. And advocates point to skill shortages which employers had been mitigating by importing workers, something which should be ended, or at least much reduced.

The Conservatives introduced a new funding mechanism in 2017: the Apprenticeship Levy. This was in effect a 0.5 per cent payroll tax on employers with a wage bill of at least £3m. Organisations could claim money back if they committed to providing apprenticeships in a standard, nationally determined framework which had several different levels.

After the levy began, there was an initial crash in the number of apprenticeship starts. The new scheme, which replaced older direct funding from government agencies, was said to be too bureaucratic and complicated, and was widely criticised. Some employers felt that an apprenticeship structure did not fit their training needs. Particularly in fast-changing technology sectors, the classic apprenticeship model involving mastering a set of known and established skills may seem outdated.

However, starts began to pick up as organisations began to understand they could use the funding system to their advantage. But, as frequently happens, unintended consequences flow from apparently well-intentioned government schemes. Ministers had said they wanted to improve the skill levels of workers. Many big employers, including many in the public sector, took them at their word and started to use the scheme to support higher level ‘apprenticeships’ for managers and other relatively senior employees. By 2024/25, more than half of all new apprentices were aged 25 and over; 16 per cent of them were already graduates when they began their apprenticeships: 4 per cent even had masters degrees. These Advanced Apprenticeships – for operations managers,

project managers, HR consultants and so forth – were crowding out lower-level apprenticeships for school-leavers. Meanwhile there were continuing shortages in construction trades, engineering and digital skills.

Following mounting criticism (including that in Alison Wolf's scathing 2025 report for the Social Market Foundation), some changes have been made, including removing funding for older apprentices on masters-equivalent programmes and redirecting it to younger people, while rebadging the scheme as a 'Growth and Skills Levy', thus giving employers the flexibility to offer shorter skills-based modular training. But some would argue the scheme should be scrapped in its entirety.

Housing policy

Since the financial crisis, housing construction – increasingly bogged down by energy and environmental mandates – has not kept pace with the increase in population resulting from substantial net migration. The private rented sector has become much more tightly regulated since around 2015 with increased tenant rights and landlord mandates, while mortgage costs have risen. The consequent rising costs and reduced availability of accommodation have discouraged mobility between areas. The number of people aged 25–34 moving home and starting a new job fell from 30,000 a year in 1997 to 18,000 in 2018 (Bell 2019).

A particular issue has been the decline in the mobility of young graduates. Those who graduate in regions outside London and the Southeast and remain there after

graduation are more likely to be in non-graduate jobs and earning less than they could elsewhere. This implies that they are less productive than they could be if freer to move in search of better jobs.

Informal pressures

Since the financial crash, Labour and Conservative governments have also exerted pressure to alter labour market outcomes through changing reporting requirements for organisations in both the public and private sectors. An example is high-end pay. In the public sector there is a threshold of £174,000 pa, beyond which any pay level must be approved by the Chief Secretary to the Treasury.

In the private sector, large quoted companies have since 2019 been required to disclose the ratio between CEO pay and UK employee pay, and to explain changes and how they relate to company pay policy. This is justified as increasing transparency, as a service to shareholders, but it is also a way of putting pressure on companies to control top pay. Similar pressure is applied to the higher education sector, where Office for Students ‘guidance’ requires the publication of vice-chancellor remuneration and enjoins justification for high levels of pay in terms of ‘value’ for money.

Government agencies have also increasingly imposed Equality, Diversity and Inclusion (EDI) requirements on business. Under Financial Conduct Authority rules, for example, listed companies must report on board diversity against targets such as 40 per cent women on boards, at

least one senior board position to be held by a woman and at least one board member from an ethnic minority. Failure to meet targets requires a published explanation and it is expected that companies will commit to remedying the deficiency. These targets are not motivated by productivity criteria, despite blather from politicians.

The rise of the HR culture

The increase in the range and extent of employment regulation – and the concomitant penalties for non-compliance – has meant that organisations have had to put much more emphasis on ensuring that they don't fall foul of the law. Hence we have seen a proliferation of people whose jobs largely consist of ensuring that employees stick with-in rules which the government has imposed and otherwise add little directly to output of goods and services. We have seen this in the financial services sector, but a more relevant issue here is the expansion of employment in 'human resource' jobs. A widely disseminated estimate was produced by the Chartered Institute of Personnel and Development in 2020.⁵ They calculated that 562,000 were employed in HR-related occupations in 2019, up from 438,000 in 2011 – an increase of 28 per cent in eight years. The numbers have probably risen further; an indicator is the membership of CIPD (the body for HR professionals), which has grown by 7 per cent since 2019.

5 Employment in HR soars over past decade, 6 July 2020, CIPD (<https://www.cipd.org/uk/views-and-insights/thought-leadership/cipd-voice/employment-hr-soars-past-decade/>).

While HR professionals may perform useful work, their increasing significance within organisations may have led to compliance which goes beyond what was intended by legislators. There may be a culture of risk minimisation which in effect ‘gold-plates’ government regulation, with, for instance, extensive compulsory training on unconscious bias for all staff, changes to recruitment and elaborate promotion procedures which minimise (though they can never completely eliminate) the risk of contravening legislation on discrimination, equal pay or other employment issues. This is likely to raise costs beyond the levels anticipated in the impact assessments conducted when regulation was introduced.⁶

Impatience with the excesses of the HR function within businesses has frequently bubbled over into public discussion. An extreme example was the recent decision by Ryan Breslow, the young CEO of the US company Bolt, to dispense with his entire HR team – which in his view was ‘creating problems that didn’t exist’ and that disappeared when he let them go (see Fore 2026). It is difficult to imagine a UK CEO daring to do anything similar here, with the vastly greater degree of regulation in our labour market, despite the temptation.

6 For example, the 2024 impact assessment for making the right to request flexible work a default estimated its cost per application at just over £30 – the cost of half an hour’s time for an HR manager to process the claim. This ignores, for instance, the cost of the time for consulting all relevant parties and the costs of rearranging work schedules (including those for other employees who might be affected). See Shackleton and Lesh (2024).

Gumming up the works: the impact of regulation

The increasing formal and informal restrictions on the operation of the labour market outlined in this chapter have the effect of gumming up the works: delaying adjustment by businesses to changing economic opportunities and slowing down the rate of productivity improvement.

Wages

Take wages. The wage rate, like other prices, acts as a signal. To employers, it indicates how much it costs to employ a particular type of worker. When it goes up sharply, it encourages the search for alternatives: different ways of employing workers (think use of temporary workers, zero hours contracts, outsourcing or transfer of production abroad) or substitution of machines and AI for employees. To potential workers: a sharp rise in the wage in a particular sector or area encourages an increase in applicants, geographical or occupational mobility, retraining for new skill demands.

Yet wages are becoming a less effective signal as government intervention increases. An obvious case is the national minimum/living wage. Big increases in the wage floor – with the NLW now linked arbitrarily and indefinitely to two-thirds of median hourly mean earnings – mean that by April 2025 2.02 million – 6.6 per cent of all payrolled employees – were paid at the relevant minimum wage rate (Low Pay Commission 2025). In addition many employers deliberately set pay at a little

more than the minimum; the major supermarkets (e.g. Tesco, Sainsbury's, Asda, Lidl) pay between 30p and 50p per hour more than the law requires.⁷ Altogether in 2024 2.3 million (7.6 per cent of employees) were paid up to 50p more, with a total of 6.07 million (19.9 per cent) paid up to £1 more. Most of these employers will semi-automatically raise their pay rate in line with changes in the minimum wage. So in effect the government sets pay for up to 1 in 5 of employees.

Having the same wage rate in many different sectors in many different parts of the country inevitably produces problems as it creates a mismatch between demand and supply. For instance in some parts of the country the NLW is very close to the median hourly wage rate. In Wigan, for example, the minimum wage is now over 80 per cent of the local median wage.⁸ This upsets relativities and compresses wage distributions, making it more difficult to recruit first-line managers. Unemployment in these areas tends to be high, especially for young unskilled workers, but the wage (and other costs such as employer NICs and pension contributions) for entry level jobs in bars, catering and shops is too high to make it worthwhile employing people.

There are few low-paid workers in the public sector, however. There are just over 6 million public sector

7 This is partly to afford compliance problems, as there are many pernicky requirements for what counts as working time, for example, and partly for reputational reasons, to signify that they are 'good' employers.

8 Uplift to minimum wage brings wage floor closer to typical earnings in Doncaster and Wigan (<https://www.centreforcities.org/press/uplift-to-minimum-wage-brings-wage-floor-closer-to-typical-earnings-in-doncaster-and-wigan/>).

workers, most of whose pay is set directly or indirectly by the government. Around 2.8 million of these fall under Pay Review Bodies. In the public sector, unions are strong (with 50 per cent unionised, as against less than 12 per cent in the private sector).⁹ Pay settlements rarely reflect the outcome of supply and demand in the conventional sense. And at the high end of public sector employment, all high salaries need to be personally approved by the Chief Secretary and will be constrained by the political optics rather than market forces. This is even more true of the remuneration of Parliamentarians. Political considerations dictate that the salaries of MPs and ministers are much lower than their continental counterparts and mean that few people with established expertise, good career prospects and a family to support are willing to take the gamble on standing for the House of Commons. Hence the place is full of ex-SpAds and political obsessives.

Another way in which pay is determined outside market considerations is the increasing acceptance by employment tribunals and higher courts of reference to ‘work of equal value’ in equal pay claims. In the Asda and Next cases (Shackleton 2024), for example, the work done by largely female supermarket workers and largely male depot workers is held to be of equal value and therefore they should be paid the same. This is because the Equality Act 2010 says that equal value relates to the ‘effort, skill

9 A high proportion of private sector unionists are in previously nationalised industries. As the train franchises – where unionisation is probably of the order of 60–70 per cent – are gradually being reabsorbed into the public sector, the proportions in each sector will change.

and decision-making' associated with a job. This ignores the way in which a free market would also reflect other factors which help determine people's choice of jobs. If working in a cold, isolated warehouse or depot is less attractive than a warm, centrally located supermarket, the warehouse job needs to have what economists call a 'compensating differential' in higher pay or otherwise it will find it difficult to recruit workers while supermarkets will have queues for available jobs. More generally, the 'equal value' argument undermines attempts by employers to recruit shortage workers by raising pay. Where they attempt to do this, they are constrained by economically irrelevant imperatives to recruit a balanced mix of men and women, something which involves higher costs and itself may lead to discrimination claims.

This all inhibits productivity as wages determined by government fiat rather than market forces no longer put out a clear signal to employers and potential employees.

Adjustment processes

Even where wages are free to adjust and send out appropriate signals, government intervention in the labour market and other aspects of the economy may slow the process of adjustment to those signals.

From the employers' side, unfair dismissal law and TUPE¹⁰ regulations act as an inhibitor to major changes

10 Transfer of Undertakings (Protection of Employment) regulations protect the employment rights of employees when ownership of the part of the organisation they work for changes.

such as large-scale redundancies and transfer of company ownership. In the period since the financial crisis tribunal judgements emphasising the need for formal processes and protection for a wider range of beliefs have increased the risks to an employer of dismissing a worker. The changing demographics of the workforce in the last twenty years – more women, more ethnic minorities – has meant that more unfair dismissal cases are also accompanied by discrimination claims, for which there has for many years been no upper limit to compensation.

The increasing risks associated with dismissing workers – where even clear cases of fair dismissal can be invalidated if the process is accidentally mishandled¹¹ – may mean that inadequate performance is tolerated too often. This problem is likely to get worse as the period before unfair dismissal legislation kicks in is reduced from two years to six months in the Employment Rights Act, as it reduces the window for assessing performance of new workers before job protection begins.

Perhaps more importantly, the legislation inhibits employers from dismissing workers in an economic downturn, motivating the ‘labour hoarding’ which some

11 A classic case involved a hotel chef who went berserk after a few drinks and attacked a policeman sent to the hotel to restrain him. The chef bit the officer and spat blood at him. He was jailed for 18 months and was dismissed from his job while in prison. But his employer had failed to follow the correct procedure and he received £11,000 compensation. Head chef sacked while in prison for biting police officer wins £11k payout (<https://www.telegraph.co.uk/news/uknews/law-and-order/11707382/Head-chef-sacked-while-in-prison-for-biting-police-officer-wins-11k-payout.html>).

commentators have seen as a factor in low productivity levels in the UK. The contrast is drawn with the US, where a downturn sees proportionately many more being laid off. The evidence suggests, however, that recovery in employment is quicker in the US as employers are willing to take people on more quickly in an upturn – and are able to pick and choose who they take back. Labour is reallocated more rapidly, the duration of unemployment is typically shorter, and productivity tends to grow faster as the process of creative destruction is less inhibited than in the UK and other European economies (Caballero et al. 2013).¹²

On the side of employees, finding a new job on entering or re-entering the labour market has arguably been made more difficult as a result of trends since the financial crisis. The worsening housing shortage has made moving for work – geographical mobility – more difficult, while the growth in licensing has made entering intermediate level occupational mobility increasingly problematic too. Getting into jobs such as care manager, nursing associate or security manager is now significantly more difficult. Even where qualifications are not required by regulation, there has been a growth of ‘credentialism’: partly as a result of the excess supply of graduates, employers now require a degree qualification for a job which a few years ago was done quite adequately by people without degrees. People

12 However, authors such as Davis and Haltiwanger (2014) suggest that the US advantage in this respect fell after the 1990s as a result of reduced labour market flows, which were partly the result of increasing employment regulation and exceptions to the ‘contract at will’ which formerly dominated.

with experience and skills but with no formal qualifications find it difficult to find work except at the most basic level.

This all means that there is a growing mismatch in the labour market, with many workers operating at levels below their potential. Reduced mobility opportunities are reflected in fewer job moves (Brewer and Murphy 2023). Movement between jobs is the most effective way of raising wages at the individual level, and from the viewpoint of the economy as a whole such reallocation of labour raises productivity. That people are not moving as frequently is another sign of growing dysfunctionality in the labour market.

Mandates, uncertainty and the business of business

A final way in which government employment regulation creates problems for the effective functioning of the jobs market is the proliferation of mandates such as parental leave, ‘reasonable adjustment’ for the needs of people with disabilities, and the right to request flexible working. All three of these mandates introduce greater uncertainty into employment relations. Women on maternity leave do not have to give a clear indication of when they will return, which creates planning problems and costs when temporary cover is hired or existing colleagues are asked to ‘act up’. What is reasonable adjustment for disability is often difficult to discern, particularly when someone is presenting with one of an increasing range of mental health issues – and the costs of getting it wrong and

ending up in a tribunal can be very significant. The consequences of flexible working arrangements, now hard to refuse, are difficult to discern in advance: the long-term effects on productivity of widespread working from home since Covid or the embryonic movement towards a four-day week cannot be known in advance, but may not all be positive. It is not surprising that defensive HR practices, which raise costs, are common.

The government pressure for diversity in hiring practices, or on companies to reduce pay gaps between the sexes (and soon, probably, ethnic pay gaps) also have potential to undermine performance if they lead to policies which elevate box-ticking over the bottom line. For example, the need to have some board members appointed on the basis of sex or ethnicity rather than simply skills and experience can present problems, and there is no guarantee that the diversity created will have a positive effect on performance.¹³ And attempts to manipulate half-understood company pay gaps by altering recruitment practices or by restructuring to outsource low-paid female work could go badly wrong.

There is a more general case for saying that attempts to turn capitalist enterprises into vectors for social justice are unhelpful if we sincerely want to raise productivity and boost growth. The business of business is business, and greater emphasis on this truism might help us to ungum the labour market.

13 Indeed, there is some evidence that 'quotas for women on corporate boards have mainly decreased company performance' (Yu and Madison 2021: 377).

References

- Bell, T. (2019) Britain has become a less mobile nation – why? Resolution Foundation (<https://www.resolutionfoundation.org/comment/britain-has-become-a-less-mobile-nation-why/>).
- Brady, D. (2019) Nearly half of GPs reduce their hours over pension changes. *Public Finance* (<https://www.publicfinance.co.uk/news/2019/08/nearly-half-gps-reduce-their-hours-over-pension-changes>).
- Brewer, M. and Murphy, L. (2023) From safety net to springboard: designing an unemployment insurance scheme to protect living standards and boost economic dynamism. Resolution Foundation (<https://economy2030.resolutionfoundation.org/wp-content/uploads/2023/09/From-safety-net-to-springboard.pdf>).
- Britton, J., Dearden, L., Waltmann, B. and van der Erve, L. (2020) The impact of undergraduate degrees on lifetime earnings. Report, Graduate Outcomes, Institute for Fiscal Studies (<https://ifs.org.uk/publications/impact-undergraduate-degrees-lifetime-earnings>).
- Caballero, R. J., Cowan, K. N., Engel, E. M. R. A. and Micco, A. (2013) Effective labor regulation and microeconomic flexibility. *Journal of Development Economics* 101: 92–104.
- Cepparulo, B. (2024) The UK Beveridge Curve in times of Covid (https://www.researchgate.net/publication/383025150_The_UK_Beveridge_Curve_in_times_of_Covid).
- Davis, S. J. and Haltiwanger, J. (2014) Labor market fluidity and economic performance. Working Paper 20479. National Bureau of Economic Research.

- Hobijn, B. and Sahin, A. (2013) Beveridge curve shifts across countries since the great recession. *IMF Economic Review* 61(4): 566–600.
- Humphris, A., Kleiner, M. and Koumenta, M. (2011) How does government regulate occupations in the UK and the US? Issues and policy implications. In *Employment in the Lean Years: Policy and Prospects for the Next Decade* (ed. D. Marsden). Oxford University Press.
- Fore, P. (2026) Bolt CEO says he let go of his entire HR team for creating problems that didn't exist: 'Those problems disappeared when I let them go'. *Fortune* (<https://fortune.com/2026/05/19/bolt-ceo-ryan-breslow-cut-hr-department-causing-problems-fintech-startup-turn-around/>).
- Forth, J., Bryson, A., Humphris, A., Koumenta, M. and Kleiner, M. (2011) A review of occupational regulation and its impact. UKCES Evidence Report 40, UK Commission for Employment and Skills, London.
- Joyce, R. and Xu, X. (2019) Options for cutting direct personal taxes and supporting low earners. In *The IFS Green Budget* (https://ifs.org.uk/sites/default/files/output_url_files/GB_2019-Chapter-8-Options-for-cutting-direct-personal-taxes.pdf).
- Koumenta, M. (2024) Occupational regulation and social mobility in the UK. Social Mobility Commission. (<https://socialmobility.independent-commission.on.uk/publication/occupational-regulation-and-social-mobility-in-the-uk-2/>).
- Low Pay Commission (2025) National Minimum Wage. Low Pay Commission Report 2025 (<https://assets.publishing.service>

- [.gov.uk/media/69b941c526909a1423961249/E03534727_NM_W_LPC_Report_2025_Accessible_Corr_Slip.pdf](https://www.gov.uk/media/69b941c526909a1423961249/E03534727_NM_W_LPC_Report_2025_Accessible_Corr_Slip.pdf)).
- Ray-Chaudhuri, S. and Waters, T. (2024) Universal credit: incomes, incentives and the remaining roll-out. IFS Report R322, Institute for Fiscal Studies (<https://ifs.org.uk/sites/default/files/2024-06/Universal-Credit-Income-incentives-and-remaining-rollout-Institute-for-Fiscal-Studies-Report.pdf>).
- Shackleton, J. R. (2024) Next equal pay judgement is no win for workers. CapX (<https://capx.co/next-equal-pay-judgement-is-no-win-for-workers>).
- Shackleton, J. R. and Lesh, M. (2024) The Employment Rights Bill: what the government's impact assessment misses. Institute of Economic Affairs (<https://iea.org.uk/the-employment-rights-bill-what-the-governments-impact-assessment-misses/>).
- Vecchia, M., Robinson, C., Savic, M. and Romiti, M. (2023) Vertical and horizontal mismatch in the UK: are graduates' skills a good fit for their jobs? National Institute of Economic and Social Research Discussion Paper 548.
- Wolf, A. (2025) Saving apprenticeships: a policy primer. Social Market Foundation.
- Yu, J. J. and Madison, G. (2021) Gender quotas and company performance: a systematic review. *Economic Affairs* 41(3): 377–90.

8 AUSTERITY AND BREXIT

Julian Jessop

Introduction

This chapter looks at two common explanations for the poor performance of the UK economy over many years. The first is the period of fiscal ‘austerity’ that began under the Conservative-led Coalition government in 2010. The second is the impact of the vote to leave the European Union in 2016, culminating in Brexit.

This chapter will start with some different definitions of austerity and see how they measure up against the actual data. It will then review the ways in which austerity might have hindered, or helped, economic growth and productivity.

The second part of the chapter focuses on Brexit. The result of the 2016 referendum was itself an economic and financial shock, so it makes sense to start the clock from then. There were clearly some negative effects and upfront costs, but there have also been some positives with the potential for the benefits to grow over time.

One common theme is the difficulty of identifying the counterfactual. In other words, what would have happened if the UK government had taken a different fiscal stance after 2010, or if the UK public had voted to remain in the EU in 2016?

However, there is little hard evidence that either austerity or Brexit was a major factor contributing to the UK's poor economic performance. In part this is because neither shock was as large as many assume.

Defining austerity

Austerity seems to mean different things to different people, but it is generally seen as a 'bad thing'. One dictionary definition is 'a situation in which people's living standards are reduced because of economic difficulties.'

In public debates, the austerity of the 2010s is often characterised as 'savage cuts' in public spending which weakened the foundations of the economy and of society.

A more objective definition would be 'policies designed to reduce budget deficits through spending cuts, tax rises, or both'. In more technical terms, austerity is 'a discretionary tightening of fiscal policy with the aim of reducing the budget deficit'.

Viewed this way, austerity is simply a means to improve the health of the public finances, reducing the risks of a financial crisis and paving the way for more sustainable growth in future. It may also form part of a broader strategy to reduce the size of the state.

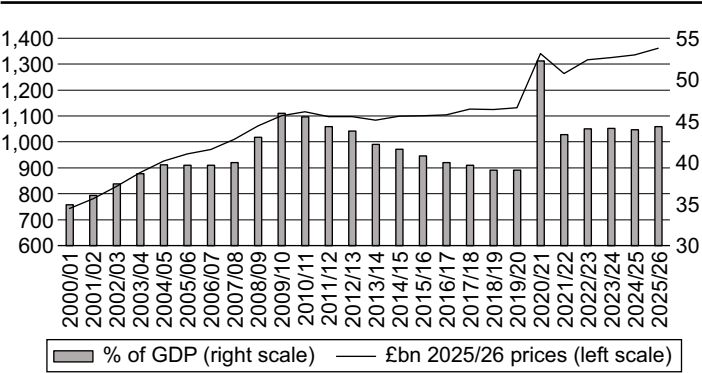
What do the numbers say?

The Office for Budget Responsibility publishes a helpful databank which tracks the public finances over time (OBR 2026).

The first point to note is that public spending continued to increase every year throughout the 2010s, at least in cash terms. Total managed expenditure (TME) was £743bn in 2010/11. By 2019/20, the last year before the Covid pandemic, it had risen to £885bn.

Of course, these numbers do not take account of the impact of inflation. However, even in real terms, total spending was little changed between 2010/11 and 2019/20, falling slightly in the first half of this period and then rising slightly in the second. This was still a large reduction relative to the plans inherited from the previous Labour government, but not in absolute terms.

Figure 28 UK total managed expenditure in real terms and as a percentage of GDP



Source: Office for Budget Responsibility.

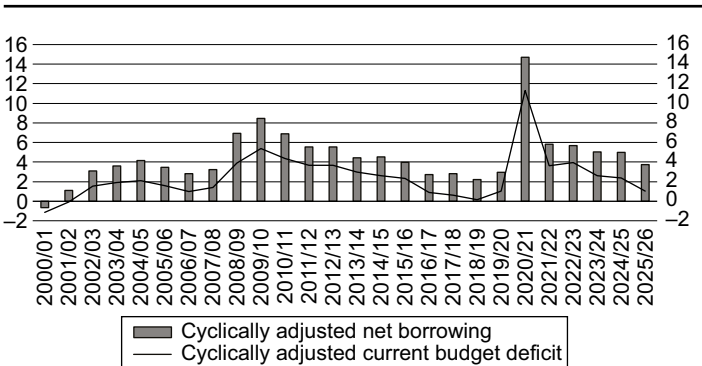
With spending held steady while the economy was growing, public spending as a share of GDP fell from 45.5 per cent in 2010/11 to a pre-Covid low of 39.1 per cent in 2019/20. However, this fall simply returned the ratio of

spending to GDP to the levels seen before the Global Financial Crisis (GFC) of 2007/08.

On the revenue side, the tax burden was relatively stable throughout the 2010s. The upshot is that the annual budget deficit was brought down from 8.7 per cent of GDP in 2010/11 to 2.6 per cent of GDP in 2019/20 and this was mainly achieved via restraint on the spending side.

The data, at least in aggregate, therefore do not support the claim that austerity resulted in ‘savage cuts’ in public spending. It is more accurate to describe this in neutral terms as a period of gradual tightening in fiscal policy.

**Figure 29 UK cyclically adjusted borrowing
as a percentage of GDP**



Source: Office for Budget Responsibility.

This is reflected in the steady decline in cyclically adjusted borrowing, which strips out the temporary effects of the economic cycle. In 2009/10, the cyclically adjusted deficit was 8.4 per cent of GDP, which was surely unsustainable. By 2018/19 this had been brought down to 2.2 per cent.

The cyclically adjusted current budget deficit was reduced from 5.4 per cent of GDP in 2009/10 to just 0.1 per cent in 2018/19. This meant that day-to-day spending was largely covered by tax revenues, which was a much sounder fiscal position.

Deficits versus debt

Some still argue that austerity ‘failed’ because the national debt continued to rise. This point can be quickly dismissed – because of some basic maths.

The persistent annual budget deficits (a flow) did mean that public sector net debt (a stock) rose from 70.6 per cent of GDP in 2010/11 to 79.6 per cent in 2018/19, and from £1,261bn to £1,776bn in cash terms. In the wake of Covid these numbers climbed to 93.7 per cent and £2,917bn respectively in 2025/26.

However, the stock of debt would only have fallen in cash terms if the government had run annual budget surpluses, which would not have been realistic. This might even have required more austerity, rather than less.

Moreover, the UK was not an outlier. The maths is the same everywhere.

Looking at the rest of the G7, there have been bigger increases in government debt (as a share of GDP) in the US, France, Italy and Japan. The only G7 economies where debt has not significantly increased since 2010 are Germany, where most now agree that fiscal policy has been too tight, and Canada, where the 2008/09 recession was relatively shallow.

A price worth paying?

In short, the spending restraint of the early 2010s returned the public finances to much better health following the explosion of borrowing in the wake of the GFC. It is therefore hard to see how austerity could have contributed to the UK's much deeper and longer lasting problems.

Indeed, the official view at the time (supported by the IMF, among others) was that it was necessary to tighten fiscal policy to prevent an even worse outcome, even if this meant a weaker economic recovery in the short term. UK politicians and officials were particularly worried by the financial crisis then beginning to engulf Greece.

It was also argued that any economic drag from lower public spending would be at least partly offset by an increase in private spending, as the former helped to keep interest rates low and reduced the risks of 'crowding out'.

Could looser fiscal policy have boosted growth?

This more positive interpretation of austerity has still been widely challenged.

One counter-argument is that a combination of fiscal and monetary stimulus might have resulted in a stronger economic recovery, and that this could have turned the public finances around more quickly too.

In particular, the UK government (and others, including the IMF) may have underestimated the negative impact that fiscal tightening had on growth, especially when the economy was still weak, interest rates were already

low and many other countries were cutting back as well (see Portes and Holland 2012; Wren-Lewis 2015).

In more technical terms, the fiscal multipliers that the OBR used to assess the impact of the tightening in policy announced in 2010 may have been too low (though the OBR itself has consistently disputed this).

Moreover, it is often argued the restraint in public spending fell particularly hard on capital budgets, delaying what may have been much-needed investment in infrastructure and public services and reducing the resilience of the UK economy to subsequent shocks (notably Covid).

According to this view, austerity was precisely the wrong approach. Instead, the government should have taken advantage of low interest rates to increase spending, both to provide an immediate boost to demand and to increase investment for the longer term.

Finally, some have argued that the international creditworthiness of the UK was never seriously in doubt. In part this is because, unlike Greece, the UK was not a member of the euro and therefore retained its independence on monetary policy and the ability to create money to service debts.

A defence of austerity

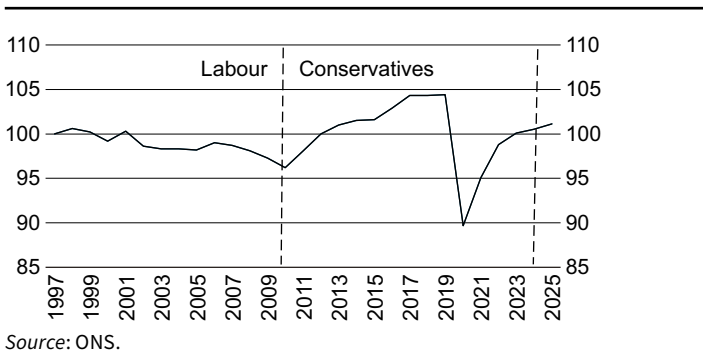
There is a lot to unpack here, but there are three main reasons to reject these criticisms.

First, the degree of austerity is often overstated. As noted earlier, public spending was held broadly steady in real terms, rather than cut aggressively. Spending on

healthcare in particular was protected and continued to grow in real terms between 2010 and 2019, albeit at a slower pace than under the previous Labour government.

The claim that the axe fell particularly hard on capital budgets may have more merit. Public sector net investment was roughly halved in real terms, from a peak of £75.2bn in 2008/09 (in 2025/26 prices) to a low of £37.3bn in 2013/14.

**Figure 30 Total public sector service productivity
(Index 1997 = 100)**



Nonetheless, public sector net investment still averaged just under 2 per cent of GDP in the 2010s. This was higher than the averages in the 1980s, 1990s and 2000s, albeit flattered a little by the inclusion of student loans.

It might still be argued that spending failed to keep up with the increasing demands of a growing and ageing population. However, this was also a period of relatively rapid growth in total public sector service productivity, at least until Covid (ONS 2026).

Second, spending restraint was necessary. There was no guarantee that interest rates would have remained low if the government had chosen to increase borrowing rather than reduce it.

While the UK's position may not have been as parlous as that of Greece, investors would still have demanded higher interest rates to finance larger deficits. Indeed, doubts over the sustainability of the public finances are one reason why the UK government's cost of borrowing is relatively high now.

Third, there was no guarantee either that the government would have spent any additional money wisely.

An exception might be made here for spending on genuine 'public goods'. The 2010s saw large cuts in the budgets for environmental protections, defence and justice, which do now look short-sighted. But a major programme of public works in the 2010s could have been just as wasteful as HS2 is proving to be now.

Funding more borrowing via 'quantitative easing' (the purchase of government bonds by central banks using newly created money) might also have further blurred the lines between fiscal and monetary policy, as well as saddling future taxpayers with additional costs as the policy is unwound.

Conclusion on austerity

Bringing all this together, there is little evidence that the fiscal discipline of the early 2010s had a lasting negative impact on economic growth or productivity, including productivity in the public sector.

Instead, it succeeded in putting the public finances on a more sustainable path – at least until the Covid pandemic struck in 2020.

The economic impacts of Brexit

On 23 June 2016 the UK held a referendum on EU membership and voted to leave by a narrow majority of 52 per cent to 48 per cent. Although the referendum was technically ‘advisory’, the UK government had repeatedly said this was a ‘once in a generation decision’ and that it would ‘implement what you decide’. The vote therefore began the process commonly known as ‘Brexit’.

The referendum itself was about sovereignty. In this respect, Brexit has been a success because it has returned sovereignty to the UK. Multiple opinion polls show that a majority of the public still want decisions in key policy areas to be made by the UK government. The fact that politicians have not used that sovereignty well is not a failing of Brexit itself. Nonetheless, this chapter is about the economic impact.

The decision to leave the EU was itself a shock. Most analysis of the economic impact of Brexit therefore starts the clock in 2016.

This period was characterised by heightened political and economic uncertainty. Article 50 was not triggered until March 2017, which formally began what was supposed to be a two-year exit process. However, negotiations between the UK and the EU dragged on, with Theresa May’s government proving unable to secure parliamentary approval for her deal.

The 2019 general election eventually gave Boris Johnson a large majority to pass a revised agreement. The UK formally left the political structures of the EU on 31 January 2020. But even this was followed by a transition period where the UK remained part of the EU Single Market and Customs Union, which lasted until the end of that year.

This is important, because a lot of the initial disruption, especially to investment, can be traced to that prolonged period of uncertainty, which has now eased.

More positively, the UK left on relatively favourable terms. In particular, the Trade and Cooperation Agreement (TCA) provided zero-tariff, zero-quota trade in goods that meet rules of origin, alongside frameworks for services, digital trade, transport, energy, fisheries and social security coordination.

This is important, too. The upshot is that much less has actually changed than many people anticipated, feared or hoped, in the wake of the vote to leave.

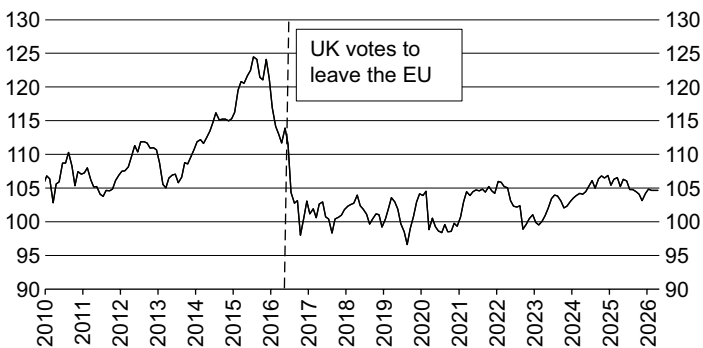
The immediate market reaction

The impact was seen first in the financial markets, where sterling and UK equity prices fell sharply in the wake of the referendum results. This was consistent with fears that Brexit would damage the UK economy in the long run and even that the uncertainty created by voting to leave would be enough to trigger an immediate recession. These fears had been fuelled by some gloomy analysis published in advance of the referendum by the UK government (HM Treasury 2016a,b).

Nonetheless, these market moves need to be seen in context. Sterling had already started to weaken in 2015 as a consensus emerged that the currency was overvalued. This was reflected in large current account deficits and below-target inflation, two problems which the fall in the pound at least helped to correct.

Moreover, in trade-weighted terms the fall in the pound between 2015 and 2016 did little more than reverse the rise since 2012. More than half the peak-to-trough fall in the value of the pound against the dollar over this period took place before the referendum result was known.

Figure 31 Sterling narrow effective exchange rate (2020 = 100)



Source: BIS.

Sterling has remained weak. But UK equity markets recovered quickly as the Bank of England cut interest rates, rather than raised them, and as the feared ‘immediate recession’ failed to materialise.

But beyond that initial shock, there is now a bewildering range of estimates for the harm that Brexit is assumed

to have done to the UK economy, or the benefits of rejoining the EU. These studies can be divided into three types.

1. ‘Crystal ball gazing’

Many studies were undertaken around the time of the referendum in 2016. These attempted to guess what the impact of Brexit might be using a wide range of models and assumptions, before the shape of any future agreement with the EU was even known.

The highest profile of these was the working assumption made by the OBR, which was that Brexit would reduce long-run productivity (specifically, GDP per head) by 4 per cent relative to remaining in the EU. However, this 4 per cent figure was simply a crude average of the results of 13 external studies. Even then, 9 of the 13 studies suggested the impact would be less than 4 per cent.

The OBR also assumed that both exports and imports would be around 15 per cent lower in the long run than if the UK had remained in the EU. This figure was also based on the average estimate of a number of external studies that looked at the impact of leaving the EU on the volume of UK–EU trade.

Crucially, the OBR’s 15 per cent figure covered total trade in goods and services with the entire world, not just goods trade with the EU. A shock of this magnitude to the UK’s global trade had always looked implausibly large, and it has indeed failed to materialise. In particular, the UK’s trade intensity (or ‘openness’) has continued to track that of similar countries, such as France.

2. 'Top down' (or *doppelgänger*) models

Several more recent studies have attempted to look back at the impact of Brexit by comparing the performance of the UK economy since 2016 to that of other countries and then attributing any divergence solely to Brexit.

The highest-profile example here is a paper published by the NBER last year, which suggested that GDP per head was 8 per cent lower than otherwise as a result of Brexit (Bloom et al. 2025).

The NBER paper used data for 33 advanced economies (the EU27, the US, Canada, Japan, Iceland, Norway and Switzerland) from 2006 to 2025, applying five different approaches. Four used data from all 33 economies, taking a simple unweighted average, a GDP weighted average, a gravity-weighted average (GDP divided by distance) and a trade-weighted average.

The fifth approach used a formal 'synthetic control model'. This is the most sophisticated version of a 'doppelgänger', where a computer algorithm is left to pick the weighted average of a subset of countries whose economic performance happened to match that of the UK most closely before 2016.

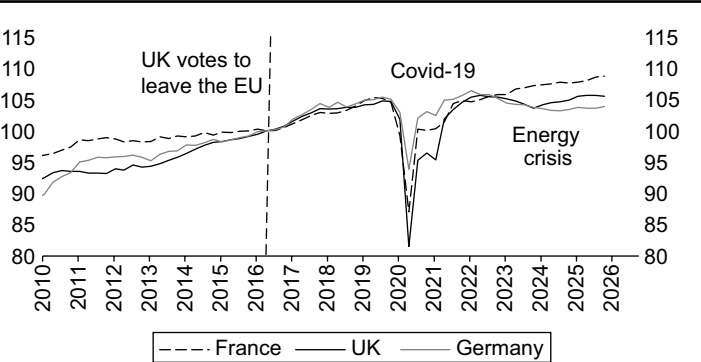
However, this approach simply cannot separate out the impact of Brexit from other reasons why some economies have grown more quickly (or slowly) than the UK since 2016.

These alternative explanations include the impact of the Covid pandemic and the energy crisis, and many others. For example, the US has benefited not just from

relatively low energy but also from a large fiscal stimulus and the AI boom.

Care should be taken too when comparing the UK's economic performance since 2016 to that of countries hit hard by the euro area debt crisis of the early 2010s. The numbers for Italy, Spain and Greece in particular have been flattered by catch-up growth. The 8 per cent figure is implausibly large if you compare the actual performance of the UK economy to better matches such as France or Germany.

Figure 32 Real GDP per capita (Q2 2016 = 100)



Source: OECD.

3. Bottom-up studies

These studies have tried to calculate the impact of Brexit from the bottom up, using industry or sector level data. In principle, these studies might be better able to separate the impact of Brexit from other factors. But they are still flawed.

For example, the NBER paper also suggested that Brexit has reduced UK per capita GDP by 6 per cent (rather than 8 per cent) using an alternative approach based on micro-modelling. This drew on firm-level survey data from the Bank of England's Decision Maker Panel (DMP) survey. Any divergence in the performance of firms based on their pre-referendum exposure to the EU was then assumed to be due solely to Brexit.

The DMP is a relatively large survey, but the respondents are not necessarily representative of the UK economy as a whole. More importantly, divergences in the performance of individual firms depending on their exposure to the EU may also be picking up the relative weakness of major European economies over this period (especially Germany), or other factors such as the impact of the UK's relatively high energy costs on the competitiveness of goods which are mainly exported to the EU.

Finally, while the prospect of an increase in trade frictions with the EU will clearly have had some negative effects, these should prove to be (mostly) temporary as Brexit uncertainty fades and firms adjust to the new trading arrangements. Indeed, the DMP itself suggests that Brexit has dropped well down the list of concerns for most firms.

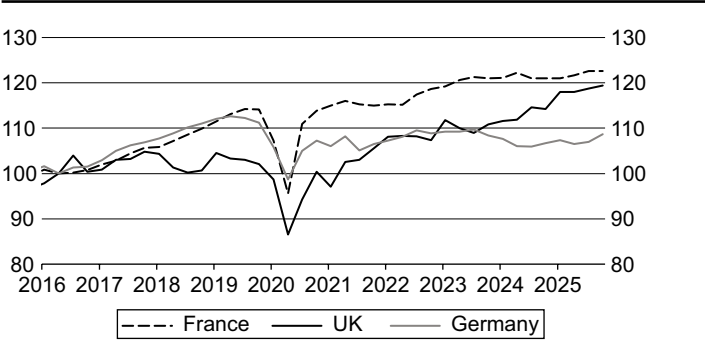
A better approach

Comparing the performance of just one country (the UK) to an average of many others is bound to gloss over all the alternative explanations for the differences. A more

balanced view would look too at the performance of the UK economy compared to individual countries – especially those that might have been expected to perform similarly in the circumstances of the last ten years (not just in the ten before that).

Supporters of the doppelgänger approach, and especially the use of synthetic control models, argue that these techniques minimise the problem of ‘cherry-picking’ countries to fit a particular narrative. They are also widely used in other contexts.

Figure 33 Non-dwellings investment (Q2 2016 = 100)



Source: OECD.

But there is a trade-off here. There must be some role for judgement when it is obvious that other factors are at play. There may be a greater risk that leaning too much on computer models, or averages of as many as 33 very diverse economies, will stifle any intellectual curiosity.

Here then are some stylised facts.

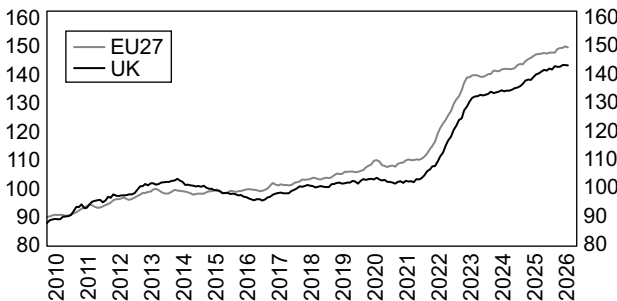
On investment, the UK lagged behind other comparable countries in the first few years after 2016, but then began to catch up again as Brexit uncertainty eased (although the stock of capital is still lower than it would otherwise have been).

On trade, the UK has underperformed on trade in goods with the EU, but also on trade in goods with the rest of the world beyond the EU. This suggests that the additional frictions in UK–EU trade have played a relatively small part.

Moreover, the UK has outperformed on trade in services, meaning that overall trade has held up much better than expected.

On inflation, any Brexit effect has been swamped by other factors. This is perhaps clearest if you look at food prices.

Figure 34 CPI food and non-alcoholic beverages (2015 = 100)

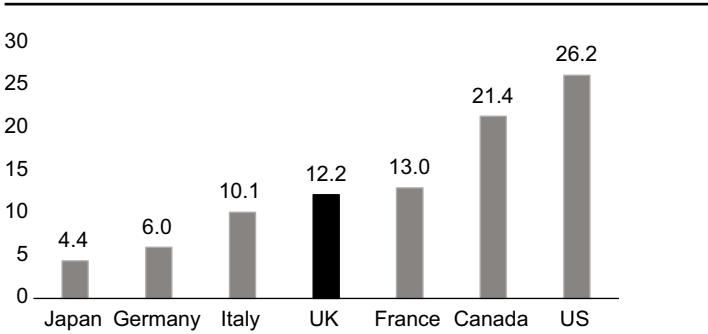


Sources: ONS and Eurostat.

On total GDP, the UK economy has performed relatively well compared to other G7 economies in Europe. This largely reflects the initial surge in net immigration to the

UK in the years after Brexit, confounding forecasts that migration would collapse.

**Figure 35 Cumulative growth in real GDP (%)
between Q2 2016 and Q4 2025**



Source: OECD.

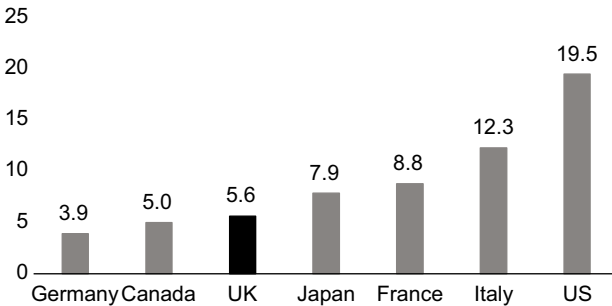
On per capita GDP, the UK has performed relatively poorly, but has still continued to track between France and Germany, while keeping pace with Canada. As noted earlier, Italy’s faster growth since 2016 is partly just catch-up after the big hit from the euro debt crisis of the early 2010s. It has also been flattered by a huge fiscal stimulus.

Conclusions on Brexit

Many people want to believe that leaving the EU has been a disaster for the UK and are happy to blame Brexit for all the UK’s problems. This involve exaggerating the costs while downplaying the benefits, both now and in the future.

It is more helpful to compare the performance of the UK to individual countries with similar characteristics, such as France, Germany and Canada.

Figure 36 Cumulative growth in real GDP per capita (%) between Q2 2016 and Q4 2025



Source: OECD.

This shows that Brexit has largely been a non-event in macroeconomic terms. Indeed, the real story is how little impact that leaving the EU has had. This makes sense, because relatively little has actually changed.

The consensus also assumes that the costs of Brexit will only grow over time. In fact, there is already plenty of evidence that the headwinds are fading.

In particular, the initial uncertainty created by the vote to leave and the prolonged negotiations thereafter was a drag on business investment. But this drag is now lifting as Brexit uncertainty has eased.

Similarly, firms are adjusting to the new trading arrangements and found alternatives to EU workers. The OBR's assumption that global exports and imports would

be 15 per cent lower than otherwise simply has not materialised. Labour shortages have eased too.

There is no serious discussion of the potential benefits of Brexit. At most, the benefits of new trade deals are dismissed. But there is rarely even any acknowledgement of the scope for regulatory improvements – as already seen in sectors as diverse as financial services, life sciences, and animal welfare. And there is huge scope to do better in growth areas, such as AI.

Last but not least, the savings on budget contributions will also only get bigger as the EU expands.

References

- Bloom, N., Bunn, P., Mizen, P., Smietanka, P. and Thwaites, G. (2015) The economic impact of Brexit. NBER Working Paper 34459 (<https://doi.org/10.3386/w34459>).
- HM Treasury (2016a) HM Treasury analysis: the long-term economic impact of EU membership and the alternatives. 18 April (<https://www.gov.uk/government/publications/hm-treasury-analysis-the-long-term-economic-impact-of-eu-membership-and-the-alternatives>).
- HM Treasury (2016b) HM Treasury analysis: the immediate economic impact of leaving the EU. 23 May (<https://www.gov.uk/government/publications/hm-treasury-analysis-the-immediate-economic-impact-of-leaving-the-eu>).
- OBR (2026) Public finances databank (<https://obr.uk/data/>).
- ONS (2026) Public service productivity (<https://www.ons.gov.uk/economy/economicoutputandproductivity/publicser>

vicesproductivity/bulletins/publicserviceproductivityquarterlyuk/octobertodecember2025).

Portes, J. and Holland, D. (2012) Self-defeating austerity? Vox-EU CEPR (<https://cepr.org/voxeu/columns/self-defeating-austerity>).

Wren-Lewis, S. (2015) The austerity con. *London Review of Books* 37(4) (<https://www.lrb.co.uk/the-paper/v37/n04/simon-wren-lewis/the-austerity-con>).

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The Great Stagnation

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Touching on areas ranging from banks to Brexit, from energy to infrastructure, and from housing to tax, each author presents unique and compelling analysis of what can and can't be blamed for Britain's relative economic decline. In the process, they take the reader through years of policy failure and missed opportunities from politicians on the left, right and centre.

This is a depressing but essential read for anyone who hopes to understand Britain's economy and how it was broken.

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