INSTITUTE FOR GOVERNMENT

Business investment

Not just one big problem

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About this report

The UK's mediocre level of business investment has frustrated chancellors and ministers for many decades. This report sets out the scale of the challenge and examines the approaches to fixing this that have been attempted in the past. Only by improving policy certainty and commitment across the whole of government can the problem begin to be addressed.

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Summary

> **"The lower level of capital investment we see by UK businesses ... is a pervasive economy-wide issue, it has been persistent for decades, and we must fix it to improve productivity, growth, and living standards."**
> – Rishi Sunak, the then chancellor, Mais lecture, 24 February 2022.

The UK has a long-standing problem of low business investment. This has worsened since the shocks of the 2008 financial crisis and Brexit and plays a big part in the nation's low productivity. Any chancellor should make fixing it central to their economic policy. And though some of this weakness may reflect a decades-long shift towards a more intangible, services-led economy, that is not the whole story, and no excuse for complacency on the part of policy makers. All countries need all kinds of investment to prosper. International comparisons suggest that the UK is not doing enough.

The problem is usually depicted as the failure of a single, national-level variable to grow fast enough. Solutions are not so unitary, however. Policy makers once hoped that steadying the macro economy would create the conditions needed for a rise in business investment. But such stability is often elusive – for reasons both within and beyond the control of politicians. Less than a decade after the financial crisis, Brexit wrought further, lasting damage to the UK's business environment, and five chancellors later the reverberations are far from over. And while macro-economic stability is a necessary condition for growing investment, it may not be sufficient.

Nor are the standard recourses of chancellors in the past: financial help for investment, lower interest rates, targeted subsidies or the perennial call for tax cuts. All can make a difference but given the "lumpy" nature of investment none is able to drive new projects when conditions are not otherwise encouraging. Evidence of the government's generous 'super-deduction' – a 130% deduction for investment in certain assets, in place during a period of far-from-super investment growth – shows how hard it is to encourage risk-taking during a time of rising uncertainty. There has also been a lukewarm reaction to the promises made by Conservative leadership candidates of sharply lower corporation tax, with businesses explaining that headline taxes matter little when the prospects for profit are so uncertain.

This report warns that lavish, tax-focused attempts to induce new investment might prove costly if the business environment remains so uncongenial. However, there is much that the government can do to improve this picture. Its task is best approached at a more granular level than the whole economy. Different companies mulling investment need confidence about different conditions, whether in particular technology, sector, region or overseas market. The government often has valuable influence over these, especially in areas it has strong policy interests, like health care, transport, energy and so on; these can be brought to bear far more intuitively than by tweaking headline rates of tax.

We provide examples of good practice, where the government through the creation of various institutions, or by setting out and sticking to a clear strategy, has helped to create the right environment for growth. It is also quite easy to find the opposite – where inconsistency or a failure to follow through has impeded investment.

The importance of stable institutions and predictable strategy have been the subject of past Institute for Government work – and a key feature of how the Treasury sees the world, too.[*] But improving investment cannot be left to the Treasury to solve. Indeed, its tight control of business policy and focus on short-term value for money may even make uncertainty worse, as it can shorten financial horizons and lead to support being withdrawn too quickly. Low investment is a problem for the whole of the UK, and so addressing it is a whole of government challenge.

* For more detail on the lessons of industrial strategy, see Wilkes G, *How to Design a Successful Industrial Strategy*, Institute for Government, 2020, www.instituteforgovernment.org.uk/publications/industrial-strategy

Why is business investment important?

Investment is key to higher growth. In simple terms, it means producing something that helps to create future production, rather than being consumed there and then. Typical examples are buildings, machines, transport equipment, or improvements to land or infrastructure, although investment might also include more intangible goods, such as software.

Often in casual use the definition is allowed to stretch across many more types of spending: a politician will talk about "investment in skills" or "an investment in our communities", for example, as shorthand for specific kinds of financial commitment that it is hoped will pay back over a longer timeframe. It is questionable whether everything described in such a way really is an investment, however. For example, a company may spend on improving its workforce's skills, but it won't generally own an asset as a consequence, in contrast with an investment in a building. Therefore, there are certainly boundary issues in how it might be defined, as seen in the efforts being put into a robust definition of 'intangible capital', which we discuss below but otherwise do not dive too deeply into. This report is more narrowly focused on business investment as is defined strictly in national accounts.

Creating investment goods is a big part of the economy: for mature economies, between 15 and 25% of GDP will usually be devoted to 'gross fixed capital formation'.[1] Developing countries can exhibit even higher rates of investment; China, for example, has at times invested over 40% of GDP, underpinning its decades of high growth.[2]

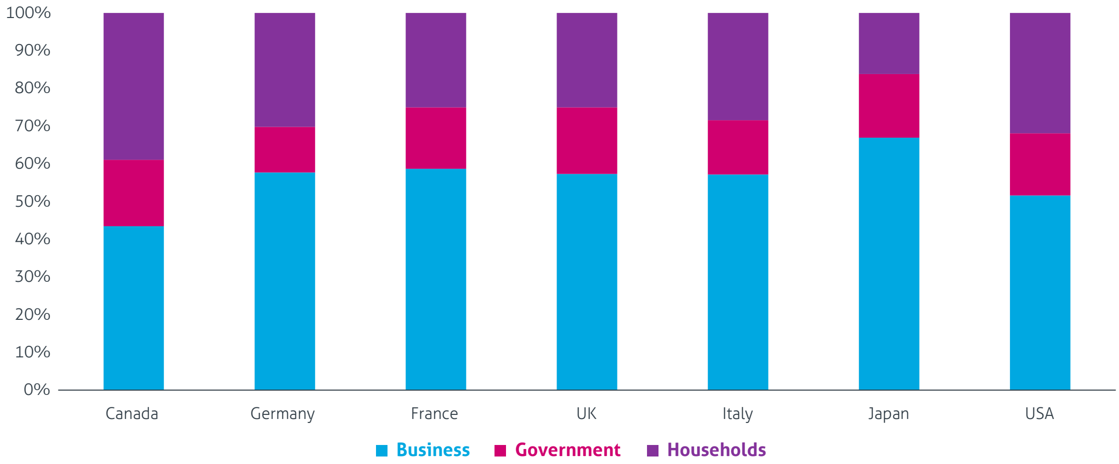
There is no cast-iron rule that it always makes sense for an economy to invest more – to build another new bridge, energy network or factory. Investment represents foregone consumption today in return for possibly higher consumption in the future.[3] That means that spending more on investment today requires consuming less in the short term – meaning there is less scope, for example, to pay a nurse or enjoy a holiday. Even where it raises future GDP, the loss of consumption relative to the choice of *not* investing can last many years.

The numbers: the stock and the flow of investment capital

Most economic discussion of capital concerns the flow of new investment – the extra capital produced in the period in question, otherwise known as gross capital formation. This is what the government tends to refer to when it says it wants to raise investment in the economy. Gross capital formation is an extremely large number – almost £400 billion in 2021, or 18% of GDP.[4] Businesses, households and governments all contribute, with business tending to account for the greatest part.

In the four quarters to Q1 2022, business investment in the UK amounted to £212bn.[5] The largest single industry sector was manufacturing, which accounts for about a sixth of private investment, with real estate close behind, followed by sectors such as information and communications, transport and utilities.

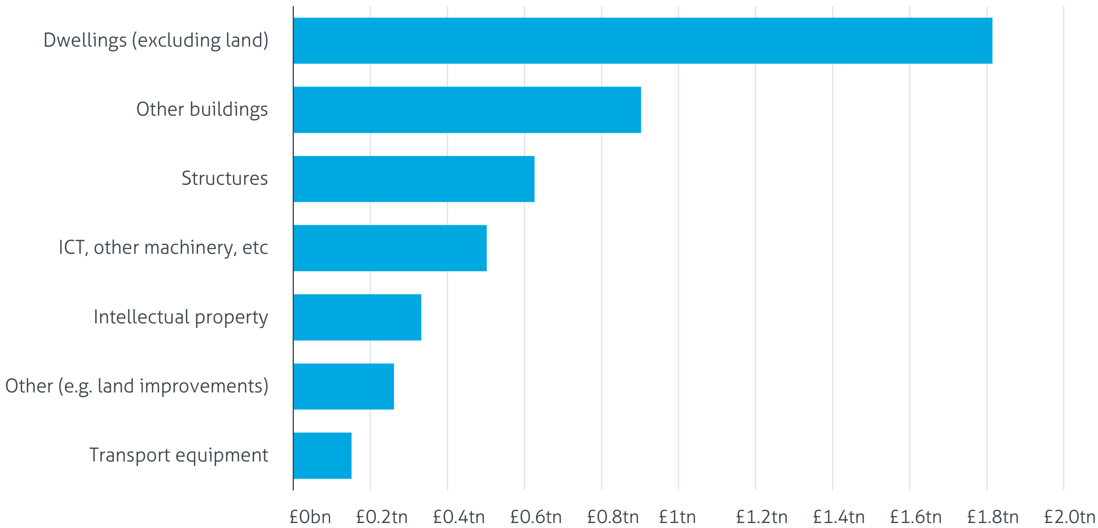
Figure 1 **Breakdown of country investment by source**



Source: Institute for Government analysis of OECD figures.

There are good reasons for a focus on the flow of new investment. As well as an adequate overall capital stock, economies need access to new technologies, new techniques and new or growing markets, all of which come at a cost. All the same, it is the *stock* of capital that has the most immediate bearing on the economy of today – which has the accumulated investment of all the years before to deal with, not just whatever was newly created that year. As of 2020, the capital stock of the UK was estimated to be around £4.6 trillion, of which around £2.0tn is for private, non-financial businesses. Most of the remainder, £1.7tn, is owned by households, with the rest largely made up of investment by local and central government. As shown in Figure 2, the bulk of investment is in buildings, other structures and land.

Figure 2 **The UK's capital stock, 2020 (£bns)**



Source: Office for National Statistics capital stock tables.

Not all these categories will generate the same economic return, but all contribute in some way. Even a house or apartment, not a typical object for growth policy, provides a stream of 'accommodation services' to future consumers and so adds to GDP.

The sheer scale of capital stock needs bearing in mind when evaluating commitments to 'transform potential' through extra investment.[6] For example, the government's plans to raise its own gross capital spending to £100bn a year are impressive, particularly since it languished at around £50-60bn for over a decade before, but even if maintained over many years this might plausibly expand the capital stock by only a few percentage points.

How important is investment for economic growth?

A country that did not invest at all would struggle, after a certain point, to grow at all. Existing capital stocks depreciate every year – roads are damaged, machinery breaks, houses need repairing – so a certain amount of investment is needed simply to maintain the current stock. There is also a limit to how hard, or ingeniously, existing capital can be worked to produce more output. Well-chosen new investments are of great importance to increasing an economy's potential.

Beyond that truism, generalisations about the importance of investment are difficult because of its heterogenous nature. Estimates of its significance for future economic potential are dependent on many variables – in particular the exact nature of the investment and how it is chosen – and have a wide range. For example, the government's *Plan for Growth* from 2021 quotes a study that argues that a 10% increase in infrastructure capital is linked to a 1–2% increase in GDP. Other work has found that the elasticity of GDP with respect to the stock of capital in the economy is between 0.2 and 0.3 – so a 10% increase in the capital stock would raise GDP by 2–3%.

Variables aside, it is established fact that investment matters. Unfortunately, what is also fact is that the UK has had a problem with consistently weak investment, particularly from business, which has resulted in it lagging many comparator countries.

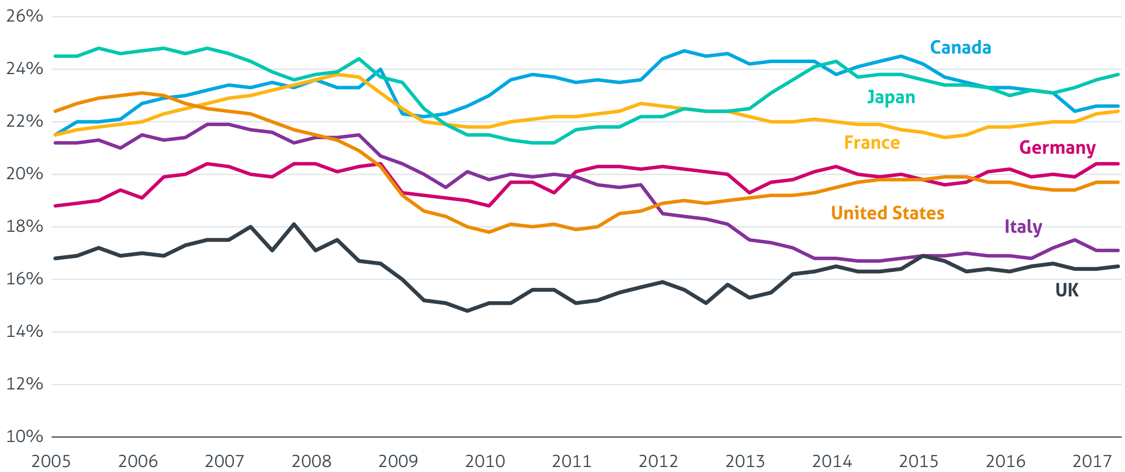
The problems of consistently weak investment

There is no 'right' level of investment in a country. As noted earlier, any investment always includes a trade-off: higher spending on capital means lower consumption. However, there are reasons to believe that UK capital investment has been too low, from business in particular.

The UK has persistently lagged other comparable countries

First, there is the evidence of persistently lower levels when set against other advanced economies.[7] Over the past 15 years, UK gross capital formation as a share of GDP has lagged G7 countries by around 2–8 percentage points.

Figure 3 **Total investment as a share of GDP**

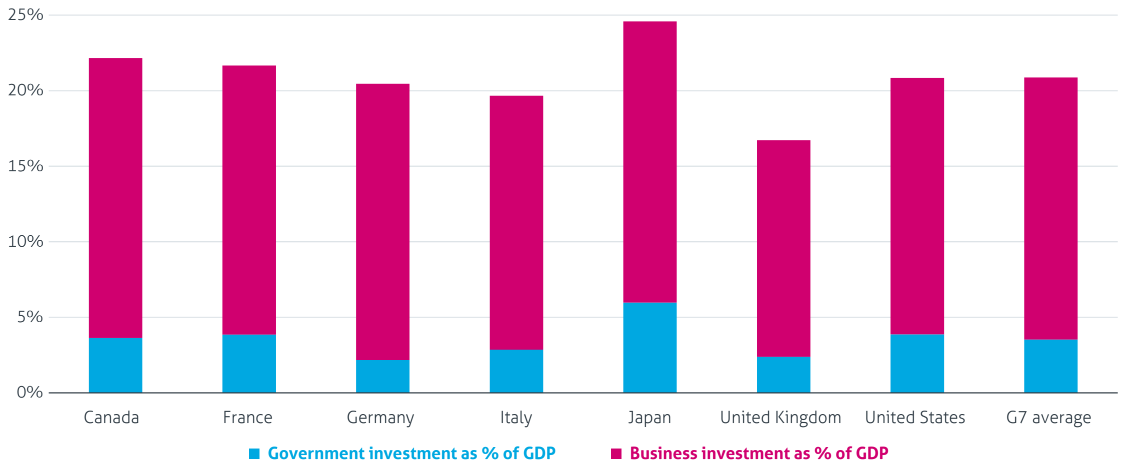


Source: Institute for Government analysis of ONS figures.

These figures concern total capital investment in the economy, no matter which source. International statistical standards for specifically business investment do not permit robust comparison* – although available breakdowns suggest the problem lies mostly with non-governmental sources of investment (Figure 4).

* In Office for National Statistics, 'An international comparison of gross fixed capital formation', November 2017, www.ons.gov.uk/economy/grossdomesticproductgdp/articles/aninternationalcomparisonofgrossfixedcapitalformation/2017-11-02, the authors write: "Business investment is not an internationally recognised concept and therefore, it cannot be used to make international comparisons." But an examination of specific sectors of the economy on an international basis, such as manufacturing or professional business services, tends to find a pattern of lower UK investment when compared to peers.

Figure 4 **Government vs non-government investment as share of GDP (2017)**

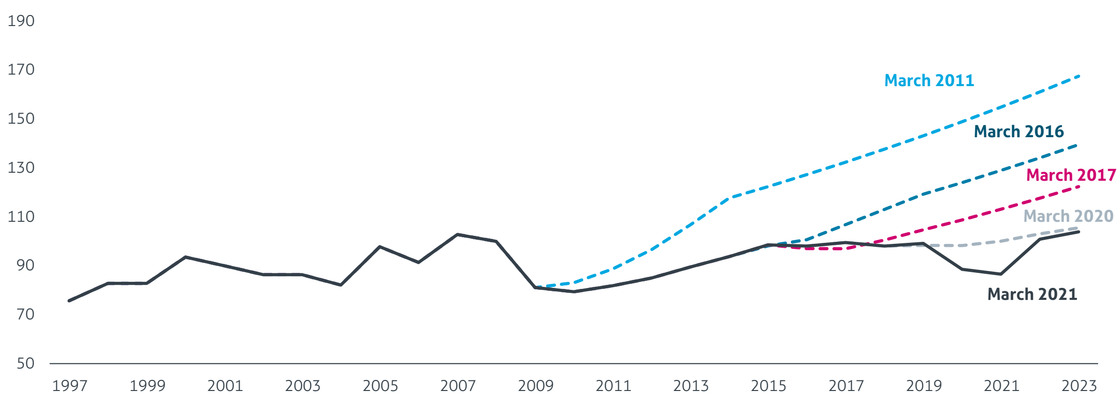


Source: Office for National Statistics.

The trend in business investment has been weak – and is projected to remain so

Second, although it recovered from the nadir that followed the 2008 financial crisis, in the past 12 years the Office for Budget Responsibility has repeatedly needed to downgrade forecasts of a fast business investment revival (see Figure 5). Projections fell for the first few years as the economic recovery disappointed. This illustrates the importance of GDP expectations – businesses typically invest to be ready for higher expected demand in future, and the period 2010–13 saw repeated falls to the forecast path of the recovery. Then, forecasts for business investment were lowered again in two phases for the result of the Brexit referendum – first on the result, and then as the final shape of the trade deal with the EU emerged.

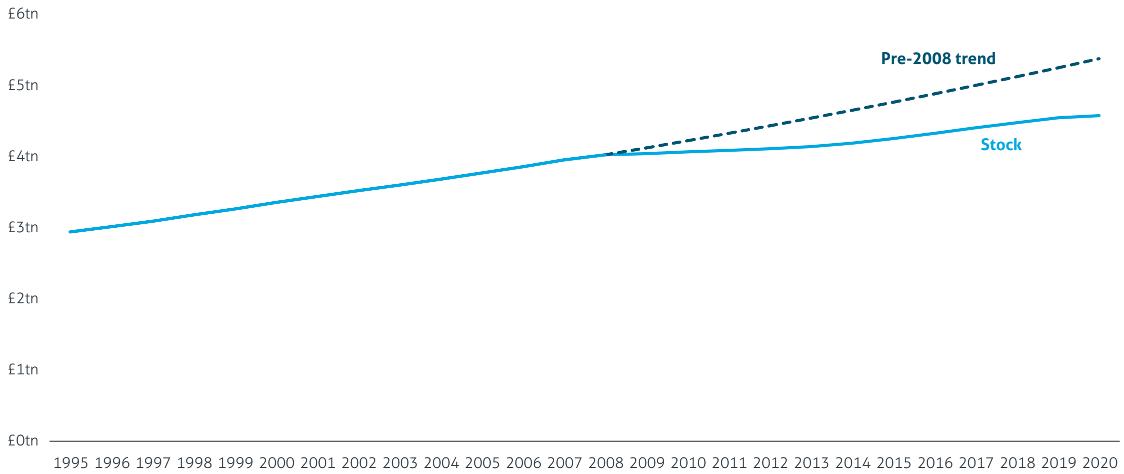
Figure 5 **Evolving forecasts for business investment from the OBR (2008 = 100)**



Source: Office for Budget Responsibility historical forecast database; author's calculations.

Despite starting from a relatively low investment base before the crisis, the UK has shifted even more to a labour-intensive, lower-capital model for growth. Although its capital stock continued to grow in the dozen years after the recession of 2008–9, the rate of increase slowed markedly (Figure 6). A distinct break in the trend can be seen – from a position of around 2.6% growth every year to 1.15% (from 2007 to 2019). GDP growth also slowed down sharply, but at around 1.3% was above the increase in the net capital stock.

Figure 6 **UK capital stock and pre-2008 trend**



Source: Office for National Statistics; Institute for Government calculations.

Economist Tera Allas has argued that these figures look still worse when set against the growth of the labour force. Growth in the capital stock *per hour worked* slowed dramatically, from around 2.2% per year to 0.2%.[8] Workers have less capital to help them with than they were expected to.

Weak investment is a likely cause of the productivity slowdown

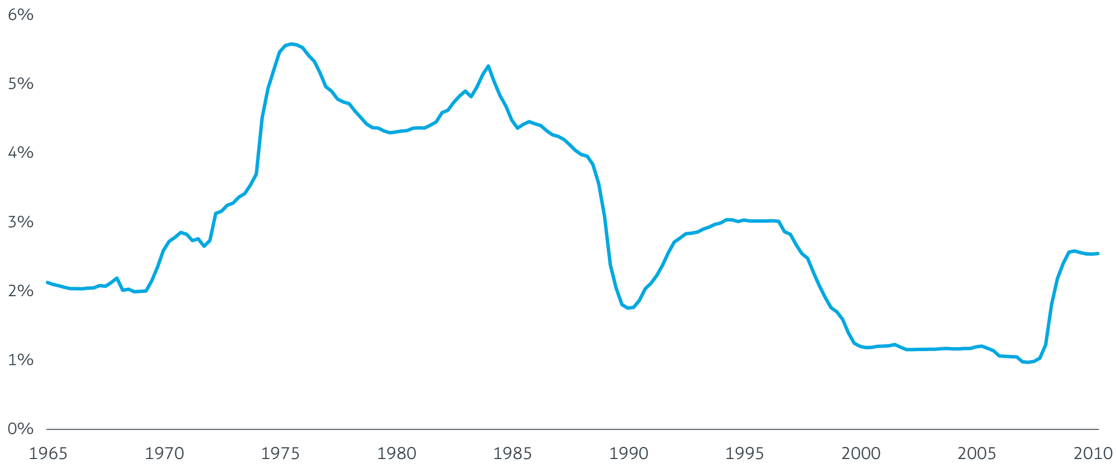
Finally, UK productivity growth is still sluggish following a weak recovery from the financial crisis. That this is happening at the same time as business investment slowed has not escaped notice, and there is widespread analysis pointing to this as one of the chief culprits. In his Mais lecture this year, the then chancellor, Rishi Sunak, cited analysis from the Office for National Statistics that found around a quarter of the UK's productivity gap might be accounted for by insufficient "capital deepening".[9] The implication is that continuing the pre-2008 trend for capital investment might have resulted in labour output per hour far higher (the ONS data suggests over 6 percentage points) than has resulted.

It is wise to treat any such results with caution. Investment is both a cause of and influenced by economic growth. It is impossible to know the pathway of a UK economy that had invested more, without making assumptions about the cause of this higher investment and creating counterfactuals for other variables such as the macro-economic climate and rate of innovation. But as we discuss below, having a strongly growing economy is the best way to encourage higher investment. Blaming the weak economy on weak investment can involve a degree of circularity.

Macroeconomic instability was once assumed to be the culprit for weak business investment

It is not only in recent years that policy makers have seen weak investment as a problem. Sir John Gieve, then a member of the Bank of England's Monetary Policy Committee, spoke of the "puzzle" of UK business investment in 2006, noting that this has been a concern for as long as he could remember and citing strategies going back to the 1960s and 1970s. For Gieve, the puzzle was that investment did not grow more after policy makers addressed the macro-economic instability that they assumed was behind its weakness, and which was chronic between the 1970s and the early 1990s.[10] Measured in terms of the volatility of GDP growth, he was speaking at a time of historical stability, and yet the UK was still struggling to catch up with its peers.

Figure 7 **10-year average volatility of annual nominal GDP growth, 1965-2012**



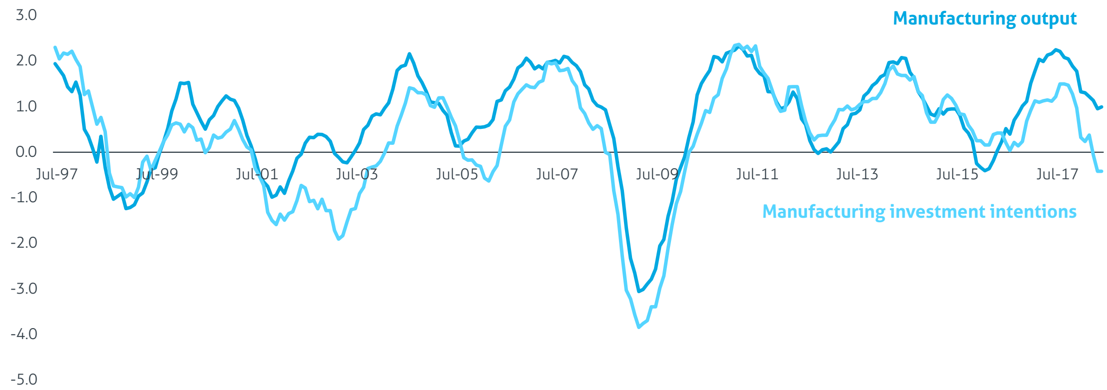
Source: Author's calculations.

In 2006 the UK was beginning to see a sustained rise in business investment, and it is impossible to say whether this might have endured, had the period of what Gieve clearly saw as relative calm continued. But in hindsight, Gieve was complacent to portray the problem of macro-economic instability as solved, even speaking before the financial crisis. The period since the mid-1990s had seen severe economic crises in East Asia (1997) and Russia (1998), the inflation and deflation of the internet bubble and the September 2001 terrorist attacks. And even if these could be explained away he was speaking just two years out from the 2008 financial crisis, and not far from the eurozone crisis, the shock EU exit referendum result, the pandemic and now an inflation crisis worsened by the war in Ukraine. The uncertainties generated by these events would not all be captured by a simple examination of GDP volatility.

Surveys confirm that demand conditions nevertheless remain key

A look at historical data shows how plans to increase capital spending are affected by sentiment towards the broader economy. From surveys such as those operated by the Bank of England, responses to the question about the past strength of output are well correlated with the score on investment intentions (Figure 8). The same can be seen for services (Figure 9).

Figure 8 **Manufacturing responses on output and investment intentions, BoE survey**



Source: BoE surveys 1997 to 2017.

Figure 9 **Services responses on revenues and investment intentions, BoE survey**

Source: BoE surveys 1997 to 2017.

These patterns suggest that, at the level of the whole economy, it is very hard to boost investment intentions in the absence of widespread experience of growing sales and profits. This reinforces findings from studies conducted in the wake of the 'Great Recession' that followed the financial crisis, which found that low demand growth was the key factor for understanding the failure of firms to invest.[11]

The 'lumpy' nature of investment makes risk key

There is an inherent asymmetry in investment that can weigh against it when times are difficult or volatile. While a company that under-invests may miss out on future opportunities, one that over-extends during a crisis risks going bust. Moreover, investment has a "lumpy" or "spikey" character.[12] Increases tend to be driven by the number of firms undertaking a new investment, rather than increases in the size of the projects. This can make investment an all-or-nothing affair – either the project is embarked upon, or not – which raises the importance of risk as a determining factor. A paper from the Bank of England in 2018 confirmed this, finding that uncertainty mattered more for understanding investment dynamics than cost of capital – and that risk at the level of the individual firm, not just of the overall economy, had to be understood.[13,*]

* These themes – the dominant role of demand expectations and uncertainty, and the importance of understanding them at a more micro level – are important in the later discussion of policy approaches.

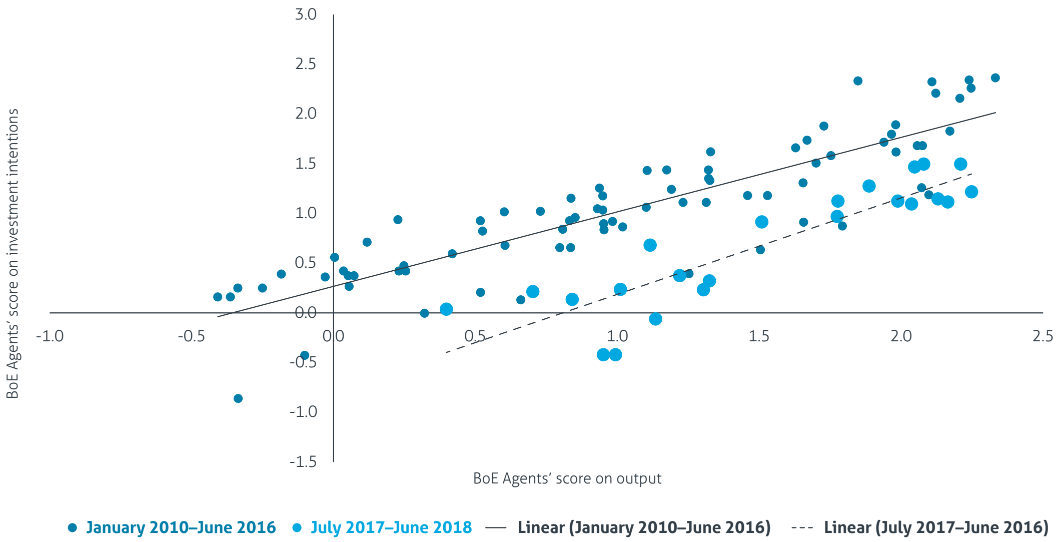
Brexit has harmed investment intentions

It is normally difficult to find natural experiments that prove the effect of any specific cause on investment, given how many variables come into play. However, an exception was provided by the EU referendum of 2016 and the period of uncertainty afterwards. Shifting projections from forecasters such as the Office for Budget Responsibility (see Figure 5) and BoE survey responses (Figures 8 and 9) make clear the effect of this abrupt increase in uncertainty brought about the UK's change in trading conditions.

Turning to the evidence from companies' plans, Figure 10 below plots the relationship between manufacturing investment intentions and reports of output strength on an X-Y chart, splitting out the pre- and post-referendum period. It shows more clearly that while investment intentions continued to track reports of revenue strength – the slope of the line is positive – since 2016 there was a shift downwards in this relationship. What this suggests is that for the same level of output, manufacturers were planning for lower investment, an effect estimated to amount to 4–5% lower growth in investment in this sector.*

What exactly caused this is not teased out by the survey. One answer might be lower *expected future demand*. The fall in the pound immediately after the referendum result will have helped current exports (this is backed up by BoE survey data), at a time when new trading frictions were not yet impeding business operations. Investment, in contrast, is about servicing future demand, which may reasonably have been expected to fall once those new frictions came into being. Relatedly, regulatory divergence and trading frictions might have been expected to make serving the same level of demand more expensive, and thereby cut the case for investment.

Figure 10 **Shifting relationship between output (X) and investment intentions (Y)**



Source: Bank of England Agents' survey.

* Author's calculations. The post-referendum line is about 0.8 points lower, and a separate regression between agents' investment intentions and manufacturing investment shows a positive relationship with a slope of about 0.6. This roughly accords with work from Bloom and others, 'The Impact of Brexit on UK firms', NBER, September 2009, which found investment post referendum to be 11% lower as a result.

This lowered appetite to invest agrees with evidence from other surveys studied by Nicholas Bloom and co-authors that found investment in the three years after the vote to be down about 11%.[14] Recent research from the Centre for European Reform similarly backs this up: investment in 2022 in the UK is 13.7% lower than for a constructed set of "doppelganger" economies that roughly matched the UK before the referendum.[15] Interestingly, it appears that the economic earthquake triggered by Covid generated a sharp but strictly temporary effect on business investment, returning to the levels previously expected by the OBR once the pandemic had passed. In contrast, the enduring changes wrought by Brexit appear more significant over a longer timeframe.

Structural and cultural issues with investment in the UK

The successive shocks to have hit the UK provide a convincing explanation for why private sector investment has faltered over the past 20 years. The EU referendum result and the uncertainty that followed are a strong contributory cause of the reverses since 2016. But the UK is not alone in facing such episodes, and yet its investment in physical assets has been consistently weaker than its peers, going back long before the Brexit referendum. This lends weight to suspicions that there are structural features of the UK economy, its business culture and its institutions, that lead to more short-termism and aversion to investment.

These suspicions were prominent in the period after the financial crisis, when UK banks were accused of being more interested in financing speculation than real investment. The business department kicked off work on this topic in 2010 with a call for evidence, leading to the Kay review of equity markets, and further reforms to corporate governance.[16] The TUC in 2014 wondered if short-termism in management might lead to an over-preference for profit over long-term investment.[17] Risk-aversion as much as greed might lead to the same bias.

These biases against investment may have been exacerbated by the UK's relatively light-touch labour regulation, which tilt strategies towards hiring over investing. This possibility was raised as long ago as 2006 by the Department of Trade and Industry in an examination of productivity and competitiveness.[18] Events lent weight to this thesis: after the financial crisis, there was an impressive expansion in employment, even as investment failed to recover as well as hoped. There are also long-standing concerns with the quality of management of UK companies, particularly smaller enterprises.[*]

Constant policy churn is an important factor in causing short-termism and generating impediments to investment. Even without Brexit, the past few decades have seen regular changes in the posture towards industrial strategy, regional policy, business advice, skills policy and more.[19] Capital budgets have been raised, slashed and raised once more. Tax policy for business has been subject to numerous changes, even while

* A good collection of the evidence can be found in: House of Commons BEIS Select Committee, *Small businesses and productivity: Fifteenth report of session 2017–19* (HC 807), The Stationery Office, 2018, https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/807/807.pdf. A well cited paper on the management failings is: Bloom N and Van Reenen J, 'Measuring and explaining management practices across firms and countries', *The Quarterly Journal of Economics*, 2007, vol. 122, no. 4, pp. 1351-1408, https://academic.oup.com/qje/article-abstract/122/4/1351/1850493

the headline rate was steadily lowered; capital allowances, the treatment of small business, dividend taxation and capital gains taxes have all been 'reformed' from time to time. The treatment of revenues from the North Sea were subject to considerable volatility, even before the recently announced windfall tax.[20]

A definitive evaluation of something as broad as the effect of short-termism and the UK's political culture on investment is beyond the scope of this paper. Disruptive policy churn has been a feature in the UK, but to prove it explains low business investment would require a robust comparison with other countries. But the UK's persistent weakness in investment through the economic cycle and over a long period of time is evidence that a convincing answer must go beyond an examination of the usual factors like tax policy.

Performance has not been uniformly bad and there are mitigating factors

The longer that the UK's post-financial crisis productivity slump has continued, the more settled economists have been on the view that low capital accumulation is a serious problem.[21] But UK investment weakness predates 2008 and yet between 1992 and 2007 its performance in terms of GDP, productivity and employment compared favourably with peers. This may help explain why policy makers have not always treated the UK's weakness here as a damaging policy mistake to be urgently rectified. Perhaps they observed examples of slower-growing, but higher-investment countries, like Japan and Italy, and reasoned that a lower-investment approach was not always bad.

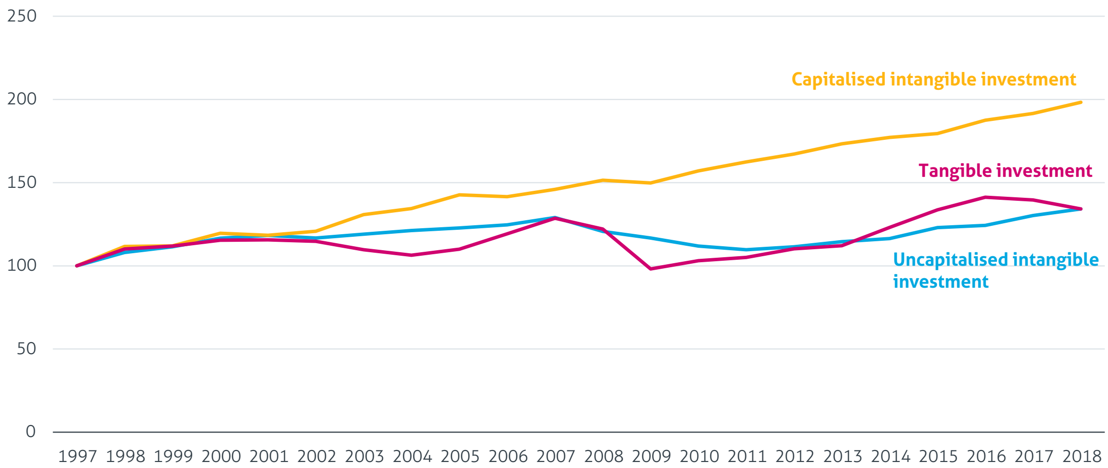
Missing intangibles and the shift to services

Another important argument against the idea that the UK has suffered serious damage in this regard is that standard measures of 'investment' do not capture everything that is investment-like in economic activity, in particular the accumulation of intangible capital. Intangible capital expert Jonathan Haskel, in discussing the key assets of superstar tech firms, explained how "software, reputation, relationships and knowledge… Knowledge from R&D, software, reputation and brands are also assets but intangible."[22] National statistics capture some but not all of these under 'investment'. If the UK is particularly strong in these areas, then the gap with other peer countries may be less than it appears.[23]

Adjusting for intangibles is technically challenging, particularly given fast-changing prices for key components, and the difficulty of putting a price on something as nebulous as a company's more efficient operational model, say, or its consumer brand value. Other countries as well as the UK invest in brands, training, service design and so forth, and there is not a robust way of comparing across national boundaries. We cannot therefore be confident that a perfect recognition of intangible assets would propel the UK far up the international investment league table. Nor are intangible assets a perfect substitute for the tangible kind, so the puzzle of low physical investment is not entirely addressed by their inclusion.

In fact, over the period during which the ONS has been trying to measure intangible investment, both capitalised and uncapitalised (i.e. not recognised in investment figures), the last category has failed to outperform tangible investment. Its non-inclusion would not therefore solve the puzzle of weak investment growth over the past 20 years. The main observation from the ONS breakdown[24] is the relentless increase in *capitalised* intangible investment – the part that is counted towards the business investment figures. Software, at just over 50%, makes up the largest element of this, followed by R&D expenditure.*

Figure 11 **Tangible and intangible investment (capitalised and not) since 1997 (1997 = 100)**



Source: Office for National Statistics.

Another related mitigating factor is that the UK has been relatively advanced in shifting towards services, which helps to explain lower physical investment; while investment by the manufacturing sector has remained stuck at around £25–35bn a year since 1997 (in constant value terms, 2019 prices), services sectors such as education, information technology and health have seen higher growth, but from a lower base. Manufacturing has shrunk as a proportion of GDP over this period. But then the question naturally becomes whether this weak manufacturing performance excuses stagnant investment in that sector or was caused by it. As manufacturing tends to exhibit a strong tendency to improve in productivity over time, an investment approach that weighed against it might still be blamed on damaging the UK's potential.

Past efforts to improve business investment – on stability, finance and tax – have disappointed

Political influence over economic policy since the 1990s has been dominated by Gordon Brown and George Osborne, one or other of whom were either chancellor or shadow chancellor for almost a quarter of a century. Despite their mutual antagonism, both followed a roughly similar formula, best summarised by Brown's words in his first budget: "In a global economy, long-term investment will come to those countries that demonstrate stability in their monetary and fiscal policies."

* This can be seen in the capital stock tables, see reference 6.

The records of both also, however, demonstrate what we have argued above, and lamented by Sir John Gieve in 2006 – that even when stable, this approach has not proven sufficient. It is instructive to examine key planks of UK investment policy of the last 25 years and why each has struggled to solve the problem: low interest rates, targeted financial support, tax policy and spending-based investment subsidies.

Lowering interest rates

Theory suggests that the expected pathway of interest rates should play a key role in determining incentives to invest. As well as their effect on the cost of finance, lower rates on borrowing make it more attractive, relatively, to invest in riskier assets that might contribute to future growth. But closer, empirical study – particularly when taking account of the "lumpy" character of investment – can find investment to be quite insensitive to interest rates.[25]

This is in part because policy rates are just as much an indicator of the prevailing economic environment as an independent variable. In light of this, the low interest rates seen in the UK and much of the developed world are not so much a policy choice or tool for achieving certain ends as a reflection of difficult or uncertain economic circumstances and low growth. Rather than low rates "driving investment" the causality is the other way round: a depressed state of confidence brings about a low appetite to borrow and take risks, which hurts growth and brings about looser monetary policy and lower central bank rates.

Another reason not to expect low policy rates to lead automatically to higher investment is that companies' cost of capital – and hence their decisions – does not simply track the risk-free rate. For each business this cost will reflect the blend of equity and debt employed in funding a scheme and will depend on the riskiness of the project. Cost of equity varies by companies – for large, listed firms, research by McKinsey puts it at around 5% in inflation-adjusted terms, which would normally mean 7–8% in cash terms.[26] Borrowing rates can stretch from 2–3% for the safest investments into double figures. Even though monetary policy can help lower the cost of capital, by boosting equity prices or lowering the yields on bonds, studies have found that the benefit of cheaper capital may still not overcome the effect of uncertainty.[27] Furthermore, the 'hurdle rate' most companies will look to exceed on their investments will often be well above their cost of capital: in the 10–15% range, regardless of what risk-free interest rate that economy theory says they should be comparing the return to.[*]

It is, therefore, no mystery that the period since UK interest rates dropped to nearly zero did not achieve anything close to a sustained investment boom. Nor is it a puzzle that the strongest year for UK capital accumulation in the past 40 was 1988, when both real and nominal interest rates were very high.

[*] Sharpe SA and Suarez GA, 'Why Isn't Business Investment More Sensitive to Interest Rates? Evidence from Surveys', *Management Science*, 2020, vol. 67, no. 2 finds it to be 14.1%.

Giving credit

The importance of finance to investment decisions makes the provision of financial help to businesses another popular recourse for policy makers. This was particularly the case just after the 2008 financial crisis – also known, tellingly, as 'the credit crunch'. Afterwards, surveys of credit availability were closely watched, and numerous initiatives launched to improve conditions for companies.

Such measures range from those aimed at helping the entire banking sector (such as Funding for Lending, launched in December 2012) to the creation of new institutions such as the British Business Bank, charged with targeted help into certain niches. The schemes under operation are too many and varied to list, and cover grants, loans, equity investment, state guarantees, a plethora of local schemes, sector-focused initiatives, funds for specific technologies, and much more.

The target is usually the smaller business

The rationale for government to intervene in this way is that private credit markets may not function perfectly, and so worthwhile projects may miss out on financing. For smaller companies, which typically account for around half of the investment in the economy,[*] it is more likely for market failures and gaps in provision of this sort to be a serious impediment to access to finance. Schemes like the Future Fund or Enterprise Finance Guarantee, and tax breaks such as the Enterprise Investment Scheme have been designed for smaller companies for this reason.

As well as suffering more market failure in the provision of finance, smaller companies also have a much lower tendency to seek it. Before the pandemic, few smaller companies used external finance at all, and of those that did it was mostly used for ordinary cashflow fluctuations rather than long-term investment. In the BVCA Small Business Finance Monitor, almost half of respondents are described as "permanent non-borrowers", and three quarters say they would choose a lower rate of growth to fund the expansion of the company from their own resources.[28] Until the pandemic, only about 3–6% of small companies reported a need for external finance (this figure rose to 15–18% during the worst of the lockdowns).

Getting smaller companies to invest more is no easy task, particularly in a risky environment. Studies by the IMF have shown that higher leverage after the financial crisis was associated with lower sensitivity to higher demand – that is, the prospect of more sales played less of a role in encouraging investment when a company had a riskier balance sheet. Since the pandemic, many small businesses have taken on debt for the first time through schemes like the Bounce Back Loan. According to Andrew Goodwin of Oxford Economics, the stock of loans to SMEs is 27% higher, and higher debt levels are more prevalent in sectors that suffered the greatest dearth of investment during the lockdown period.[29] Short of outright recapitalisation, this sort of impediment cannot be addressed through more generous credit (although some but not all of the companies with higher debt loads will have been able to save the cash and may be in a more comfortable position). Companies that want to work down their debt levels are averse to investment until comfortable with their leverage again.

* See IMF, 'Euro Area Policies', 2016, www.imf.org/external/pubs/ft/scr/2016/cr16220.pdf for EU evidence.

Therefore, it is unsurprising that studies have found that credit itself has a weak and ambiguous relationship with fixed capital investment. Naturally, a company suffering an actual 'credit crunch' will rapidly curtail investment, which increases the need for liquid funds. Sometimes it is important for the state to offer help in such circumstances. But simply making more finance available does not ensure that it will go into investment. Moreover, the UK's offer here is not so different from what other countries do and so this cannot explain the long-standing gap in business investment with its peers.

Even though larger companies have better access to external finance, surveys show that internal funds remain the biggest source of cash for investment, typically making up around 70%.[*] When external finance is sought, bank loans make up around half, with other channels such as leasing, bond issuance and equity making up the rest. Most large companies in normal times have relatively good access to banking or market-based finance if they choose to take it. The problem is inducing them to make that choice, and cheaper or more reliable finance will be just a part of the picture.

To summarise, as explained in a study by the Bank for International Settlements, "cheap and readily accessible finance has only provided a small direct stimulus to investment". To reinforce the point, what mattered more was improvement in expected economic conditions. Investment remained weak even when companies had abundant funds to pursue it; they preferred to buy back shares.[**]

Tax measures

Taxation clearly matters to a company when evaluating investment. But it is not as obvious that it is a decisive factor. Despite this, changes in tax policy have also long been a key recourse for chancellors seeking to encourage investment, including the most recent one. In his February 2022 Mais lecture the former chancellor, Rishi Sunak, talked of how "it seems likely... that a priority will be to cut taxes on business investment" – after questioning the effectiveness of the previous strategy of cutting corporate taxes[30] – while many of the candidates to succeed Boris Johnson prioritised cuts to corporation tax as a way of boosting economic growth.

The former chancellor had planned to announce changes to business taxation in the autumn. The Treasury has therefore consulted on a range of measures to come in after the expiry of the super-deduction, the temporary 130% relief on investment unveiled in March 2021. The super-deduction is expected to have cost the exchequer £21–23bn and was intended to drive a sharp but temporary rebound in investment.[31]

* Some international figures are found in: European Investment Bank, 'EIB Investment Survey', 2021, www.eib.org/attachments/publications/eibis_2021_european_union_en.pdf

** Even current profits were an unimpressive explanatory variable. Instead "results suggest that future, rather than current, profits drive investment". See Banerjee R, Kearns J and Lombardi M, '(Why) Is investment weak?', *BIS Quarterly Review*, March 2015, www.bis.org/publ/qtrpdf/r_qt1503g.pdf

In theory, investment should show a response to tax incentives of sufficient size. As explained in papers such as *Abolishing the Factory Tax* by the Adam Smith Institute, by lowering the cost of capital the government can render prospective investments more attractive.[32] A well-designed tax measure can also improve companies' cashflow, thereby lowering the financial strain of making an investment.

Evidence from some sources backs this up. The OECD found that corporate taxes reduce investment (and thereby productivity), and impede companies trying to catch up with the technological frontier,[33] while an *American Economic Review* paper examining specific tax incentives aimed at equipment investment found a strong positive result for eligible capital, with a particularly large effect when the incentives generated immediate cashflows.[34] In 2013 the UK Treasury, in the middle of a series of corporate tax cuts, published its own much-cited research arguing for a significant business investment reaction to tax reductions, using its own Computable General Equilibrium model.[35] The main result was that the 8 percentage point reduction in corporation tax would raise investment by 2.5–4.5% over the long term. More recently, the Decision Maker Panel (DMP) survey conducted for the Bank of England also foresaw a strong, positive reaction to the tax changes brought in at the March 2021 budget: respondents expected a 6% increase in investment for the two-year period over which the super-deduction was to operate.[36] Two thirds of this increase was expected to be new investment, not just the bringing forward of existing plans.

However, the evidence is not unambiguous, and the variety of recorded findings supports a major contention of this paper: that the influences on investment are extremely varied. A recent meta-analysis of multiple other studies has found the effect of corporate tax cuts on economic growth in fact to be highly ambiguous.[37] The wide range of results means it is not possible to reject the hypothesis that the actual effect is trivially small. They find evidence for "publication selectivity" – researchers being more prone to publishing results when they are positive on the case for lowering tax.

Robust experiments are not possible in economy-wide analyses. But – despite the optimism from the DMP – the case of the UK's super-deduction is not encouraging. Business investment has been weak after a year of its operation, and still stands 8% below pre-pandemic levels. In the words of Andrew Bailey, governor of the Bank of England, it "is not at the moment having the impact that was expected". The Bank has recently lowered the expected impact of the super-deduction from 19 to 11%.[38]

A fair assessment is hampered by compounding factors like the implementation of the free trade agreement with the EU, rising prices and the conflict in Ukraine. It is unwise to reach definitive conclusions from a temporary measure brought in at an unusual time. But the weak response casts doubt on whether replacing the super-deduction with the most generous option under consultation – the full expensing of capital investment – would be sure to produce a strong result sufficient to justify the expense. It shows again how far uncertainty can dominate other factors in deterring investment. The original, more optimistic assessments of the likely effect of the super-deduction were based on past periods that did not include volatile episodes like the resurgence of inflation, and war in Ukraine.

There are influential voices that disagree with such pessimism. The Adam Smith Institute paper argues that full expensing could produce investment that is 8% higher, leading to higher productivity of 3.5%. The CBI has produced survey evidence arguing the super-deduction was responsible for an impressive 41% of qualifying capital investment in the two years of its operation and suggest that business investment would be £40bn higher if a permanent 100% deduction replaced it – an extraordinary projection compared to the £11bn that the Treasury thinks it would cost.[39] But the CBI's survey of how companies might respond to a hypothetical tax incentive can only be speculative, like all such evaluations – and the spectacular implied response to tax incentives appears highly unlikely in light of how unimpressive the results of the super-deduction have been.[*] Nor do they fully evaluate opportunity costs – what *other* pro-investment policies might be possible with the fiscal resources taken up by a tax cut.

At the time this report was being put together, one of the most prominent economic proposals in the Conservative leadership election has been a sharp reduction in corporate tax. It is striking that business leaders have not welcomed this, with one bluntly explaining: "There is no company in the world that makes decisions on investment based on the headline corporation tax." Broader business conditions are far more important, the tax on any eventual profit a secondary matter.[40]

Government capital spending is not enough to lift private sector investment

The fiscal alternative to a tax inducement is public spending to boost the case for investment. The government has a range of funds that loosely fit this description, such as those invented to support regional growth, dubbed 'levelling up',[**] financing to bring research ideas to market, or parts of the broader R&D budget. But such direct subsidies can play only a small part in closing a gap in UK business investment.

First, while many studies find a positive relationship between government and private investment, the relationship is highly variable, and not so strong that a few billions more might close the gap. Taking the example of R&D, the What Works Centre for Local Economic Growth has carried out evaluations of how much public sector R&D boosts overall R&D spending.[41] Its conclusions from multiple studies are that the effects are likely to be positive – 'crowding in' is more likely to occur than 'crowding out'. But the ratio is not very high; one government report quotes a study finding $1 of public R&D elicits a further $0.70 from the private sector, on average.

* For a brisk criticism of this survey-method for evaluating additionality, the 2010 blog of Henry Overman is a must-read. Overman H, 'Bye-bye RDAs?', Centre for Economic Performance, 2010, http://spatial-economics.blogspot.com/2010/05/bye-bye-rdas.html

** HM Government, *Levelling up the United Kingdom*, CP 604, The Stationery Office, 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1052708/Levelling_up_the_UK_white_paper.pdf. Figure 2.2 lists 15 broad ideas deployed since 2011, amounting to some £45bn of commitments. £20bn were invented since 2011.

Second is sheer scale. Whatever the government deploys to directly subsidise business investment is at most a fraction of the total £95bn public capital budget, most of which goes on the state paying the private sector to produce assets – roads, buildings, defence equipment and so on – rather than subsidising business investment. A realistic estimate might start with the figure for "enterprise and economic development", which stood at around £3.5bn a year before the pandemic but was as low at £733 million in 2015/16.[42] Another way of coming at the number is to look at funds set up to encourage local economic growth. The National Audit Office evaluates such support at £18bn over the 10 years to 2020, or £1.8bn a year.[*] But not all these sums went towards investment incentives – they might have been put towards skills, infrastructure, cultural renewal or regeneration. There is also the R&D budget (£14bn, rising to £20bn in 2024). Again, only a portion is spent in direct partnership with business – much of what the government pays for does not have any kind of business link.

A conservative estimate of government subsidies for investment would therefore be much less than £10bn a year, against an investment gap that is a multiple of this. For government spending to close the gap significantly, it would need to increase by a high factor of what it currently invests.

Third, it is not easy to set up or increase funds intended for boosting private investment. Simply announcing more is just the start of the journey. The Institute for Government has written about how departments struggle to spend the capital they are allocated, hampered by over-optimism and a lack of skilled staff.[43] Vehicles like the Regional Growth Fund, which allocated over £3bn from 2011 onwards to boost private sector growth in lagging areas, were criticised by MPs for their tardy investment of funds. Two years after its first rounds, only 88 from 236 offers had been finalised, and only £470m handed out.[44]

In part, this difficulty is because it is harder to spend money when the project depends on the co-operation of a private sector partner. Faster delivery comes with the risk of serious waste, as the government has learned through some of its pandemic support schemes. The latest illustration of this is the slow and buggy delivery of the £4.8bn Levelling Up Fund, a successor to the RGF.[45]

* This does not include £10bn provided from European funds in the six years to 2020, which the government intended to replace with the Shared Prosperity Fund. National Audit Office, 'Supporting Local Economic Growth', 2022, www.nao.org.uk/wp-content/uploads/2021/06/Supporting-local-economic-growth.pdf

How the government should address weak investment

Stop undermining economic stability

The UK desperately needs a period of stable macro-economic management and a predictable business environment. Rishi Sunak, the former chancellor, on the very eve of Russia's invasion of Ukraine, acknowledged that "there has been a cloud of uncertainty hanging over the British economy in recent years", but immediately claimed the cloud is lifting. Unlucky timing is not his fault, any more than the way Russia's actions have triggered a global food and energy crisis and a spell of high inflation is. But if serious about boosting investment, his eventual successor needs to fight the impulse of the outgoing government towards capricious and confrontational behaviour seen most concerningly in its approach to the Northern Ireland protocol.

The Treasury should approach tax cuts or more generous allowances with caution

In his Mais lecture, Sunak questioned whether successive corporate tax cuts over many years achieved the step change in business investment that the Treasury had hoped for and declared that policy must be more "targeted and strategic".

This intention means that when considering how to improve the capital allowance regime, the government must be prudent. The evidence of the past 30 years is that a fiscal inducement, no matter how large, can struggle against a weak or volatile economy. The most expensive option for replacing the super-deduction – full expensing of capital – would have a peak cost of £11bn.[46] To (some) business ears, this may sound like a vital slug of support during a difficult time; to an economist it might sound more like the epitome of unaffordable deadweight loss, subsidising numerous schemes scheduled to go ahead anyway. If untargeted, over half might go into supporting houses or other buildings.

Recognition of this means that the Treasury should be drawn to the "better targeted options", in the words of its consultation. It lists many, including a "First Year Allowance" and shifts in the generosity of existing schemes. Other ideas that have been tried in the past include incentives aimed more narrowly at smaller companies. There is some evidence that the cashflow benefits stemming from inducements to investment matter more to smaller businesses, where large companies are more likely simply to pocket a subsidy without changing their plans.[47] Against this, the risk in limiting financial inducements to the smallest companies is that this creates a distortion in favour of *remaining* small; badly designed, such ideas can encourage the creation of multiple smaller companies just to exploit a tax break.[*]

[*] The most widely noticed such distortion in the UK is its very high threshold for VAT registration. See Seely A, *VAT registration*, House of Commons Library Briefing Paper no. 963, 2019, https://researchbriefings.files.parliament.uk/documents/SN00963/SN00963.pdf

This report does not have a view on which, if any, of these should be supported; the Treasury's open-minded consultation with business is the right approach to take. But in our view, the case for supporting the most lavish of the options available is weak, and the risks high. This applies as well to the extravagant promises of a lower corporate tax rate made by several of the Conservative leadership contenders.

More emphasis must be placed on non-tax options

The consultation that Sunak launched at the spring statement in March contained an explicit invitation for business to educate government on how investment decisions are really made. This should draw attention to the non-tax options also referred to in the consultation. Relying wholly on tax policy and hoping for a stable economy is a classic example of the "one-club golfer" trying to navigate varied terrain.*

The influences on business investment are many and varied. This is the first reason that a good business investment strategy cannot be just a matter for tax and macroeconomic policy. Individual projects usually succeed or fail for idiosyncratic reasons, related to conditions in their industry, and policies within a particular department's purview will often be more relevant than the broader investment environment. Even when summarised with terms such as 'stability', what it means for the business environment to be stable will vary depending on the actual investment being considered; conditions for wind power might be great but awful for the automotive sector, for example. Therefore, 'non-tax options' should not necessarily mean government spending, but anything that may affect a project's prospects, which we illustrate below.

Other factors of production, such as labour, can be decisive in affecting investment

Policy makers need good insight into why particular investments do not proceed, and the reason might sometimes lie in one of the other essential 'factors of production' – such as labour force, or infrastructure. The availability of skilled labour is often cited. Although capital and labour are often portrayed as competing means of delivering a product, they are also complements. For example, as reported by the *Financial Times*, Japan's push to boost investment in semiconductor manufacture depends on industry securing sufficient supply of qualified engineers.[48] The UK government's Nuclear Sector Deal, developed in partnership with industry to raise productivity and secure more domestic work in the sector, recognised the need to plan to replenish the ageing nuclear workforce as part of the broader revival of the sector.[49] Without skills, the case for investment is harder to make. Another good example is the availability and cost of energy. Some assets, such as a battery factory, electric arc steel mill or data centre, are particularly energy intensive, and electricity prices will be decisive in making the investment case.

* A phrase that is owed to Edward Heath, in his criticism of Chancellor Nigel Lawson's reliance on interest rates. House of Commons, *Hansard*, 20 March 1989, col. 750, https://publications.parliament.uk/pa/cm198889/cmhansrd/1989-03-20/Debate-2.html

Government's broader objectives must be considered

The second reason to look below the level of tax and macro-economic strategy is that, despite its abolition of 'industrial strategy' as an organising principle, the government clearly wishes to pursue specific objectives for the economy. For example, the *UK Innovation Strategy* (published mid-2021) contains seven technology families for special emphasis. Growth sectors like FinTech and life sciences have generated their own strategy documents, while key agendas like energy security and climate change have been the subject of important strategies, led by No.10.

Some of these may change with a new prime minister. But no matter what kind of government is in power, the same challenges will need to be confronted, and many of them should be seen in part as business investment challenges. The UK needs billions for net zero infrastructure, housing stock and zero-emission vehicles. It wants a step change in R&D investment to restore productivity, and rebalanced geographical investment to unlock the potential of areas in need of 'levelling up'. Its ageing population needs secure and remunerative pensions, and a social care system that is fit for purpose. These aspirations affect policy areas as broad as health care, transport, energy, local government, science and the environment. Achieving them means the involvement of all the departments responsible, not just the one charged with achieving tax and macro-economic stability.

In some cases, there is an alignment between a high-level policy goal and a type of investment: foreign direct investment (FDI) for the Global Britain agenda, R&D investment for the 'science superpower', venture capital and start-up support for the goal of boosting enterprise.

Box 1 **Investment varieties for government priorities**

Global Britain – foreign direct investment

Recent figures suggest overseas investors own around £2tn in UK assets. Foreign companies tend to be innovative and expansionary in outlook and their arrival in a new country can be a useful channel through which new ideas are transmitted. The government cites research showing that they tend to be more productive and create valuable competitive pressure on domestic incumbent firms.[50] Attracting more foreign direct investment is a responsibility of the Department for International Trade (DIT). Targeted spending, either through DIT or new funds such as the Global Britain Investment Fund, can boost the UK's appeal, and are better able to avoid the risk of deadweight that can come with tax measures. But, as with all investment, overseas capital responds to the quality of the business environment – the skills, infrastructure, market access and ideas it might access by investing here.

Enterprise and innovation – venture capital

Venture capital (VC) is another source of business investment habitually valued to a degree disproportionate to its sheer monetary weight. According to *The Economist*, America's VC funds have seeded firms that are today worth at least $18trn. Indeed, the computer revolution proceeded in tandem with this form of finance.[51] It can play an outsized role in economic change, through backing improbable but potentially transformative ideas at their early stage – a more recent example being the companies behind mRNA-based Covid vaccines, supported by VC during long, revenue-less years.

As Rishi Sunak recently observed, the UK already enjoys a strong performance for attracting VC investment. The numbers involved are not large enough to make a serious dent on the UK's overall shortfall of investment,[*] and with tax reliefs already highly competitive[**] the case for significantly increased fiscal support may not be strong. Institutional creations like the British Business Bank enable the government to intervene where better opportunities may lie, or specific weaknesses exist. But it also has other levers to pull, such as efforts to encourage more pension fund investment in growth companies and creating an immigration system that encourages talented entrepreneurs to move to the UK.[52]

Science superpower – R&D

Revisions to statistical methodology mean that spending on R&D now counts as business investment. Increasing it has been a key UK government goal since 2016, with higher R&D seen as vital to economic progress, unlocking new innovations and improved processes. Social returns to R&D greatly exceed private returns (Covid vaccines again grab the headlines here), which is what justifies the government putting extra resources into securing more than would happen if it was simply left up to the free market.[53] An exact relationship between R&D and growth is impossible to pin down. However, the studies that have attempted this have found returns that far exceed those found in ordinary investment, with that carried out by the private sector the most significant.[54]

Government support for R&D is extensive, above all through its own rising spending but also R&D tax credits. These are under fresh examination, in light of an unimpressive performance in terms of business investment relative to tax cost.[***] As with venture capital and FDI, the conditions for boosting the quantity and impact of R&D go beyond the purely fiscal, and reach into the broader business environment, in particular the strength of scientific networks.

* The extent of VC in the UK depends on definitions and boundaries. Start-up companies have attracted £1–2bn a year, whereas 'scale-ups' tend to see £15–20bn. See BVCA, 'Investment Activity', 2021, www.bvca.co.uk/Research/Investment-Activity

** According to Sunak himself. See HM Treasury and The Rt Hon Rishi Sunak MP, 'Chancellor's opening address to London Tech Week', Gov.uk, 13 June 2022, www.gov.uk/government/speeches/chancellors-opening-address-to-london-tech-week

*** HM Treasury and The Rt Hon Rishi Sunak MP, 'Chancellor's opening address to London Tech Week', Gov.uk, 13 June 2022, www.gov.uk/government/speeches/chancellors-opening-address-to-london-tech-week. Sunak said: "In the UK, business spending on R&D amounts to just three times the value of the R&D tax relief. The OECD average? Thirteen times."

The burden is not only the Treasury's to bear

What this makes plain is that raising investment should not be treated as wholly or even mainly the business of the Treasury. The traditional lens through which business investment is seen – as a high-level variable, dependent on sound management of the macro-economy, with tax policy the main incentive – has led to it being treated as the chancellor's sole preserve. It isn't. It is a whole of government challenge; not a single problem but many different problems. The Treasury may control some of the biggest levers for boosting investment. They are certainly the most expensive. But if Treasury policy could address this issue on its own, it would have been dealt with long ago. Other departments have both an interest in improving investment conditions in their areas, and a role in encouraging it. Good and bad practice across the government can have an influence.

In fact, it is possible that placing too much of this agenda within the Treasury's purview might backfire. Supporting business investment through tax breaks takes away fiscal space from spending budgets, all other things being equal. This can lead to many of the behaviours that businesses find damaging to certainty: shorter term budgets, unpredictable changes in policy, and a lack of long-term commitment.

Positive and negative lessons for departmental influence on investment

Recognition of this requires a change in mindset. Rather than trying to solve a single problem, the government needs a granular view, one that evaluates blockages to investment at a more micro level: the level of the sector, industry, technology or even firm. The policy solution in each case will be different, but an examination of examples of good and bad practice (see Tables 1 and 2, from page 29) does suggest common themes behind the successes, and also the failures.

There is a clear theme to how investment certainty has been undermined at a micro level. The failure to stick to a clear direction and fulfil policy is very damaging to businesses whose plans are dependent on government actions.* These individual failures mirror a broader inconsistency seen in the approach to industrial strategy, which has been taken up and dropped twice in the past 15 years – a terrible level of volatility, when many companies plan investments that endure for decades.

In terms of positive lessons, more aspects emerge.

Funding stability

The most important consideration for a business is the certainty of being paid back. Funding stability means developing reliable contracts immune to political interference and other hard-to-hedge risks. In terms of new innovations, the best example is the 'contracts for difference' system introduced in 2011 that underpins renewable electricity investment by guaranteeing a fixed price for generation.

* The CBI has voiced its concerns here. See Thomas H, 'Business hopes for UK government action are at rock-bottom', *Financial Times*, 14 June 2022, www.ft.com/content/b8152068-c902-4132-a3e2-03fe970d5eae

Table 1 **Government actions that improve investment confidence**

Good practice example	Policy area	Detail	Why it is helpful
Creation of the Office for Low Emission Vehicles	Future transport technology	Joint units of BEIS and DfT, set up to co-ordinate and deliver policy in low and zero emission vehicles	Provides a single point of contact for business and scientific organisations for policy in these evolving areas. Signals commitment to the technologies, such as through development of phase out of emitting vehicles. Helped in the creation of the London Electric Vehicle Company.
Future of mobility regulatory review	Future transport technology	Rolling series of reviews across various technological areas such as e-scooters, greater use of data, autonomous vehicles, eCargo bikes, mobility as a service, etc.	Helps to reduce regulatory uncertainty is frequently a barrier to investment. Co-ordinates technological development with necessary regulatory change.
The Contracts for Difference system for electricity generation	Low carbon energy	Provides a long-term, fixed-price contract for electricity generation by making up the difference between the variable market price and agreed contract price.	Ensures predictable revenues for investors in technologies like offshore wind, solar power or nuclear energy. This enables the investors to finance projects that are usually high fixed cost, low variable cost. Has helped to underpin high offshore wind installation and tens of billions of achieved and future investment.
The creation of the Oil and Gas Authority	Energy	Set up to maximise recovery of hydrocarbons from UK's North Sea assets.	Provides a convening and co-ordinating role between oil and gas operators, sharing best practice, improve procurement and driving efficiencies in extraction of resources and decommissioning. Point of expertise and delivery on the regulatory framework, including on new technologies such as carbon storage. Has helped achieve significantly increased extraction and efficiencies.

Good practice example	Policy area	Detail	Why it is helpful
The creation of the National Infrastructure Commission	Infrastructure	Executive agency of the Treasury, set up to make recommendations and determine priorities in infrastructure investment.	Improves certainty in business by providing a single locus of impartial advice to government and enhancing policy stability. A centre of expertise within government capable of in-depth study and assessment of long-term needs.
The creation of the Office for Life Sciences	Health care	Joint unit of BEIS and DHSC, developing and delivering on strategies aimed at improved health and economic outcomes.	A single point of contact for business navigating life sciences policy and investment issues in government. Source of expertise and impartial advice to government. Creation of strategies helps to improve policy certainty.
The Life Sciences Vision	Health care	A strategy document for the development of the UK's life sciences sector.	Provides clarity over the areas of focus the government has chosen in a large and diverse industrial sector. Sets out missions that underpin broader government health and industrial policy in this area. A tool for helping to co-ordinate increasing UK R&D investment.
Longer-term planning in UKRI	Science support	The major research funding body, UKRI, has been granted a three-year budget and published a five-year strategic plan.	Science projects and associated support are inherently long term. Longer funding profiles enable grant awarders and industry to plan with confidence, rather than rely on constant appeals to the Treasury or other parts of government.
The Aerospace Technology Institute	Industry, aerospace	A £1.6bn commitment from government matched by industry to invest in technology challenges in aerospace, originally started in 2012.	A source of funding certainty for technologies that are necessarily very long term in cost and impact. Alongside the Aerospace Growth Partnership, provides a locus for government and business to work together to maintain competitiveness of UK aerospace industry.

Good practice example	Policy area	Detail	Why it is helpful
Catapult centres	Various technologies	Organisations created since the early 2010s that convene industry, research organisations and academia and host infrastructure in order to push innovation in key technologies.	Host important infrastructure relevant to each R&D area. Co-ordinate activity with and between companies, particularly smaller businesses. Provide longer term commitment and expertise in technology areas.
Thames Tideway Tunnel financial structure	Waste water infrastructure	A financial innovation based on an investment vehicle and contributions from customer bills.	Greater certainty of investment returns lowers the cost of capital demanded by investors and helps to ensure the project's delivery, which was challenging given lack of financial room for manoeuvre in the water company.

Table 2 **Government actions that damage investment confidence**

Bad practice example	Policy area	Detail	How this is damaging
Constant delay with regard to nuclear and other big energy projects	Electricity generation	The UK has agreed delivery of only one major nuclear project in decades. It has also shown inconsistent interest in small modular reactors as a technology, and took years to decide negatively on the Tidal Lagoon Project in Swansea. Attempts to support carbon capture and storage have repeatedly failed	With several large projects being under consideration, including sites at Wylfa, Moorside and Sizewell, and hundreds of millions invested, the UK government has failed to commit to new projects. SMRs have been subject to stop-start policy interest since 2015 as well. This has increased the riskiness and therefore cost of nuclear power in the UK, and undermines the private sector case for building capacity. Failed ventures like the CCUS competition ended in 2010 costs private sector in bidding expenses and raises risk.
Audit reform	Professional business services	Since the bankruptcy of Carillion in 2018 there have been several high-level reports into the future of audit and its regulation. But government has blown hot and cold on the subject of audit reform, and recently dropped the audit bill from the Queen's Speech.	Strong and reliable audit is important to functioning markets. Reform is needed to maintain confidence after several high-profile audit failures. Policy drift spreads uncertainty in professional business services, where the UK is a market leader.

Bad practice example	Policy area	Detail	How this is damaging
Employment law reform	Business environment	The government has commissioned reviews of employment law three times since 2012 (two external, one internal), and in 2018 published a Good Work Plan to implement those of the last, the Taylor report. Despite promising an Employment Bill in 2019, it has not been produced, although some elements of the GWP have been passed.	The labour market is the largest part of the economy, and the rules that govern it are important for any company considering an investment in the UK. Although it is impossible to pin any particular investment failure on an inconsistent approach to employment law, constant shifts in strategy will have undermined the ability of the service sector to plan ahead. The UK has oscillated between an emphasis on flexibility and commitment in labour law. Either approach might have merits, but a failure to commit to either is the worst of all worlds.
Inconsistent policies towards insulating homes/ housing stock	Housing/ low carbon policies	Two failed home insulation schemes (the Green Deal, the Green Homes Grant) since 2010. In 2015 the Zero Carbon Homes policy was abandoned. Net zero legislation would imply fundamental decarbonisation of housing stock	Loss of regulatory certainty provided by zero carbon homes associated with significantly higher carbon emissions, and also undermined supply chain for low-carbon building products. The poor take-up of the Green Deal (under the coalition government) and botched Green Homes Grant undermined confidence among householders and industry.

Longer-term budgets

Government departments often have objectives that stretch into the distant future yet with no confidence of their budgets beyond a year or two. This uncertainty affects businesses engaged in activities affected by the departments in question. Considerable reassurance can be achieved through the government awarding longer-term budgets, particularly in areas like science and innovation where the timescales are naturally long. A good example is the creation of the Aerospace Technology Institute, which was conceived in 2012, funded jointly with industry – and still supporting investments a decade later. Clearly, this can be difficult, as this involves making a commitment that binds future governments and restricts their room for manoeuvre should they want to pursue a different policy approach – or if the assumptions behind the original commitment change. But in return for this commitment, the government encourages more business involvement, and can get more bang for its buck.

Supportive, expert organisations

Businesses engaged in activities affected by government policy are easily deterred by the 'unknown unknowns' that come with handling political, policy or regulatory risks. For major industrial sectors, investments can often cross departmental lines, so that the business concerned needs to be reassured of policy risks in multiple parts of Whitehall. Creating supportive, expert organisations can be a useful aid to investment. The Office for Life Sciences (a joint creation of the business and health departments), the Office for Low Emission Vehicles and the Centre for Connected and Autonomous Vehicles play a crucial 'hand-holding' role in acting as a guide to businesses looking to invest, and their champion within government.

Such bodies also help reduce uncertainty by working with government to produce strategies and long-term programmes of work, such as the series that has underpinned policy towards the life sciences sector. They also help to generate lasting expertise and familiarity with a specific industry – valuable when the standard approach in Whitehall, and the Treasury in particular, is to rotate talented officials through multiple roles. From this point of view, the creation of the Office for Investment is a welcome move.

Conclusion: face it, this is industrial strategy

The government is right to want more business investment in the UK. But it cannot confidently expect to achieve this through its traditional levers of macro-economic stability and tax incentives alone. Instead, it must look more diligently at the economy at a more granular level and consider a broader approach, with some clear themes:

- To take a holistic view of the needs of a sector, technology or region
- To consider the government's own chosen strategic objectives
- To operate beyond the walls of just the Treasury, involving all industry-facing departments
- To create plans and stick to them, and avoid arbitrary, confidence-sapping changes to the business environment
- To aim for long-term funding stability (where government money is involved) and durable institutions with permanent expertise.

Taken as a whole, these are similar to the approach we urged on the government when writing about industrial strategy, such as to "adopt a systematic approach that focuses on institutions, rather than inspired ad hoc political decisions" and "within the limits and constraints, commit".[55]

That is perhaps the simplest way of summarising the views of the Institute for Government on how to encourage businesses to invest in Britain again: it requires an industrial strategy approach.

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