Investing for the long-run

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Investing for the long-run

CHAPTER TWO

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"Low investment is the proximate cause of low productivity and the UK's weak growth performance. But low investment itself is due to many factors, implying that no single reform is sufficient to resolve the problem while many may be necessary."

Investment lies at the root of economic growth and prosperity. When an economy channels funds into capital, it creates the building blocks for a higher level of productivity in the future, and more diffusion of ideas and innovation that underpin technological progress and higher wages.

The British economy has suffered from chronic levels of underinvestment compared to those economies that have delivered greater improvements in living standards over the past quarter of a century. The puzzle of underinvestment is all the greater considering the sharp fall in the cost of capital and in the relative price of many capital goods.

This chapter explains how investment matters for productivity and economic performance, while also exploring the possible reasons for this persistent underinvestment. We also outline directions for policy reform, discussing the steps that need to be taken to raise the quantity and quality of investment required for the UK to keep up with comparator nations.

Economic performance

A country's long-run economic performance is crucially dependent on investments that build the stocks of physical assets (such as structures, equipment, and infrastructure), knowledge assets (technology and work practices), and human skills.

Looking at the process of economic growth in the context of the industrialisation of the UK since the 18th century, the critical role of investment becomes very clear. Indeed, this role has formed a blueprint for emerging economies around the world. There are three main channels through which investment in these assets determine performance and well-being.

The first is that these assets support the services that are critical to households and our day-to-day well-being. Housing, utilities such as electricity and water, the transport system, and the broader provision of public services all depend on stocks of equipment, technology, and knowledge. Much of this infrastructure is supplied by the public sector and is closely related to the degree of state capacity and the ability to raise revenue.

The second is that investment is necessary to create jobs. The labour force is growing, and there is inevitable turnover of firms and of people within firms. Creation of new jobs requires investment to provide accommodation, equipment, and working environments for new employees. Typically new, increased investment leads to better jobs at the productivity frontier with higher wages. The need to match each worker with a greater level of capital is critical.

And third, investment puts new technologies into use. Low investment means living and working in environments with old, outdated and possibly unreliable equipment and techniques. As new technologies appear they are generally embodied in – and often only accessible through – new equipment. This applies to new 'hard' technologies (machinery, structures, ICT hardware), and often also to 'soft' technologies (business models, ways of working, and computer software).

It also certainly applies to the technologies that will be required to attain net zero, as Chapter Seven will discuss. Getting close to the technology frontier requires a continual process of investment. Low and stalling levels of investment are consistent with lagging behind the frontier and a fall in national income per head relative to other OECD economies. This has become the UK story, especially since the global financial crisis.

Low investment rates

In recent decades the UK has had low investment rates in many of these assets. This secular pattern has been associated with 'short-termism', where society has tended to choose consumption over long-term investment, as well as impose high rates of discounting the future. So the UK's capital stock has fallen relative to that typically found in other advanced economies.

This preference for consumption over investment has become a central concern, as it has also resulted in a secular decline in the UK's net international investment position, the fall in the government's net financial worth, and an increase in indebtedness.

UK Investment: the facts

Looking at the composition of output in the UK over the past half century or so, Figure 1 shows the deviation of the shares of consumption, investment, and net exports from their average values over the last 50 years. From the period of financial deregulation in the 1980s onwards the share of consumption has trended up while both net trade and investment have, if anything, trended the other way.

These facts underly the observation that the UK has the mix between consumption and investment wrong.

Accordingly, the overall investment rate in the UK fell from a high of around 23% of GDP in the late 1980s, to around 17% from 2000 onwards, i.e. falling to just three-quarters of its previous share. Investment rates in other G7 countries remained largely in the range of 20% - 25%, as can be shown in Figure 2.

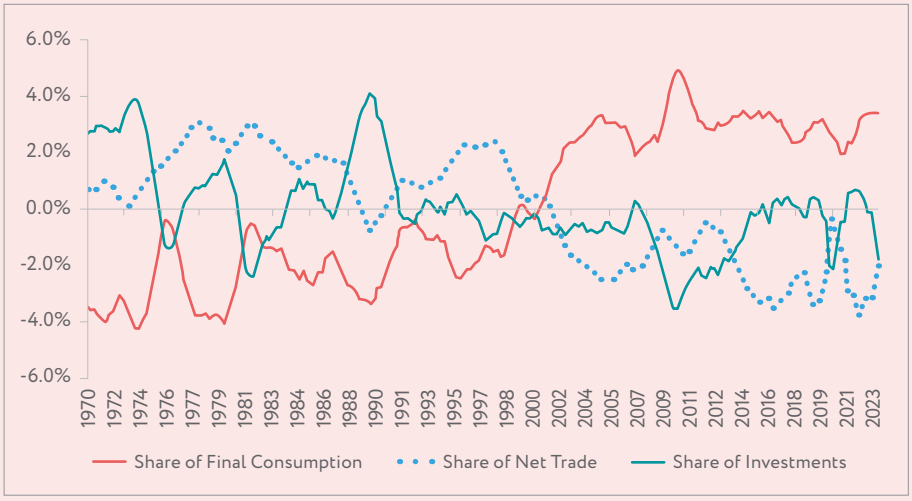
Equipment and machinery

This decline was dominated by a fall in investment in equipment and machinery (including ICT equipment), falling from around 8% of GDP in 1987-97 to less than 4% from 2009 onwards, the lowest share in the G7.[1] Much of this consists of business investment, the total of which fell from around 12% of GDP to 9% in the three and a half decades.

Much investment is now in hard to measure intangibles – the stocks of knowledge, patents, brand value and goodwill – created or acquired by companies. A large component of this is intellectual property, broadly constant at around 4% of GDP, so slightly increasing its share in investment as a whole. However, having been above the average for G7 countries in the 1980s, the UK is in this respect also now well behind the share in the US, Japan and France.

"From the period of financial deregulation in the 1980s onwards the share of consumption has trended up while both net trade and investment have trended the other way."

Figure 1: Consumption, trade and investment shares to GDP (% point deviation from mean) (1970-2023)



Source: Chadha and Samiri (2022)

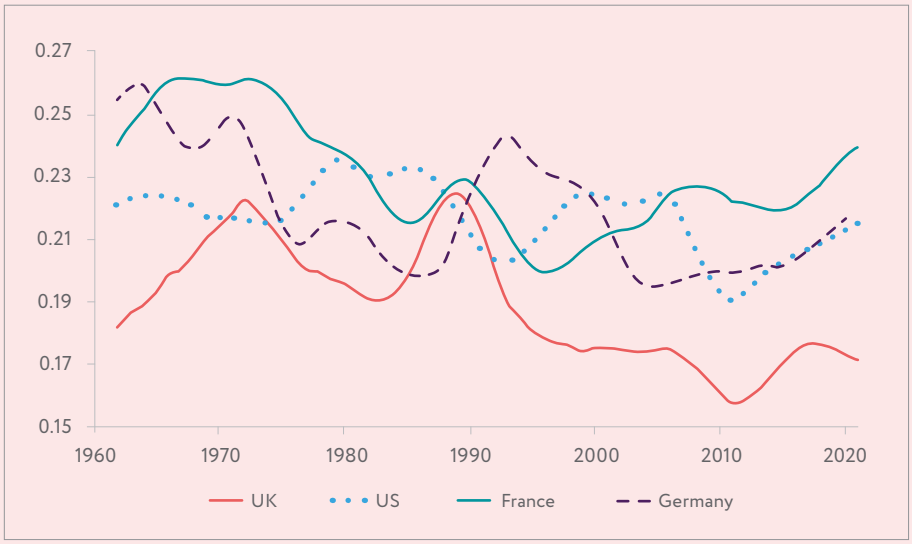


Figure 2: International comparison of investment as a percentage share of GDP (1960-2021)

Source: Chadha and Samiri (2022)

Technological progress

In the long-run the main drivers of productivity are technological progress and innovation, as described in Chapters Four and Five. These are embodied in new investment and are fostered by investment in research and development. Most of the new technologies employed in any one country like the UK have been developed in other countries, but an active domestic R&D programme is important, both to produce technologies required for UK firms to be internationally competitive, and to facilitate the absorption and adoption of technologies developed elsewhere.

Over the past 30 years the share of R&D expenditures to GDP has been falling in the UK, to below 2% of GDP. While R&D data is currently under revision (see Chapter Four), it suggests that the UK is relatively low compared to other G7 countries, with Japan spending 3.5% of its income on R&D and the US and Germany spending approximately 2.8%.

Accessing credit

The uncertainty and high risk linked to R&D investment constrains firms in accessing credit, and they cannot generally take into account the positive externalities that are generated by such investments when making business investment decisions.

This suggests that current levels of R&D expenditure in developed economies are less than desirable and that long-term growth prospects could be significantly increased if public policies focusing on enhancing R&D expenditures were to be introduced (IMF Chapter 2, 2016). In the UK more than 45% of R&D projects are funded by business enterprises while 33% comes from the public sector. The data also shows a positive relationship between public R&D and private R&D which suggests the two are complements, not substitutes. Government intervention should not only consist in reducing market frictions. Public funding supports investment projects along the whole innovation process.

"The data also shows a positive relationship between public R&D and private R&D."

Public and private sector investment

The share of GDP accounted for by net public investment dropped from 4.5% of GDP on average between 1949 and 1978, to 1.5% between 1979 and 2019. A considerable part of this decline can be explained by the privatisation programme of the Thatcher administration. The subsequent disappointing investment performance and investment by utilities and the transport network raises questions about their regulation.

It also seems that attempts to control public debt, especially since 2010 and the establishment of the Office of Budget Responsibility (OBR), may have created an incentive to trim public investment at successive fiscal events. The remit of the OBR, which is focused on short-term output and debt projections, does not allow for such investment to feed through into the supply side of the economy and hence drive up income, the denominator of the debt to GDP equation.[2]

Green Book

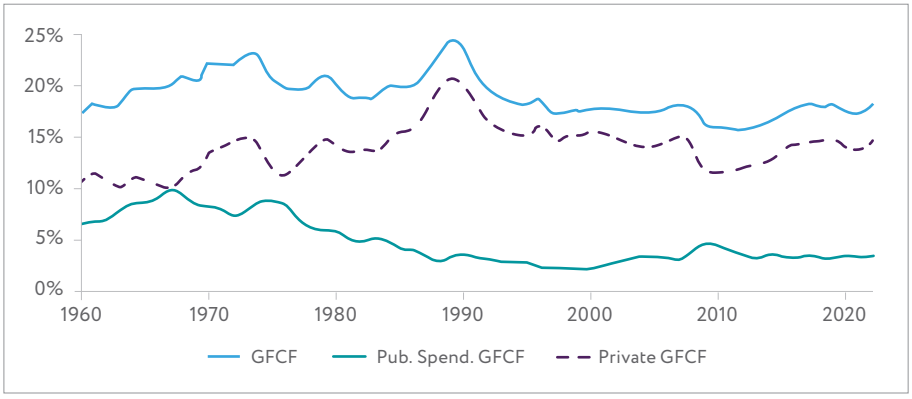
A move to what is termed 'dynamic scoring' may also point to the need to reconsider how the Treasury's Green Book appraises potential investment projects and ultimately how the UK manages large scale infrastructure projects. These typically run late and tend to be very expensive.

If we compare the typical UK project that does not have a credible commitment attached to it with the example of East Germany's reconstruction, which had both huge funding attached and a long run commitment that outlasted any parliamentary cycle, there are important lessons to learn.

Specifically, the East German process was built on a national consensus to build incomes in the East following re-unification with some €2 trillion spent over 1990-2014.[3] Indeed the key programme, Aufbau Ost, was launched contingent on the agreement that it would only end when the task had been completed, and not against an arbitrary timescale. This compares favourably with the stop-start process we typically see in the UK where ongoing project management is subject to new political or financial hurdles that create uncertainty and delay, ultimately affecting the private sector's willingness to invest in complementary assets.

To the extent that the public sector should be reducing uncertainty for the private sector with well-designed public investment, which is likely to have the largest multipliers on overall economic activity, the UK has a problem. Crucially, public investment should play a role in improving the environment for business, and so support a higher level of private investment. This will occur particularly if there is a general sense that the investment will go ahead and be delivered. Uncertainty over completion, underlined by successive cancellations of parts of the HS2 project, limits the positive response of the supply side.

Figure 3: Total investment (% of GDP) split by public and private (1960-2022)



Source: Chadha and Samiri (2022)

"Brexit has also raised the cost of exporting, and has been particularly damaging to functioning within Europe-wide supply chains."

Private sector

Private investment decisions depend on the balance between the costs of undertaking a project, and the future benefits expected to accrue to the investor. There are, at risk of over-simplification, three factors that tip this balance in favour of a firm making an investment.

The first is an expectation of growing domestic demand for the products or services it provides. The second is the prospect of using the investment as a base to supply export markets or participate in global value chains. This is particularly important for multinational firms engaged in foreign direct investment (FDI) which supply many markets and have a wide range of possible locations from which to operate. The third is simply cost reduction - even if there is little prospect of growing the firm it may be profitable to install new technology, replacing old equipment or more costly workers.

Austerity and Brexit

The first two of these motives have been undermined by events of the last 15 years. Austerity, in both its post-financial crisis and current forms, leads to expectations of low growth of domestic spending, and this in turn discourages investment. And Brexit, elevating levels of uncertainty, has also raised the cost of exporting, and has been particularly damaging to functioning within Europe-wide supply chains.

Much of the UK's past inward FDI has been described as 'export platform', for example as Japanese firms use the UK as a base from which to supply the European Single Market, a motivation that is now much reduced. While these two factors are likely to have depressed investment, and to continue to do so, the timing suggests that they are not a full explanation of the UK's investment record. What other underlying factors might be at play? There are many suspects, having a combined impact, rather than a single striking cause.

The cost of investment

Is it more difficult, or more expensive, to undertake an investment project in the UK than a similar project in other countries? Evidence here is fragmentary, covering many aspects of the obstacles to, and costs of, new investment projects. Land is expensive (in some places) and planning procedures often slower and more burdensome than elsewhere. Efficiency in the construction sector varies widely, and the lack of domestic capacity for undertaking major projects has reduced competitive pressure and raised construction prices.

Some evidence suggests that the combination of land and building regulations and construction costs creates significantly higher project costs in the UK than elsewhere. Upgrading equipment – for example, ICT services – may also face relatively high costs. Studies of the adoption of new digital technologies often point to the shortage of skilled workers able to install and operate the new tools as obstacles to investment in them (Chapter Five).

Private returns to investment

We have already referred to the importance of reaching markets (international or expanding domestic markets) in shaping the benefit firms expect to reap from investment, and suggested that austerity and Brexit have damaged prospects. The competitive environment also matters. If firms face too little competition then their most profitable strategy might be to restrict output and raise prices, rather than lower costs or improve quality in order to grow market share.

What about investments designed principally not to expand capacity but to reduce operating costs? There are two sides to this question. One is that some costs in the UK are already low, so the pay-off to reducing them further is small. If low-skilled labour in the UK is cheap (and flexible, with flexible contract terms) why bother to invest in equipment that might replace labour?

The other side is that some elements of costs in the UK are high, and are outside firms' control even if they do invest. This is particularly the case for complementary public investments. Poor transport infrastructure (for moving goods to market and people to work), high regulatory burdens, high energy costs, high housing and rental costs, and high costs of skilled workers make the UK a less attractive place for internationally mobile investment, and may also reduce the return on investments more broadly.

Capital and finance

There is an extensive literature on the difficulties faced by firms in raising necessary finance. The venture capital market in the UK is deeper than in other European countries, although regionally concentrated in the South East, and much thinner than that in the US. On the other hand, there are frequent and long-standing claims that firms, SMEs in particular, are constrained by the difficulty of raising funds for long-term investment.

Intangible investments are particularly hard to finance as they lack the collateral provided by tangible assets, and Chapter Three discusses further the constraints on investment by firms, especially SMEs.

Larger firms can have their own bias to short-termism, as the tenure of top managers is often short, and financial markets may create pressure to deliver short-run financial results designed to maximise share prices. In the US and UK the role of private equity is often viewed as a damaging aspect of 'financialisation' as debt is loaded onto companies to finance short-term payouts. In the Scandinavian model, however, private equity has been used to fund long-term growth, with beneficial effects for both firm expansion and profitability.

Uncertainty and short-termism

Uncertainty deters investment - it causes plans to be postponed, and the additional risk contributes to a high hurdle rate of return required to initiate a project.

A particular area in which the UK has created a high degree of uncertainty is in government policy. We noted above the decline of public investment, but the uncertainty problem extends to fiscal matters (including corporate taxation), to strategy to particular sectors, and to regulation more broadly.

The government-related uncertainty in UK industrial policy is documented by Coyle and Mukhtar (2023),[4] who point to a lack of coordination between different parts of government and other stakeholders, and an acute lack of consistency. Industrial strategies and regulatory measures have been subject to frequent change, creating uncertainty and preventing government from learning from experience over time.

An important aspect of policy uncertainty is the tax treatment of investment. Can capital expenditure be offset against future revenues? The UK regime has been through multiple changes, adding an unwelcome level of uncertainty. Although the current UK system is relatively generous, it has gone through at least 18 and as many as 24 changes since 1984 and that complicates long-term planning.

Finally, there is the issue of management quality and ambition. This varies hugely between firms, although there is evidence that UK management quality is low by international standards. In smaller firms managers may be overwhelmed by day-to-day running of the operation, or preoccupied with ensuring survival of the firm. Both of these factors create 'short-termism'. The strategic thinking about the long-run that is needed for investment is absent, and where it does take place it might be based on criteria that are biased towards short-term projects (e.g. the pay-off period criterion rather than the full value of a project over its lifetime).

"In smaller firms managers may be overwhelmed by day-to-day running of the operation, or preoccupied with ensuring survival of the firm."

Policy implications

The failure to undertake one particular investment project that would – under other conditions – have been profitable, means a loss of this profit but has little wider effect, except perhaps in the local economy.

Importantly, though, failure to undertake many projects – and aggregating up to the national level – does not just mean profits foregone, but means lower wages (and tax revenues), and indeed lower income per head. If a place is a desirable location for investment and one where productivity is being rapidly upgraded by the use of new technologies, then its international competitiveness and employment prospects improve. As this happens so wages rise, transmitting the benefits to wider society.

Low investment impact

Rough estimates of the effects of low investment on income can be derived from aggregate level data. If the UK capital stock is around 25% lower than comparator countries, this reduces the amount of capital per worker, which translates into around 8% lower per capita income. If it results in older capital stock and hence less up to date techniques, then this might be expected to cost around a 7-10% loss of income.

Research by the Resolution Foundation[5] suggests that almost all of the 15% gap between the hourly productivity of UK workers and those in France is accounted for by lower capital per worker. Additionally, growth accounting exercises that attribute growth outcomes to the different inputs suggest that more than a third of the slowdown in labour productivity growth since the global financial crisis can be accounted for by capital shallowing.

Low investment is the proximate cause of low productivity and the UK's weak growth performance. But low investment itself is due to many factors, implying that no single reform is sufficient to resolve the problem while many may be necessary. Priorities for change lie in three directions.

REDUCE THE COSTS OF UNDERTAKING LARGE INVESTMENT PROJECTS

One aspect is the simplification and speeding up of planning, land use, and other regulatory obstacles to the design and implementation of investment projects. Another is to build the skill base required to install and operate a modern capital stock, and the competitive supply chain that can deliver projects effectively. Bottlenecks in finance need to be identified and addressed.

CREATE A STABLE AND EXPANSIONARY SET OF ECONOMIC POLICIES

Allow businesses to formulate long-run plans with a reasonable degree of confidence. One aspect of this is at the macroeconomic level, to nurture expectations of both growth and financial stability. The other aspect is the micro-economic policy environment for industrial strategy, R&D, tax, and trade policy. Confidence needs to be built in the quality and stability of the new policy structures erected.

RECOGNISE THAT INVESTMENT BEGETS INVESTMENT

High quality infrastructure and skills, or the firm expectation of such, makes a country, region or city, more attractive for private sector investment. And private sector investment projects create spillover effects – through knowledge and skills development and by growing firm-to-firm supply chains – that attract further investment.

Investment should therefore be high in public spending priorities and policy design, not subject to capriciousness that we have seen repeatedly in the UK and so have come to expect. The methodology of the ex ante assessment of public investment projects needs to be carefully examined, and the management of projects once commissioned needs to be far more effectively focused on final delivery.

Each of these priorities is made more important by the transition to net zero carbon emissions, as public investment, support for private investment, and regulatory policies need to combine to create the appropriate trajectory for the scale of private investment required in the transition.

The achievement of the momentum required to lift us out of the low investment trap – in a coordinated and consistent manner – will ultimately require institutional reform, as discussed in Chapter Ten's case for a new, independent growth and productivity institution in the UK. The UK needs its leaders to find political will to set long-term objectives and stick with them. The tinkering will have to stop.

Key takeaways

Investment should be high in public spending priorities and policy design.

Reduce the costs of undertaking large investment projects.

Create a stable and expansionary set of economic policies.

Investment policies crucial to achieving transition to net zero.

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* The views contained in this chapter do not necessarily reflect those of the National Institute of Economic and Social Research.