

### Summary

The UK has a long term underinvestment problem. Annual UK total investment, as a share of GDP, has been on average four percentage points below that of other G7 economies since 1990.

There are shortcomings in both public and private investment. If the UK had seen average OECD levels of public investment since 2005, this would amount to £500 billion more investment, a sum sufficient to have turned the UK into Europe's largest electricity exporter, producing as much power as all of France or Germany, and securing long term export earnings from doing so.

This underinvestment has stunted growth in the UK's capital stock, which would now be £5.3 trillion rather than £4.8 trillion. The value of natural capital per capita has also declined by 30 per cent since 1990, compared with a 21 per cent increase in the value of produced capital (infrastructure and manufactured goods).

The main part of the reason for this underinvestment is poorly designed fiscal rules, which have three main flaws:

- (a) The design of the rules means governments don't use all the fiscal space they allow, causing underinvestment;
- (b) The rules only capture part of the balance sheet value of capital stock, ignoring the economic value of nature and its part in reducing economic volatility;
- (c) The Office for Budget Responsibility's (OBR's) payback period is only five years, while capital investments typically have longer payback periods

The economic case in favour of a fiscal rule for nature and climate is that around 50 per cent of GDP depends on a functioning natural world; raising green investment to meet the sixth carbon budget would boost GDP by 2.4 per cent by 2035 compared with sticking to a low investment pathway.

We recommend instituting a 'fiscal rule for nature and climate' which exempts green investment from the normal operation of the rules; or giving the government a firm target to increase Public Sector Net Wealth (PSNW)

over a time period, with an emphasis on improving the stock of natural capital.

To prevent ‘greenwashing’ (a potential problem with the first recommendation) or backsliding (the second), we further recommend a comprehensive green taxonomy and for firm targets for PSNW to be overseen by the OBR or another organisation.

### **The UK’s green investment challenge**

The UK needs to invest in a greener future. The Climate Change Committee (CCC) estimates that £50 billion of investment in the green transition is needed each year by the end of this decade.<sup>1</sup>

While much of this money will come from private sources, the seismic nature of the green transition hands a pivotal role to the public sector to galvanise private finance by acting as a first mover. It is therefore mission critical that the government has room for manoeuvre to invest in the markets, infrastructure and technologies needed to green the economy and protect nature.

Yet the UK has underinvested in all types of assets for decades. Annual UK total investment, as a share of GDP, has been on average four percentage points below that of other G7 economies since 1990.<sup>2</sup> Had we managed even OECD average levels of public investment over the past two decades (around 3.7 per cent of GDP a year, 50 per cent higher than the UK), we would have invested around £500 billion more (in 2022 prices).<sup>3</sup>

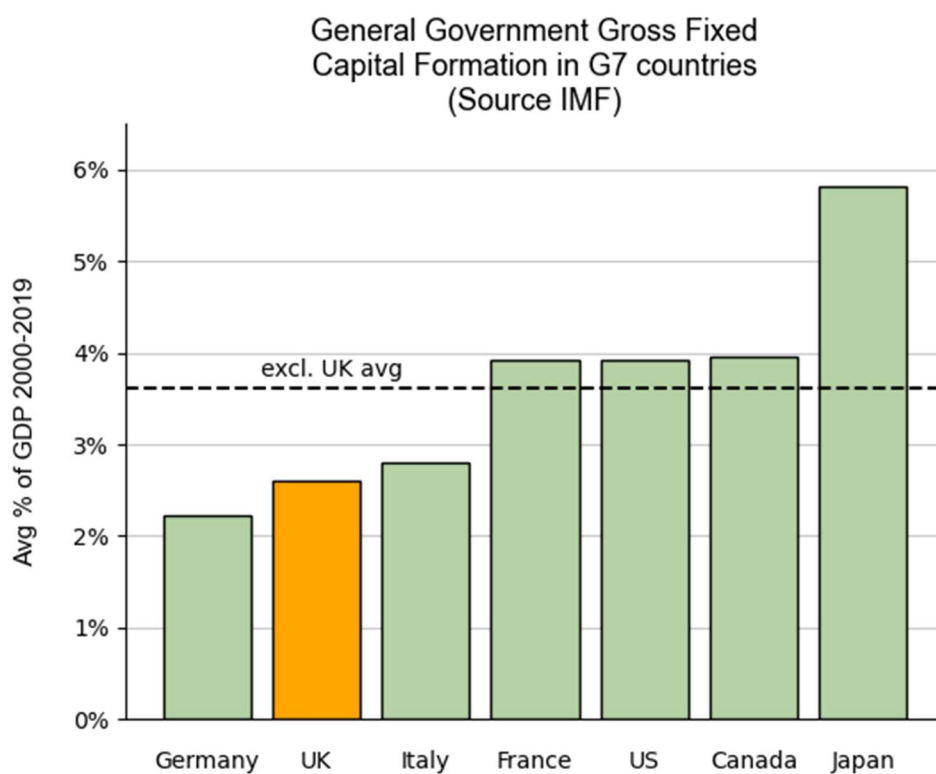
This is a colossal lost opportunity. An extra £500 billion would have been enough to build over 150GW of offshore wind along with the interconnectors necessary for electricity export to the EU. By 2030, accounting for the expected electrification of heat and transport, this would be enough to return the UK to being a net energy – not just electricity – exporter, supplying a sixth of the EU’s total electricity demand.<sup>4</sup> Put another way, the UK would export more power than either France or Germany consumes, making electricity a large export earner for the UK.

Instead, chronic underinvestment by government and companies has undermined recent growth and productivity performance, which has been poor in comparison with other countries and by historical standards.<sup>5</sup> Going forward, a failure to invest in biodiversity and the infrastructure of decarbonisation could mean the UK fails to hit its internationally binding emissions reduction targets, as well as missing out on an important new engine of growth.<sup>6</sup>

Underinvestment also leaves the country more vulnerable to costly shocks caused by nature depletion and climate change, which are not recognised in conventional economic metrics, such as gross domestic product (GDP). The Treasury-commissioned Dasgupta Review showed how nature is consistently undervalued in the economic system compared with physical goods and services produced by humans.<sup>7</sup>

Dasgupta highlighted that between 1990 and 2014, ‘produced capital’ (which includes manufactured goods and the built infrastructure) in the UK rose by a fifth, but the stock of ‘natural capital’ declined by 30%.<sup>8</sup> With biodiversity declining faster than at any time in human history, many ecosystems are close to their tipping points, with the potential to inflict immense damage on the economy and public finances.

Yet, investing in nature restoration is a highly cost effective way to address not only environmental problems but other issues too. For example, natural flood management solutions can be cheaper and more effective than engineered ones, as well as delivering co-benefits in the form of carbon sequestration and urban infrastructure protection.



There are many reasons for this underinvestment. One is an endemic culture of short termism in Whitehall and company boardrooms, which has taken root since the financial crisis and through Brexit. It often means productive long term investment with high upfront costs is overlooked for political or commercial expediency.

But another explanation rapidly gaining traction with economists such as Andy Haldane, the former Bank of England chief economist, is the suspicion that governments have been too eager to signal their probity to financial markets by adopting overly restrictive fiscal rules.<sup>9</sup> Are these rules exerting useful fiscal discipline, or are they constraining investment and growth? If the latter is the case, should the UK improve its rules to be pro-growth as well as nature-positive?

### **Tying the government's hands**

Fiscal rules are a tool to convince financial markets and potential creditors of the government's fiscal credibility. They amount to a pledge not to indulge in tax cuts or spending splurges (which can be particularly tempting near an election) if these are judged to be unaffordable in the light of current or future economic circumstances.

By 'tying its hands' in this way, the government hopes to convince lenders it is a safe bet. Adherence to fiscal rules can lower borrowing costs, as it shows investors the country is living within its means and is a safe and attractive place to invest in government debt.

Fiscal rules work. Provided they stick to them, countries with fiscal rules surveyed by the IMF have benefitted from lower government borrowing costs.<sup>10</sup> The UK was a pioneer when it introduced fiscal rules in 1998 and, bar a short hiatus during the Covid pandemic, it has made continuous use of them. Compared with the period before their introduction, UK fiscal policy has been both slightly looser and more counter-cyclical.<sup>11</sup>

But these rules have only partially depoliticised fiscal policy as they have been subject to constant manipulation and are biased towards current spending on voter-facing public services over less visible investment. In the 2000s, New Labour's fiscal rules enabled it to substantially raise spending on public services like health while keeping debt below the European average. However, this relied partly on over optimistic macroeconomic forecasts from the Treasury.

To counter this, the coalition government in 2010 set up an independent watchdog, the Office for Budget Responsibility (OBR), to adjudicate on whether the rules were being met. Deprived of the ability to massage the forecasts, governments have instead altered the rules to ensure compliance during a period of global economic instability.

Accordingly, the UK has had at least five sets of fiscal rules over the past 20 years.<sup>12</sup> The rules could become more, not less, restrictive under a potential Labour government. Left of centre governments automatically face penalties in international markets because of a perception that they will pursue more

expansionary fiscal policies likely to push up borrowing costs and cause inflation.<sup>13</sup>

Labour says it will not borrow to fund day to day spending, but only to invest. However, it will only do this once debt is growing at a slower pace than the economy is expanding (so when debt is falling as a share of GDP). This caution may conflict with Labour's desire to increase borrowing by £28 billion a year to fund its green investment programme, the Green Prosperity Plan (GPP).

Political commentators expect the Conservatives to target the impact of Labour's GPP on borrowing in the coming election campaign, using the argument that it will either have to reverse the tax cuts the government announced in the 2023 Autumn Statement or breach its fiscal rules.

Under pressure, Labour has responded by pushing back the point in the next parliament at which annual green spending would reach the full £28 billion. This is now not expected to occur before 2028, the date when the OBR forecasts that the debt to GDP ratio will be falling, in compliance with its fiscal rules. The difference between spending £28 billion in each year of a five year parliament and spending it only in its penultimate year is theoretically a loss of up to £84 billion of essential investment to the economy.

Meanwhile, although the current government has pledged to ramp up investment in cash terms, high inflation means public sector net investment is set to fall by a third as a percentage of GDP between now and 2028-29.<sup>14</sup> This fall is needed to enable the government to afford the largest tax cut since 1988 while still being on course to meet its own fiscal rules, which call for the deficit to be less than three per cent of GDP and the debt to GDP ratio to be falling over a rolling five year forecast period.<sup>15</sup>

The outlook for investment looks bleak, and for green investment bleaker still. The fiscal rules, although essential for governments to gain credibility with lenders, are contributing to this. How can this tide be turned?

### **Fiscal rules and investment**

Sustaining higher investment requires rewiring the fiscal framework to combat rather than reinforce short termism. Underlying the disquiet about inconsistency and creeping politicisation is a growing suspicion that our fiscal rules work in a way that discourages investment.

They do this by placing arbitrary limits on government borrowing or debt. There is nothing wrong with a country acquiring debt if it puts this to good use by investing in a more sustainable future and countering the depletion of nature. The size of the UK's debt as a share of GDP has roughly doubled every century since the industrial revolution, yet real government borrowing costs have trended downwards.<sup>16</sup>

Yet the UK's fiscal rules, while often acknowledging this fact, have not accommodated it:

- Fiscal rules are designed to limit excessive government borrowing today to preserve 'fiscal space' – room for the government to increase borrowing safely – in the future. But governments tend to underuse this fiscal space, failing to invest at times when it is most needed.<sup>17</sup> At times when finances are tight, governments tend to cut investment spending rather than current spending, as it generally benefits future generations and thus garners less electoral support.<sup>18</sup>
- Metrics, such as public sector net debt, which are often used to measure compliance with fiscal rules, fail to capture the full balance sheet of government assets and liabilities and, therefore, disregard the harms of not borrowing to invest. Because the value of non-financial assets, such as natural capital, are not recognised, fiscal rules do not provide incentives for governments to maintain these assets. Public sector net debt fiscal rules may even be an incentive to destroy natural capital where this boosts GDP in the short term as this could help decrease the debt to GDP ratio.
- The OBR's fiscal horizon only extends five years into the future, while the full returns from public investment often take longer to emerge, meaning that the targets tend to constrain investment, even if it would be financially viable over a longer horizon.<sup>19</sup>

Excessively tight fiscal rules biased against investment spending have repercussions across the entire economy. Deployed effectively, public investment can 'crowd in' private spending, which accounts for two thirds of national investment. The corollary is that inadequate public investment begets low private investment, a problem which has accumulated over time. This is very bad for the economy as it results in capital shallowing, which makes workers less productive.<sup>20</sup>

But it is also bad for the environment at a time when we need vastly more investment in nature and net zero.

### **Fiscal rules and green growth**

Public investment is critically important for green growth. Therefore, it is important that green investment spending is not constrained by overly tight fiscal rules but can be accommodated by them to rise to the challenge of addressing the climate crisis.

There are of course other means of raising funds to achieve nature and net zero goals besides direct public investment. The government could simply hike the price of carbon as an incentive to develop greener products and services. It

could accompany this with regulation to force pension funds and insurers to channel more money into these sectors and create natural capital markets.

However, doing this is likely to encounter stiff opposition from industrial users of energy and, even if implemented, it would not really shift the dial on green investment. There are many holdup problems in parts of the economy that initial public investment could unlock. In a lot of green industrial sectors, such as hydrogen and carbon capture and storage (CCS), public authorities have an important strategic role in providing infrastructure with high upfront costs and helping to co-ordinate moves by groups of firms into new markets with uncertain payoffs.

Perhaps the main argument for green investment in the context of the fiscal rules is that failure to decarbonise the economy and protect nature is a fundamental threat to fiscal stability because of the colossal economic damage that climate change and nature depletion will cause.

The impacts of failing to invest in nature have not been precisely quantified, but they are likely to be immense and cumulative. Research by the World Economics Foundation has found that half of the world's GDP is moderately or highly dependent on nature.<sup>21</sup> Depreciating these assets will come with significant costs. For example, in the UK it has been estimated that the cost of hand-pollinating crops due to the loss of bee and insect populations could be as high as £1.8 billion.<sup>22</sup>

In its *Fiscal risks* report, the OBR has set out the consequences of inaction on nature and climate.<sup>23</sup> It models a scenario in which firm action on climate change is put off to 2030, after which policy changes abruptly. In this instance, GDP is three per cent lower by 2050-51, while public spending is 50 per cent higher and public sector net debt (PSND) is 23 per cent higher, raising net interest payments on the debt to ten per cent of GDP.

Given that current iterations of the fiscal rules target PSND to fall over a forecast period, this frightening scenario would imply a brutal downward squeeze on other areas of government spending, coming at a time when the costs of an ageing population will be causing demands on healthcare spending to spiral.

On the other hand, more green investment, through its positive impact on growth, could make it easier, not harder, for the government to meet its fiscal rules as well as answer its social obligations.<sup>24</sup> This is partly because it disproportionately raises of private investment. The Treasury has estimated the size of the 'multiplier' (how much private investment is attracted by a £1 of public investment) to be up to 2.5 times that of fossil fuels.<sup>25</sup>

Economic modelling by Cambridge Econometrics for the CCC's sixth carbon budget (which has been accepted by the government and entails a reduction

in UK greenhouse gas emissions of 78 per cent by 2035 relative to 1990, and a 63 per cent reduction from 2019) estimates that raising annual investment to around £50 billion by the end of the decade would give a boost to the economy of around two per cent of GDP.<sup>26</sup>

This mainly represents the impact of direct economic stimulus. But there are other ways in which investing in nature is good for growth. A key argument of the Dasgupta Review is that biodiverse systems are more resilient to shocks. Since climate change is a shock, with deleterious economic consequences, increasing investment in biodiversity will make the UK economy more resilient and economic activity less volatile, potentially raising the trend rate of growth.

It is true that, in the short term, more green investment would mean more borrowing and higher debt. However, as the UK's fiscal rules target debt and deficit reduction as a percentage of GDP, higher growth through green investment would improve the denominator in this equation and so help the tests to be met. But, for policy makers to be able to do this, we first need to 'green' the UK's fiscal rules so this boldness is not punished or discouraged.

To briefly recap the argument so far: the UK has underinvested for years. This needs to be reversed to boost growth, while also meeting targets for net zero and protecting nature. A major obstacle to this is overly tight fiscal rules. What should be done about these?

## Options for reform

### **1. Make net zero investment a special case (as happened with Covid) to build up the green capital stock, either permanently or, for instance, over a five year period.**

This could take the form of a 'golden rule', which would allow exclusion of green investment from the metrics used to measure government's compliance with fiscal rules, allowing them to borrow to invest in net zero and nature without breaching their own rules.

Golden rules have been used by governments in the past.

The primary benefit of a green 'golden rule' is that this could be very effective at mobilising investment in net zero and nature as it gives the government a strong incentive to transform more public investment into green investment to exempt this from fiscal constraints.<sup>27</sup> This would allow Labour to spend the £28 billion it pledged under the GPP without having to raise taxes or cut other important public spending to stay within the confines of its fiscal rules. It would also give the current government more room to lower taxes from their 75 year high but without cutting investment to the detriment of growth.



However, this approach has its drawbacks. Debts incurred by the government will still have to be serviced, regardless of whether it is used to finance green investment or not. Critics of this approach have highlighted that a golden green fiscal rule could, therefore, undermine the very goal of fiscal rules, which is to improve debt sustainability.<sup>28</sup>

A green golden rule also risks encouraging the government to greenwash investments as spending could be reclassified as 'green' to exempt it from fiscal rules.<sup>29</sup> To avoid this risk, the government would need to develop a green taxonomy detailing what sort of investments would count towards this goal, with an independent organisation, such as the OBR, CCC or the National Audit Office, tasked with monitoring compliance.

It might also be necessary to set out an explicit target path for the debt stock to reassure investors. For example, the government might need to state that it expects the debt to GDP to rise by, say, five per cent over five years to allow a one per cent rise in public investment every year.

A further problem, though, is that a golden rule risks reducing incentives for spending to be efficient or to prioritise investments with high returns and could push government to prioritise green investment over other much needed forms of capital or current spending, such as on the NHS. This would be a political decision resting with the government.

**2. Adjust the fiscal rules to ensure the government considers public assets (including natural assets, which have been priced at c£1.5 trillion) alongside liabilities, allowing for more expansive rules that encourage more productive and green investment.**

An alternative approach could be to introduce a fiscal rule to increase public sector net worth (PSNW), instead of, or in addition to, more commonly used debt based fiscal rules. PSNW aims to provide a more comprehensive picture of public finances by offering a snapshot of all assets and liabilities held by government.

This includes both financial and non-financial assets, such as roads, schools and natural assets, and liabilities, such as borrowing and unfunded public sector pensions. In contrast, traditional metrics, such as public sector net debt only include financial instruments on the asset side, and debt as a liability.<sup>30</sup>

This may be one reason why the UK's PSNW is low. According to the ONS's estimates, there was a £715.9 billion deficit in October 2023, which has been increasing.<sup>31</sup> The OBR has found that the UK's PSNW is the lowest among advanced economies.<sup>32</sup>

A fiscal rule embodying a target to increase PSNW would be a strong incentive for government to invest in assets expected to generate high returns. This

could incentivise investments in net zero which, as we have previously demonstrated, have clear economic benefits, and nature restoration projects such as peatland restoration, which has been estimated to have a cost-benefit ratio of at least 5:1 and possibly as high as 10:1.<sup>33</sup>

While the golden rule approach discussed above provides more incentives for green investment specifically, a PSNW approach is much more likely to ensure the government prioritises spending that provides the most value for money, as investments that do not increase PSNW would breach their own rules.

Importantly, the PSNW approach also provides incentives for the government to upkeep assets, as their depreciation would reduce PSNW. This includes natural assets, which are valued at around £1.5 trillion.<sup>34</sup> It is the only fiscal rule that internalises the value of natural capital, providing a strong impetus for conserving nature as well as restoring degraded ecosystems. This could help reduce volatility in the overall approach to the public finances, which is one of the reasons investment has suffered.

The main criticism of this approach is that it could undermine debt sustainability as PSNW is not an accurate representation of the government's ability to access capital markets or service public debt. An asset rich country may perform well in terms of PSNW but be unable to service debt if assets such as nature, roads and schools cannot be sold off to finance debt repayments.<sup>35</sup>

However, this risk could be reduced by retaining fiscal rules to keep public sector debt under a certain level alongside that of increasing net worth. Other criticisms include that PSNW can be challenging to measure as the value of non-financial assets in particular is difficult to assess and can never provide a comprehensive overview of all the government's assets and liabilities.<sup>36</sup>

The ONS currently produces estimates of PSNW, which could be a good starting point. But, while these take natural assets into account, this only includes assets where ownership can be exercised, and those which bring economic benefits.<sup>37</sup> Incorporating full natural capital accounts, which the ONS currently produces experimentally, into PSNW could give a more accurate picture.

## **Conclusion and recommendations**

It is time to treat climate change and biodiversity loss as equivalent to irresponsible budgets and so called 'black swan' shocks, in terms of their impact on the public finances. This requires building an appreciation of the positive economic value of nature into the financial system which, in turn, will create an investment climate that will lead to a greener, fairer and less volatile future.

To get this, new fiscal rules are needed to ensure sustainability while leaving ample space for green investment.

- We strongly recommend the next government looks at instituting a ‘fiscal rule for nature’ which embodies a firm target to increase PSNW over the course of a parliament, with a particular emphasis on improving the stock of natural capital.
- This should be overseen by the OBR, or another body with a specific remit to encourage green investment, and subject to a strict and credible green taxonomy to prevent greenwashing.
- Public investment should be targeted at projects that unlock private investment and are pro-growth. It should also aim to unlock the value of natural capital through increasing biodiversity and ameliorating climate damage which is depleting the stock of natural and other assets.
- This approach should be accompanied by other methods of raising private investment, such as setting up a new green investment bank, extending the contracts for difference regime in the energy sector and making it more attractive for pension and mutual funds to back green investments.

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## Endnotes

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<sup>2</sup> IMF, 2023, ‘Enhancing business investment in the United Kingdom’, SIP/2023/050

<sup>3</sup> Resolution Foundation, March 2023, briefing note, ‘Cutting the cuts: how the public sector can play its part in ending the UK’s low-investment rut’

<sup>4</sup> This is assumed to be additional to any existing plans in the UK for offshore wind. Looking forward to 2030, we used the UK’s electricity needs (fossil fuel baseload electricity generation [estimations](#) from the CCC’s 6<sup>th</sup> carbon budget (6CB), and 2023 electricity import [figures](#), scaled by expected electricity demand increases of 19% for 2030, also based on the 6CB) and fuel imports (using government 2022 [figures](#), also scaled, a reduction of 29% based on the 6CB). The global average price for offshore wind, [\\$3461/kW](#), was used. The price of the electricity interconnectors were based on

the UK-Denmark [Viking Link](#), and the capacity required was estimated based on [research](#) conducted by the North Sea Wind Power Hub consortium.

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<sup>9</sup> *Financial Times*, 16 May 2023, 'The case for rethinking fiscal rules is overwhelming'

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<sup>16</sup> *Financial Times*, 16 May 2023, op cit

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<sup>25</sup> HM Treasury, 2021, 'Net zero review. Analysis exploring the key issues'

<sup>26</sup> CCC, 2020, op cit

<sup>27</sup> European Parliament, 2020, 'The role of fiscal rules in relation with the green economy'

<sup>28</sup> VoXEU, 2022, blog, 'How to ensure that European fiscal rules meet investment'

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<sup>30</sup> Resolution Foundation, 2019, *Totally (net) worth it: the next generation of UK fiscal rules*

<sup>31</sup> ONS, Public sector finances, UK: December 2023

<sup>32</sup> Office for Budget Responsibility, 2021, Working paper No.16 Forecasting the balance sheet: Public sector net worth

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<sup>34</sup> ONS, 2023, UK natural capital accounts: 2023

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<sup>37</sup> Office for Budget Responsibility, October 2021, working paper no 16, 'Forecasting the balance sheet: public sector net worth'