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Institute for Fiscal Studies

# The IFS Green Budget October 2020

Edited by:  
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In association with Citi and funded by the Nuffield Foundation



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# Foreword from Citi

We are delighted to again be collaborating with IFS on the production of the Green Budget. The eminent and objective thinking of the IFS research team always brings welcome clarity to complex UK economic issues. With the UK economy facing unprecedented levels of peacetime uncertainty as a result of both the COVID-19 pandemic and the ongoing Brexit negotiations, this is now more essential than ever. The Chancellor's cancellation of an Autumn Budget in 2020 means that some of the key decisions are now likely to be pushed into 2021. However, it is increasingly clear that the UK will face a series of profound economic challenges in the aftermath of the current crisis. The high-quality insight provided by IFS is therefore essential reading for policymakers and corporate leaders alike as we all begin to chart a path out of the current crisis.

Citi's economists have again provided three chapters for this year's Green Budget. Our first chapter looks at the global economic outlook. Lockdown measures implemented in the first half of 2020 were unprecedented in most countries and, in many cases, only partially successful in getting the virus under control. Over the third quarter of 2020, most countries have started to see a sharp but incomplete economic recovery. But recovery faces risks from cautious consumers, high rates of unemployment, low investment during the first half of 2020, the rise of private sector debt, and disruptions to international trade – not to mention the risk of another steep rise in COVID-19 cases. Citi forecasts that GDP will not reach pre-pandemic levels in many economies until 2022. Even then, we expect all economies to remain smaller than either our pre-COVID forecasts or what a simple extrapolation of pre-COVID trends would imply.

The second chapter reviews the UK economy in detail and paints a challenging picture for policymakers. The UK faces a long road to recovery in the wake of the COVID-19 pandemic, with one of the largest economic shocks among advanced economies in the first half of 2020. This reflected not only the length of the lockdown, but also the structure of the UK economy. Paths to recovery could vary quite dramatically going forward depending on the interplay of lockdown scenarios and the extent to which the UK economy needs to be reconfigured. Here the Brexit outcome will also play a notable role. Our own forecasts are subdued and we now expect output to recover to 2019 Q4 levels only by 2023 Q2. Even our most optimistic scenario would only lead to output potentially recovering to pre-COVID levels by 2022 Q2.

Our third chapter considers the additional challenges posed by Brexit. Most indications point to only a limited (if any) trade deal with the European Union after the Brexit transition period ends in December this year. Despite over four years passing since the referendum, many of the associated economic costs still likely lie ahead. Critically, the shock from Brexit will impact different sectors from the COVID shock, meaning that Brexit is likely to

cause additional economic turmoil even if the recovery from COVID is under way. Many of these costs, we think, are likely to hit the economy in early 2021.

I would like to thank Christian Schulz and Benjamin Nabarro from Citi's UK Economics team for their detailed work in compiling the chapters for this year's Green Budget. I would also like to thank IFS for the opportunity to collaborate on the Green Budget.

A handwritten signature in black ink, appearing to read 'Andrew Pitt'.

**Andrew Pitt**  
Global Head of Citi Research

# Foreword from the Nuffield Foundation

Traditionally, the Green Budget, with its rigorous analysis of tax and spending options, provides scrutiny in the public interest ahead of the Chancellor's Budget. Although there will be no Budget this year, this report remains important, not only because of its relevance to the forthcoming Spending Review, but also for its role in injecting independent evidence into the public conversation about how to respond to the huge economic and social challenges currently facing the UK.

The context is overwhelmingly dominated by the uncertainties posed by COVID-19 and Brexit, which make decisions about tax and spending all the more complex, particularly in light of the government's policy commitments. IFS does not shy away from this complexity – in the chapter on 'levelling up' for example, it provides much-needed evidence on the different dimensions of regional inequalities and how the pandemic has both exacerbated some and brought new ones to the fore. The parts of the country that traditionally have lower levels of pay, employment and education are not necessarily the same as those that have experienced the worst short-term economic impacts of the pandemic, which poses difficult questions for both short- and longer-term policy decisions. We hope that such evidence and insight will inform the development of a clear strategy to support a more equal distribution of growth and prosperity as we try to navigate the new uncertainties.

The comprehensive nature of the Green Budget is another of its strengths. It tackles the systemic challenges relating to the labour market, government debt, social security, and public spending, to name but a few. This aids public understanding of the interrelationships between different areas of economic policy, as well as demonstrating *why* such challenges are important. In its framing of the economic outlook, IFS shows that ultimately, the questions to be addressed are about people's well-being and the safeguarding of our health, livelihoods and public services in a time of crisis. These issues are central to the Nuffield Foundation's work to advance social well-being, and we are pleased to provide continued support to the Green Budget. We thank IFS and Citi for providing such a timely and thorough report.



**Tim Gardam**

Chief Executive, Nuffield Foundation

# Preface

Welcome to the IFS 2020 Green Budget.

For the second year running, this is a Green Budget without an Autumn Budget to follow it. This might seem rather a contradiction: since 1982, the Green Budget has been a forum to discuss the issues and challenges facing the Chancellor ahead of his Budget.

But in fact, this year's Green Budget is more important than ever. The UK's economy and public finances are facing challenges not previously seen. The end of the Brexit transition period on 31 December 2020 will bring another set of economic disruptions. The Chancellor has already announced £200 billion of support since the March Budget; there is a good chance that more will follow, even before the next Budget which will presumably be in Spring 2021. Careful analysis of the scale and the shape of the challenges facing the UK is a crucial part of designing effective policies to address them.

Unsurprisingly, much of this Green Budget is taken up by the economic challenges thrown up by COVID-19. The response to the pandemic has had an unprecedented impact on the UK's public finances. For the next year at least, the focus needs to be on what further support policymakers can give to the economy. But after that, the debate will need to turn to putting the public finances on a sounder path. There are no easy answers here, but some action will be required.

This conversation will be complicated by the pressures on public spending. Following a decade of austerity, a plurality of Brits reported a preference for higher taxes and public spending even before the COVID crisis. The government has also promised to focus on 'levelling up' the country. And a combination of lower earnings, lower employment, and temporary giveaways means that spending on working-age social security is on track to hit 7% of national income this year, the highest level ever. We address all of these issues in depth in this year's Green Budget.

We are delighted to continue our collaboration with Citi, now in its third year. We are grateful both for their financial support for the Green Budget and for their chapters on the economic impact of the pandemic on advanced economies around the world, the impacts of COVID on the UK economy, and the wider economic challenges facing the UK – not least from Brexit. All provide vital context for the rest of the Green Budget's analysis.

We are also very grateful to the Nuffield Foundation for the funding it has provided to support the Green Budget. Our most important aim for the Green Budget is to influence policy and inform the public debate. It is particularly appropriate, then, that it should be supported by the Nuffield Foundation, for which these are also central aims.

The continuing support that the Economic and Social Research Council (ESRC) provides for our ongoing research work via the Centre for the Microeconomic Analysis of Public Policy at IFS (ES/M010147/1) underpins all our analysis in this volume and is gratefully acknowledged. The analysis in Chapter 8, discussing temporary reforms to working-age benefits, was supported with co-funding from UK Research and Innovation (grant number ES/V00381X/1).

Data from the Family Resources Survey were made available by the Department for Work and Pensions. The Households Below Average Income data prior to 1994–95 were constructed from the Family Expenditure Survey, available from the UK Data Service. UKDS also distributes Understanding Society: the UK Household Longitudinal Study; the Survey of Personal Incomes: Public Use Tape 2016–17; and the Labour Force Survey (1993–2019). This work uses research data sets that may not exactly reproduce National Statistics aggregates. The data owners and suppliers bear no responsibility for the interpretation of the data in this book.

As with all IFS publications, the views expressed are those of the named chapter authors and not of the institute – which has no corporate views – or of the funders of the research.



**Paul Johnson**

Director, Institute for Fiscal Studies

## Citi Research

Citi Research focuses on delivering the highest quality company, sector, economic and geographic insights to our clients globally. The unit includes equity and fixed income research, economic and market analysis and product-specific analysis to help individual and institutional clients navigate a complex global marketplace. Citi Research is committed to maintaining the highest level of independence and objectivity in its proprietary products and insights.

## Citi Bank

Citi, the leading global bank, has approximately 200 million customer accounts and does business in more than 160 countries and jurisdictions. Citi provides consumers, corporations, governments and institutions with a broad range of financial products and services, including consumer banking and credit, corporate and investment banking, securities brokerage, transaction services, and wealth management. Citi has been in the Nordic countries since the 1970s, with offices in Copenhagen, Helsinki, Oslo and Stockholm.

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## The Nuffield Foundation

The Nuffield Foundation is an independent charitable trust with a mission to advance educational opportunity and social well-being. It funds research that informs social policy, primarily in Education, Welfare and Justice. It also provides opportunities for young people to develop skills and confidence in science and research. The Nuffield Foundation is the founder and co-founder of the Nuffield Council on Bioethics, the Nuffield Family Justice Observatory and the Ada Lovelace Institute.

The Nuffield Foundation has funded this project, but the views expressed are those of the authors and not necessarily the Foundation.

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# Executive summary

## 1. Global economic outlook: lessons from the pandemic

The COVID-19 outbreak and the policy response to it have not just dominated the economic and fiscal developments in 2020 so far; they also set the starting point for the rest of the year and 2021. As long as the virus remains a significant health threat – with no vaccine and no highly effective treatment – the situation remains too volatile to provide a definitive assessment of the global economic impact.

What is clear is that countries around the world have seen historic hits to their economies in the first half of 2020; GDP fell by 10.2% in the US, 14.3% in the EU and 22.1% in the UK. While the lockdown measures implemented in the spring and early summer were unprecedented in most countries, some countries have succeeded in getting the virus under control (and are now reaping economic and political benefits).

Over the third quarter of 2020, most countries have started to see a sharp but incomplete economic recovery. But recovery faces risks from cautious consumers, high rates of unemployment, low investment during the first half of 2020, the rise of private sector debt, and disruptions to international trade. Citi forecasts that GDP will reach pre-crisis levels mostly in 2021 or 2022. Even so, we expect all economies to remain smaller than either our pre-COVID forecast or a simple extrapolation of pre-COVID trends would imply.

### Key findings

- **Attempts to contain the first wave of COVID-19 with hard lockdowns were costly.** Some governments succeeded and are reaping economic and political benefits from it. Others tried less successfully and may end up worse off than those that did not try or abandoned attempts early. In most cases, the bar to returning to the stringent lockdowns seen during the spring seems high.

- The fiscal and monetary response has been even swifter and more comprehensive than after the 2008–09 crisis. Governments initially responded with a ‘first wave’ of measures aimed at protecting household and business incomes. This was followed over the summer by a ‘second-wave’ response targeted at boosting demand as lockdowns eased. Finally, some countries – most notably in the EU – have started to introduce ‘third-wave’ packages to help support the transition to a new normal. **Timely, well-targeted and generous support should significantly improve the chances that scarring will be minimised and a more complete economic recovery achieved.**
- The ‘first-wave’ fiscal response saw considerable support for the labour market, which helped to keep workers attached to their jobs. In Germany, the UK, France and Italy, traditional measures of unemployment remained in single digits over the summer, but **rates of furloughing pushed total unemployment rates to nearly 25% in the latter three countries.**
- In virtually every economy, the collapse of economic output in the first half of 2020 was historic. GDP fell by 10.2% in the US, 11.5% in Germany and 14.3% in the EU as a whole. Other countries suffered much worse economic shocks; GDP fell by 17.6% in Italy and 18.9% in France. **Of 28 major economies, Spain and the UK had the worst falls in GDP (of 22.7% and 22.1% respectively).** Only China continued to grow in the first half of 2020, but growth of 0.4% is a far cry from its usual growth rates.
- After an economically disastrous first half of the year, most countries experienced a sharp – but generally incomplete – recovery. We expect that, **even avoiding another round of major lockdowns, most economies will not return to pre-pandemic levels of output until 2021 or 2022.**
- Even when the pandemic itself is over (with the development and roll-out of a vaccine or effective medication), there will be lingering economic effects. Supply will feel the impact of depressed investment in 2020, as well as ongoing hygiene measures that remain necessary. Demand will be affected by ongoing caution, shifts in behaviour and unemployment. Even where economies recover, significant losses for creditors could crystallise. **We therefore expect all economies to remain smaller than either our pre-COVID forecast or a simple extrapolation of pre-COVID trends would imply.** The pandemic could also spark wider changes in the political landscape; a first test will be the US elections in November.

- **Citi forecasts big GDP declines and sharp recoveries almost everywhere, with GDP reaching pre-crisis levels mostly in 2021 or 2022.** On current forecasts, China and the US look set to outperform European economies. Inflation and interest rates should stay low. There is a significant risk of divergence between the best- and worst-performing economies in this crisis; going into the final quarter of 2020, the UK has one of the worst starting points among major economies.

## 2. UK economic outlook: the long road to recovery

The UK faces a long road to economic recovery in the wake of the COVID-19 pandemic. In this chapter, we consider the near-term outlook in depth. Lockdown measures implemented in response to COVID-19 slashed nearly two decades of growth from the UK economy in March and April of this year. Since then, the economy has rebounded strongly on the back of the return of capacity and high levels of policy support.

However, we think this momentum is unlikely to last. Households have a key role to play in the recovery: firm balance sheets are weakened by the outbreak and the external picture remains complicated by Brexit and by other countries' experiences of the pandemic. While backing the UK consumer has historically proven a sound bet, there are reasons why this time might be different. Lingering virus unease and broader uncertainty seem set to weigh on demand in the second half of 2020. With these effects concentrated in labour-intensive sectors, substantial increases in unemployment risk propagating the economic downturn – especially given the dialling down of policy support. We expect output in 2020 Q4 to remain more than 6% below 2019 Q4 levels – a larger drop than the peak-to-trough fall during the financial crisis. With permanent reconfiguration within the UK economy likely over the coming years, substantial policy support is likely to remain necessary for some time to come in order to avoid an even more prolonged crisis.

## Key findings

- **Following a record 19.8% quarter-on-quarter (QQ) fall in the second quarter of 2020, we expect output to rebound by 17.5% QQ in Q3.**  
Household consumption in particular has been recovering well, driven by the return of capacity, deferred expenditures and additional policy support.
- But we expect the recovery to slow sharply from here. Virus fears, and weak associated demand, are instead likely to come to the fore. **In our central scenario, 2020 Q4 GDP will remain 6.2% below 2019 Q4 levels, a larger fall than the 5.9% peak-to-trough fall during the financial crisis. Even by the end of 2024, we think GDP will still be only 1.9% above 2019 Q4 (and 4.7% below its 2016–19 trend).**
- The recovery from here hinges on households. Impaired business balance sheets and changes to trade patterns will likely weigh on investment and exports initially. By contrast, households on average saved a record 28.1% of their incomes during Q2 (compared with 6.1% between December 2016 and 2019). **The question now is primarily about household confidence and whether it can drive a pick-up in spending. While possible, we are not optimistic.**
- The COVID-19 shock is unusually concentrated in labour-intensive sectors. **Payroll data to August suggest there has already been a loss of over 700,000 employee jobs, even before the end of the furlough scheme.** While official unemployment figures are confused at present, the fact that the Labour Force Survey suggests 500,000 more people than in March are out of work and want a job is a cause for concern. **We expect the unemployment rate to increase to around 8–8.5% (2.8 million) in the first half of 2021,** feeding back into weaker sentiment.
- **There are clearly enormous uncertainties surrounding all of these forecasts.** Our outlook is conditioned on three judgements. First, we assume no effective protection against the virus is widely available before 2021 Q2; second, we expect lingering health concerns to weigh on demand until this point; and third, we anticipate that the medium-term reconfiguration (due to both COVID and Brexit) implies a larger and more persistent increase in unemployment, as well as an associated loss of capacity.

### 3. The cost of adjustment: emerging challenges for the UK economy

All indications point to only a thin trade deal (if any) with the European Union after the Brexit transition period ends in December. Despite over four years passing since the referendum, many of the associated economic costs still likely lie ahead. The shock from Brexit will affect different sectors from the COVID shock, meaning that Brexit is likely to cause additional economic pain even as the economy recovers from the virus-driven downturn. In addition, we think COVID is likely to have hampered public and private preparations for the end of the Brexit transition period, compounding the near-term economic cost. We expect GDP growth in 2021 to be 2.1% lower than in the event the UK were to remain in the EU Single Market and Customs Union. In a normal year, this would be enough to push the economy into recession. Some of this growth is likely to be made up in 2022.

The UK has traditionally shown itself to be a relatively flexible economy. This reputation is likely to be tested to the extreme over the coming years. We expect substantial restructuring of the UK economy in the years ahead as it responds to the new shape of demand from UK consumers in the wake of COVID-19 and the new shape of trading relationships in the wake of Brexit. Such restructuring implies a more protracted economic recovery and a substantial loss of economic capacity as some of the expertise and capital specific to now shrinking sectors becomes surplus to requirements. Persistent policy support will be needed to help the economy through this transition. However, fiscal policy will also have to tread a fine line between supporting growth in the near term and charting a path to fiscal sustainability in the medium term. This is a significant challenge.

#### Key findings

- Brexit remains a substantial economic challenge for the UK. The options currently on the table appear to be restricted to only a thin trade deal or a no-deal exit. **We anticipate that the former case would leave the UK economy 2.1% smaller in 2021 than in a counterfactual where the transition period continues indefinitely;** a no-deal exit could see output depressed by an additional 0.5–1.0%.

- The path that Brexit-related economic impacts take over the next 12–24 months will depend on when changes associated with the UK’s exit from the Single Market and Customs Union begin to materialise, and the extent to which firms have already acted to improve their resilience. We think **the majority of Brexit-related adjustment lies ahead**. Weak sterling since 2016 has provided an incentive for many firms to maintain UK operations where they can, even if now unviable in the longer term. Low investment to date may reflect some long-term adjustment, but also reduces overseas firms’ economic ties to the UK. Brexit-related adjustments could now therefore prove more front loaded.
- **Both COVID and Brexit are likely to result in medium-term economic reconfiguration, as well as near-term disruption.** The UK labour market, in particular, has shown itself better able to adjust during previous downturns than other countries. Even so, the ‘double whammy’ of COVID and Brexit will make adjusting to the new normal a huge challenge.
- **Adjustment to a post-COVID, post-Brexit new normal will have economic costs that last into the long term.** A rebalancing away from the consumer services sector (COVID) and some parts of manufacturing and financial/business services (Brexit) would make much of the accumulated capital and skills in these sectors less valuable. For workers, the longer they remain unemployed, the worse their prospects in the labour market. This can have consequences that last for decades.
- The economic response to COVID-19 has seen monetary and fiscal policy complement each other, as the Bank of England and the government both seek to support the economy. However, this complementarity is less assured in the medium term: **upward pressure on inflation (and particularly inflation expectations) could lead to the Bank tightening monetary policy even if fiscal policy still needs to remain loose**. The UK’s dependence on foreign credit remains a notable additional vulnerability. More fiscal support will likely be needed in the near term. But getting the public finances on a sustainable trajectory in the medium term is also now a key challenge.

## 4. Outlook for the public finances

The COVID-19 pandemic and the public health measures implemented to contain it will lead to a huge spike in government borrowing this year. We forecast the deficit to climb to £350 billion (17% of GDP) in 2020–21, more than six times the level forecast just seven months ago at the March Budget. Around two-thirds of this increase comes from the large packages of tax cuts and spending increases that the government has introduced in response to the pandemic. But underlying economic weakness will add close to £100 billion to the deficit this year – 1.7 times the total forecast for the deficit as of March.

This year's deficit will reach a level never before seen in the UK, outside of the two world wars of the 20<sup>th</sup> century. But what matters much more for the long-run health of the public finances is how complete the economic recovery will be. With the cost of borrowing at a record low, additional spending now that helps to deliver a more complete recovery would almost certainly be worth doing. For now, the government should focus on designing and delivering such support. But, in the medium term, getting the public finances back on track will require decisive action from policymakers. The Chancellor should champion a general recognition that, once the economy has been restored to health, a fiscal tightening will follow.

### Key findings

- **Government borrowing this year is projected to climb to £350 billion which, at 17% of GDP, is a level never before seen in the UK, outside of the two world wars of the 20<sup>th</sup> century.** This compares with a March Budget forecast of £55 billion. Of this near £300 billion increase in forecast borrowing, just over £200 billion is the cost of the substantial packages of measures set out to help support public services, households and businesses through this difficult time, while the remaining almost £100 billion reflects the direct impact on borrowing of the sharp economic downturn associated with the pandemic.
- What matters more for the long-run health of the public finances – and what is far more uncertain – is how complete the economic recovery will be. Under our central scenario, and assuming none of the temporary giveaways in 2020–21 are continued, **borrowing in 2024–25 is forecast to be over £150 billion compared with the March Budget forecast of £58 billion.** Under our pessimistic scenario, borrowing is forecast to be over £200 billion in 2024–25,

while even under our optimistic scenario it is still forecast to be over £90 billion.

- There will be significant pressures to increase public spending above plans by maintaining some of the additional spending used to support the economy, public services and working-age social security over this year. **If a quarter of the additional public service spending announced in response to COVID-19 were made permanent, this would add £20 billion (in today's prices) to spending by 2023–24.** Depending on the size of any tax rise implemented by that point, this could add up to 1% of national income to forecast borrowing in 2023–24.
- Prior to the pandemic, public sector net debt was around 80% of national income and was forecast to fall slightly over the next few years. This was considerably above the 35% of national income seen in the years prior to the financial crisis. In 2024–25, we forecast public sector net debt to be just over 110% of national income in our central scenario, close to 100% of national income in our optimistic scenario and close to 130% in our pessimistic scenario. **In the central scenario, over three-quarters of the rise in debt will result from lower economic activity rather than the large increases in spending implemented this year.**
- With the government currently able to borrow very cheaply, under each of these scenarios spending on debt interest as a share of revenues would fall even further from its recent historical low. This low cost of borrowing means that **additional spending now that helped to deliver a more complete recovery would almost certainly be worth doing.**
- Once the economy has recovered, **policy action will be needed to prevent debt from continuing to rise as a share of national income.** The scale of the challenge will be considerable, but so is the degree of uncertainty around the size of consolidation that will ultimately be required. Even if the government's cost of borrowing remains low, and ignoring other pressures, under our central scenario a 2.1% of national income fiscal tightening in 2024–25 – £43 billion in today's terms – would still only be sufficient to stabilise debt at over 100% of national income over the next 40 years.

- In fact, **additional spending pressures on health, pensions and social care** are expected by the Office for Budget Responsibility to add 1.8% of national income to spending each decade. They treble the projected necessary policy action, with a fiscal consolidation of 6.6% of national income required if public sector net debt is to be brought down to 100% of national income in 40 years' time.
- While the policy action needed is much lower under our optimistic scenario (the 6.6% of national income falls to 3.6% of national income), a rise in interest rates or **future adverse shocks such as those experienced twice in the UK in the period since just 2007 would make the task of preventing debt from rising further over the next 40 years even more challenging.**
- The Conservative Party manifesto commitment to reduce debt as a share of national income over this parliament will be broken, and the current fiscal targets lie in tatters. But the high degree of uncertainty means that now is not the time to be announcing new targets, or the size, timing or nature of any fiscal tightening. Even the Autumn Budget of 2021 may be too soon for this. Meanwhile, the Chancellor should **recommit to the independence of the OBR and ensure that as far as possible it is able to scrutinise costings in advance of major policy announcements.** More generally, Mr Sunak should champion a general recognition that, once the economy has been restored to health, a fiscal tightening will follow.

## 5. Managing much-elevated public debt

The COVID-19 crisis has pushed up government borrowing substantially, meaning that the Debt Management Office will need to sell a much larger value of gilts than normal. In our central scenario, we forecast the total amount to exceed £1.5 trillion, more than double the Budget forecast in March. While there is tremendous uncertainty around this figure, the total value will easily be the highest in recent history outside of the two world wars.

As a result, the UK's public finances will be extremely sensitive to the effective interest rates on this debt, and to the risk that they rise. One way to address this risk is by selling more long-term, index-linked gilts while the effective interest on them is extraordinarily – some would say unsustainably – low.

The expansion of the Bank of England programme of quantitative easing means that virtually all of this new debt has been bought by the Bank. The cost of financing this debt is the Bank Rate. While this remains historically low, it helps to hold down the government's debt interest bill; however, debt interest spending will rise suddenly and sharply when the Bank Rate increases. Since government spending is now more closely tied to the Bank Rate, it will be even more important to ensure that the Bank of England continues to be – and be perceived as – independent and focused on its monetary policy mandate.

### Key findings

- The COVID-19 crisis has pushed up government borrowing substantially, meaning that the Debt Management Office (DMO) will need to sell a much larger value of gilts than normal. **Our central scenario is for over £1.5 trillion to be raised through gilt issuance over the next five years, double the £760 billion forecast in the March 2020 Budget.** There is considerable uncertainty around this amount.
- The characteristics of the gilts that the DMO issues will have implications for the public finances in the longer term. **The enormous value of debt being issued means that the costs of financing it just slightly wrong will be large.**
- Short- and long-maturity gilt yields have fallen even further from the already low rates seen prior to the pandemic. A similar phenomenon can be seen in the Eurozone and the US, where – as in the UK – **yields are now much closer to the very low rates that have become typical for Japan.**
- The expansion of the Bank of England's programme of quantitative easing means it bought £236 billion of gilts between March and September 2020, almost exactly the same as the £227 billion of gilts issued by the DMO over the same period. As a result, **private borrowing has not been crowded out by government borrowing.** The financing cost of quantitative easing is Bank Rate, which is at record low levels, and has therefore further depressed government debt interest spending from already record lows as a share of receipts. However, **the tilt towards Bank of England held debt means that the government's debt interest bill will rise sharply if Bank Rate rises.**

- A much larger share of the UK's debt is linked to an inflation index than is the case for many other countries. About a quarter of its debt is index-linked, compared with an average of 3–8% across OECD countries over the last decade. It also borrows on a longer time frame with an average maturity of over 15 years compared with, for example, less than 9 years in France, Germany, Italy and Spain. But quantitative easing reduces the effective maturity of government borrowing. This – combined with elevated issuance over the next five years – means that **a 1 percentage point increase in all yields would now add £19 billion to debt interest spending in 2024–25, some 76% higher than the £11 billion forecast in March 2020.**
- Rising yields accompanied by stronger growth would be welcome. The risk to the public finances is that yields rise but growth prospects do not. **One way to address this risk is by selling more long gilts.** Long-term rates are extraordinarily – some would say unsustainably – low. Even 50-year gilts are consistently offering just 0.5% a year since April 2020. In the long run, we might expect inflation to return to the target level of 2% which, when combined with a nominal return of 0.5% a year, would imply a real annual return of –1.5% a year.
- The latest auction of long-maturity index-linked gilts led to £459 million being raised at a real yield to maturity (based on RPI indexation) of –2.0% a year through to 2056. **Contrary to the direction of recent policy, there could be considerable benefits from tilting the UK's debt portfolio more towards index-linked gilts.** This would have the advantage of locking in the current very low real rates for a greater share of government debt.
- Changes – or even just a perceived appetite for changes – to the institutional structure of UK fiscal and monetary policy could put upward pressure on the risk premium for gilts, even if the underlying natural rate of interest, and expected growth, remain very low. **It will be particularly important to maintain the credible independence of the Monetary Policy Committee in setting monetary policy,** since the government has a more direct stake in Bank Rate now that it has more effect on its debt interest bill.

- The Chancellor needs to signal that he takes the long-run health of the public finances seriously, that he fully respects the independence of the Monetary Policy Committee, and that he will not water down the inflation target in an attempt to help manage the public finances. **Issuing a larger share of gilts on a long-term, indexed basis could only help to signal that intent.**

## 6. Spending Review 2020: COVID-19, Brexit and beyond

The Chancellor, Rishi Sunak, has announced his intention to hold a Comprehensive Spending Review this year. The immense economic uncertainty associated with the COVID-19 pandemic, and the looming end of the Brexit transition period, make this an extraordinarily difficult time to be formulating public spending plans. In addition, the Spending Review will come on the back of the longest sustained squeeze in public spending on record, with pressure for austerity to be brought to a decisive end. Whether Mr Sunak makes the sensible decision to set only one year of spending plans, or embarks on a ‘comprehensive’ multi-year review, the process will be fraught with difficulty and delicate trade-offs.

In this chapter, we outline the public spending framework and explain which components of spending are subject to the Spending Review process, and why. We then discuss four major challenges confronting the Chancellor: the economic fallout from the pandemic; uncertainty associated with Brexit; making decisions on the back of a decade of austerity; and the government’s ambitious ‘levelling-up’ agenda. We then turn to a discussion of the options facing Mr Sunak. We set out a number of scenarios to illustrate the two major choices to be made – the initial baseline of public spending and its real-terms growth rate over the next three years – and consider the implications of each. Finally, we make the case for holding a one-year Spending Review.

### Key findings

- This year’s Spending Review will take place in extremely challenging circumstances. The immense economic uncertainty associated with the COVID-19 pandemic, and the looming end of the Brexit transition period, make this an extraordinarily difficult time to be formulating public spending plans.

- **The Spending Review comes on the back of a decade of austerity.** By 2019–20, total government spending was just 2.6% higher in real terms than a decade previously, and 4.4% lower in real per-person terms. Day-to-day spending on public services was down 7% in real terms (13% per person). **Outside of Health, real-terms public service spending was cut by 20% (25% per person) over the decade to 2019–20.** This has been the longest sustained squeeze on public spending on record. Yet **despite these cuts, on the eve of the pandemic, government spending as a share of the economy (i.e. the size of the state) was the same as in the mid 2000s.**
- Following the September 2019 Spending Round, which provided across-the-board real-terms budget increases for 2020–21, **the plans published in March 2020 would have seen public service spending rising by 10.7% between 2019–20 and 2023–24. This would have been enough to reverse two-thirds of the last decade’s cuts to per-person public service spending.**
- But COVID-19 has rendered these plans obsolete. Departments have been allocated more than £70 billion this year as part of the response to the virus. The Health budget alone has been topped up by £35 billion, or 25%. **A crucial question for the Spending Review is the extent to which this COVID-19 spending needs to continue into future years.**
- If some of these spending programmes – such as expanded procurement of personal protective equipment (PPE) or the running costs of NHS Test and Trace – need to persist, **they could swallow up a huge chunk of the increase in funding pencilled in between now and 2023–24.** Some areas of government would be left facing another bout of austerity unless more money in total is found.
- For instance, if 25% of the spending announced in response to COVID-19 needs to be permanent, that would eat up almost half of the planned £40 billion increase in departments’ non-COVID budgets between 2020–21 and 2023–24 (in today’s prices). Given the government’s commitments on the NHS, schools, the police and ‘levelling up’, **that would almost certainly require another bout of austerity for some public services.** To meet those costs while keeping non-COVID spending growing at the rate planned in March would require the Chancellor to find an additional £20 billion by 2023–24, relative to his pre-pandemic plans.

- **Public spending was at 39.8% of national income in 2019–20, much the same as it was in 2007–08**, despite the cuts in public service spending documented above. It is now likely that the economy will be smaller than expected into the medium run, and there are additional pressures on public spending. As a result, even if no COVID-19 spending continues into future years, **it is probable that total spending will settle at a significantly higher fraction of national income than it was pre-pandemic, and higher than it was after 10 years of Labour government in 2007–08.**
- **Given the huge amount of economic uncertainty, the Chancellor would be ill advised to embark on a multi-year Spending Review.** Instead, it would be sensible to limit this year's Spending Review to a single year (2021–22), and delay decisions on spending in future years until a point when some of the uncertainty over COVID-19, Brexit and the future of the economy has dissipated.

## 7. Levelling up: where and how?

This government has pushed geographic inequalities to the top of the policy agenda. In his very first speech as Prime Minister, Boris Johnson made clear his intent to boost economic performance outside of London and the South East, to 'level up' across the country and to revive the fortunes of the UK's 'left-behind' towns and cities. This is an ambitious agenda, and one that will not be quickly achieved with off-the-shelf policy solutions.

In this chapter, we consider the evidence on UK regional inequalities and place them in international context. We then assess which areas might be classified as 'left behind' and in need of 'levelling up', and how this might be affected by the economic fallout from COVID-19 and Brexit. We consider the regional inequalities in four of the factors that are often cited in the context of levelling up: spending on investment, transport and R&D as well as in where civil servants are located. Finally, we examine some of the existing programmes aimed at targeting resources to left-behind places and discuss some of the issues and risks that the Chancellor should keep in mind ahead of this year's Spending Review, which will be a chance to provide a road map for where, and how, this government plans to take its 'levelling-up' agenda forward.

## Key findings

- **The UK is one of the most geographically unequal countries in the developed world; compared with 26 other developed countries, it ranks near the top of the league table** on most measures of regional economic inequality. There are also substantial differences in earnings, wealth, health, educational attainment and social mobility across the country. That said, median living standards, as measured by net income after housing costs, are not so unequally distributed and on this measure London does not perform especially well. In addition, it is not a simple case of London and the South East versus the rest: the inequalities *within* regions are larger than the inequalities *between* regions.
- Neither the focus on nor the rhetoric around ‘levelling up’ is new, but reducing these spatial disparities is a stated priority of this government. **The UK’s regional inequalities are deep-rooted and complex: even well-designed policies could take years or even decades to have meaningful effects.** ‘Levelling up’ will need to be a long-term, multifaceted agenda if it is to succeed where other governments have failed in the past.
- There is no single set of factors that characterise a ‘left-behind’ place. In turn, this means there is no one-size-fits-all policy agenda. The challenges faced by cities such as Newcastle and Glasgow are different from those faced by towns such as Dudley and Merthyr Tydfil, which are in turn different from those faced by coastal communities such as Margate and Blackpool. **The government cannot be all things to all places.** It needs to decide what it is trying to achieve and how.
- We combine measures of pay, employment, formal education and incapacity benefits to identify which areas might be considered ‘left behind’ and in need of ‘levelling up’. These areas can be found across the country, but **left-behind places are particularly concentrated in large towns and cities outside of London and the South East, in former industrial regions, and in coastal and isolated rural areas.**

- However, layered on top of these deep-seated inequalities are the more recent economic shocks from COVID-19 and Brexit. Each will be a challenge in its own way: we find that **the traditionally ‘left-behind’ areas are *not* those most exposed to the short-term economic impact of COVID-19**. This complicates the picture with regard to ‘levelling up’, since it introduces another dimension of geographic inequality.
- There are, however, important exceptions: a number of **hospitality- and tourism-dependent coastal communities** (such as Blackpool, Great Yarmouth and the Isle of Wight), and the **centres of some Northern and Scottish cities** (such as Liverpool, Glasgow and Dundee), **face the ‘double whammy’ of being both ‘left behind’ and vulnerable to the immediate economic fallout from the pandemic**.
- **Brexit could make ‘levelling up’ more difficult**. While the economic impact of Brexit remains highly uncertain, the options on the table are likely to impose a particularly high economic cost on some groups, such as less-educated male workers in blue-collar jobs. Many of these are **concentrated in traditionally ‘left-behind’ areas in the North of England, South Wales and the West Midlands**.
- **Currently, some sorts of public spending – transport and R&D, for example – are heavily concentrated in London and the South East. Increasing spending on these in other parts of the country might help with levelling up**. But we should not forget that ‘current’ spending – especially on things such as schools and further education – may be as, if not more, effective.
- **There are at least eight existing place-based spending programmes** relevant to the ‘levelling-up’ agenda. These include the EU’s Regional Development Fund, which provides funding only until the end of this year. Rather than reinventing the wheel, the government could seek to build on these schemes, and develop a broader strategy around how they fit together.
- This year’s Spending Review is a natural opportunity to set out details on these and many other areas. **The Chancellor should pay particular attention to the important role that local governments will play in ‘levelling up’** – potentially as a part of a broader devolution strategy – and ensure that this is backed up with adequate funding, both for investment and for running costs.

## 8. The temporary benefit increases beyond 2020–21

The COVID-19 crisis has led to a profound shock to the labour market, one consequence of which is a rising number of claimants of means-tested benefits and higher entitlements among existing claimants. The Office for Budget Responsibility forecast that these effects will lead to an increase in benefit spending of £25 billion in 2020–21. On top of that, the government has announced several temporary expansions to the welfare system, including increasing the universal credit (UC) standard allowance by around £1,000 per year, suspending the ‘minimum income floor’ (and so boosting benefit entitlements among low-income self-employed claimants) and raising the maximum amount of housing support for private renters. Together, the temporary giveaways (including related changes to the legacy benefits system) cost an additional £9 billion. Between the boost to spending from underlying economic weakness and the government’s temporary giveaways, this year will see working-age benefit spending rise to 7% of national income – easily the highest level on record.

The government will soon have to decide on the future of these temporary giveaways. In some cases, they relate to areas of the benefit system that were already ripe for reform prior to the onset of the crisis. Now is therefore a natural time to think about the design of these parts of the system. In this chapter, we discuss the options that the government faces in unwinding, adjusting or making permanent these temporary expansions.

### Key findings

- The **number of families claiming universal credit (UC) has increased from 2.6 million in February 2020 to 4.2 million in May 2020**. Claimants are receiving higher entitlements than they were before – due to both the changes in their circumstances and the temporary increase in generosity of working-age benefits. Consequently, **spending on working-age benefits is now forecast to be 7% of national income in 2020–21**. This is 2% of national income higher than it was last year and the highest it has been since records began in 1978–79.

- The temporary, £1,000-a-year increase in the UC standard allowance is due to expire in April 2021. If the number of UC claimants is the same in March 2021 as it was in May 2020, **this would see 4 million families lose an average of 13% of their benefits overnight**. Some families would be hit even harder: for example, a single, childless homeowner who is out of paid work would see their UC entitlement cut by 21%.
- Choosing instead to **make the increase in the standard allowance permanent would, in the long run, cost the government £6.6 billion per year (in today's prices), adding roughly 10% to the annual cost of UC**, though undoing only a fraction of the cuts to benefits implemented since 2010. This would represent a **bigger increase to the entitlements of out-of-work claimants without children than has been seen over the whole of the past 45 years**. Nonetheless, the UK's system of support for out-of-work claimants would remain very thin by international standards.
- The minimum income floor (MIF) in the UC system caps UC entitlements among the low-income self-employed at the same level as for full-time minimum-wage employees. The MIF has been temporarily suspended; permanently abolishing it **would cost £1.4 billion in the long run and would create some big winners**, with around 450,000 self-employed households gaining an average £3,200 per year. Most of these households are in the bottom fifth of the income distribution.
- **The MIF has sensible aims**: combating fraud and avoiding subsidising non-viable self-employment. But there is room for improvement in its design; it penalises self-employed workers with fluctuating or seasonal incomes, compared with those whose incomes are more stable. **Instead of abolishing it, the government should consider adopting a cap based on a 12-month rolling average of earnings**. While there is a concern that the MIF chokes off otherwise viable businesses in their first few years of operation, **we find that – even before the introduction of the MIF – self-employed workers on means-tested benefits did not, on average, see significant increases in earnings over time**. In fact, two-thirds of those who remained in self-employment still earned below the MIF three years after becoming self-employed.

- Prior to the pandemic, the link between local rents and the amount of housing support for low-income private renters had broken down; bizarrely, maximum support related to local rents in 2011. This meant that – rather arbitrarily – **families in some high-rent areas were eligible for less support than those in low-rent ones**. The government has temporarily re-established the link, by setting the maximum housing support level so it covers the rent of 30% of local rental properties in the private sector. **A link to contemporaneous local rents is clearly more sensible than the pre-COVID system, and the government should not return to the latter.**
- Making the increase to housing support permanent would cost about £1 billion per year, with renters in London gaining the most. Alternatively, the government could set the maximum support level so that it covers 20% (rather than 30%) of local rented properties. **That would cost about the same as the pre-COVID system, but be fairer and less arbitrary.**

# 1. Global economic outlook: lessons from the pandemic

Christian Schulz (Citi)

## Key findings

- 1 **Attempts to contain the first wave of COVID-19 with hard lockdowns were costly.** Some governments succeeded and are reaping economic and political benefits from it. Others tried less successfully and may end up worse off than those that did not try or abandoned attempts early. In most cases, the bar to returning to the stringent lockdowns seen during the spring seems high.
- 2 The fiscal and monetary response has been even swifter and more comprehensive than after the 2008–09 crisis. Governments initially responded with a ‘first wave’ of measures aimed at protecting household and business incomes. This was followed over the summer by a ‘second-wave’ response targeted at boosting demand as lockdowns eased. Finally, some countries – most notably in the EU – have started to introduce ‘third-wave’ packages to help support the transition to a new normal. **Timely, well-targeted and generous support should significantly improve the chances that scarring will be minimised and a more complete economic recovery achieved.**

- 3 The 'first-wave' fiscal response saw considerable support for the labour market, which helped to keep workers attached to their jobs. In Germany, the UK, France and Italy, traditional measures of unemployment remained in single digits over the summer, but **rates of furloughing pushed total unemployment rates to nearly 25% in the latter three countries.**
- 4 In virtually every economy, the collapse of economic output in the first half of 2020 was historic. GDP fell by 10.2% in the US, 11.5% in Germany and 14.3% in the EU as a whole. Other countries suffered much worse economic shocks; GDP fell by 17.6% in Italy and 18.9% in France. **Of 28 major economies, Spain and the UK had the worst falls in GDP (of 22.7% and 22.1% respectively).** Only China continued to grow in the first half of 2020, but growth of 0.4% is a far cry from its usual growth rates.
- 5 After an economically disastrous first half of the year, most countries experienced a sharp – but generally incomplete – recovery. We expect that, **even avoiding another round of major lockdowns, most economies will not return to pre-pandemic levels of output until 2021 or 2022.**
- 6 Even when the pandemic itself is over (with the development and roll-out of a vaccine or effective medication), there will be lingering economic effects. Supply will feel the impact of depressed investment in 2020, as well as ongoing hygiene measures that remain necessary. Demand will be affected by ongoing caution, shifts in behaviour and unemployment. Even where economies recover, significant losses for creditors could crystallise. **We therefore expect all economies to remain smaller than either our pre-COVID forecast or a simple extrapolation of pre-COVID trends would imply.** The pandemic could also spark wider changes in the political landscape; a first test will be the US elections in November.

**7 Citi forecasts big GDP declines and sharp recoveries almost everywhere, with GDP reaching pre-crisis levels mostly in 2021 or 2022.** On current forecasts, China and the US look set to outperform European economies. Inflation and interest rates should stay low. There is a significant risk of divergence between the best- and worst-performing economies in this crisis; going into the final quarter of 2020, the UK has one of the worst starting points among major economies.

## 1.1 Introduction

The coronavirus outbreak and the policy response to it has not just dominated the economic and fiscal developments so far in 2020; it also sets the starting point for the rest of the year and 2021. As long as the virus remains a significant health threat – with no vaccine and no highly effective treatment – the situation remains too volatile to provide a definitive assessment of the global economic impact. Instead, in this chapter, we reflect on some of the developments of the past year and lessons to draw from them, before presenting Citi’s current global economic forecasts.

We begin in Section 1.2 by discussing how the COVID-19 pandemic and the policy response to it have unfolded in different countries. Section 1.3 discusses the economic response to this public health crisis. We analyse the ‘three waves’ of fiscal responses (from the immediate move to protect households’ and businesses’ balance sheets – and to support public services – during the lockdown, to the need to stimulate demand once the virus was (seen to be) under control, and the ongoing project of supporting economies to transition to the ‘new normal’). Section 1.4 explores the role of monetary policy. Section 1.5 analyses the short-term economic costs of lockdown, while Section 1.6 looks at longer-term impacts on the labour market, investment and private sector debt. Section 1.7 examines the potential political consequences of the pandemic. In Section 1.8, we present our forecasts for growth in the US, China and the Eurozone. Finally, Section 1.9 concludes.

## 1.2 The health response: virus control as an investment

Within little over half a year, the COVID-19 pandemic has triggered unprecedented damage around the world. By the end of September, more than 30 million people are confirmed to have contracted COVID-19, with around a quarter of a million new cases each day according to World Health Organisation (WHO) data. The number of people who have died after contracting COVID-19 has surpassed 1 million and countless others have been hospitalised with severe cases. The long-term health consequences of the illness, even of mild cases, are unknown.

Until comprehensive medical treatment or vaccination is developed and delivered at scale (see below for progress on that), the spread of the virus looks set to continue (if not accelerate in some countries). However, the global hotspot has shifted from East Asia to Europe, and now to the Americas and lately India. Scientific research into the factors driving its spread and deadliness continues to make advances. Those which have been identified include climate, seasons, demographics, urbanisation, social culture, healthcare resources and pandemic management (including voluntary and imposed social distancing as well as testing strategies, for example). But luck or misfortune clearly also plays a role and we are careful not to heap praise or criticism on any particular government for its performance at any particular point in time, as some have gone quickly from relative good performers to weak ones – and vice versa.

Among large western economies, the United States has so far suffered the highest confirmed incidence of COVID-19, with 1.8% of the population having tested positive by the end of September. The actual incidence is probably several times higher, but still likely to be far below the 60–70% needed for ‘herd immunity’ (assuming the virus generates an average of three new cases per infection). Other major industrialised economies report (confirmed, again by the end of September) incidence levels of 0.1% (Japan) to 0.5% (UK), also still far away from herd immunity.

Besides the number of confirmed cases, the share of the population who die after contracting COVID-19 is an important indicator: it describes one of the dangers emanating from the disease and thus influences people’s behaviour. On this measure, Spain has had the worst pandemic so far among large industrialised

Table 1.1. G7 and Spain: pandemic, healthcare, health policy and voter satisfaction indicators, September 2020

Country	COVID-19 outcome			Healthcare resources			Policy			Government record		
	Confirmed cases per million	COVID-19 deaths per million	COVID outcome rank	Healthcare spending (% of GDP)	ICU beds (per 100,000 inhabitants)	Health resource rank	Lockdown stringency per case per 1,000	No. of tests (per confirmed case)	Policy rank	% confident not to catch virus	% trust in gov't handling of virus	Gov't rank
Germany	2,864	114	2	11.7%	29.2	2	15.9	43	2	60%	71%	1
Canada	3,403	252	3	10.8%	13.5	3	13.7	41	3	43%	75%	2
Japan	511	12	1	11.1%	7.3	6	57.6	20	1	25%	42%	8
Italy	4,327	593	5	8.7%	12.5	5	12.7	31	5	39%	67%	3
France	4,268	474	4	11.2%	11.6	4	12.2	21	6	49%	38%	6
UK	4,949	633	6	10.3%	6.6	8	9.8	46	4	52%	40%	5
US	17,609	627	8	17.0%	34.7	1	2.7	13	8	37%	38%	7
Spain	8,789	672	7	9.0%	9.7	7	5.5	21	7	55%	45%	4
Source	JHU	JHU		OECD	Statista/ WHO		Oxford University	Statista		YouGov	YouGov	

Note and source: See the next page.

**Note and source to Table 1.1**

Note: Confirmed COVID-19 cases (as of 29 September 2020) and number of deaths from COVID-19 (as of 21 September 2020) are measured per million population. ICU beds per hundred thousand are based on the latest-available WHO data, in 2009 for the US, 2012 for the European countries and 2017 for Japan. The Oxford University lockdown stringency index tracks the daily level of typical measures such as school and shop closures, stay-at-home orders, restrictions on public gatherings or closures of public transport. YouGov data on confidence in not catching the virus and trust in government handling are based on the latest data available, from late August to early September. Healthcare spending as per OECD data. Testing as per Statista data. Countries are ordered based on their average rank across the four domains in the table (COVID-19 outcomes, healthcare resources, policy and government record).

Source: Johns Hopkins University (JHU), WHO, OECD, Statista, Oxford University, YouGov and Citi Research.

economies, with around 675 COVID-related deaths per million residents recorded by Johns Hopkins University and WHO by the end of September. The UK and US, with around 630 COVID deaths per million, are not too far behind, while Canada (~250), Germany (~115) and especially Japan (12) have fared much better so far (see Table 1.1). On current trends, the US – where the daily death rate was much higher in September than in other developed countries – looks set to lose further ground on this measure.

Questions about the quality and comparability of the data, especially on fatalities, make it difficult to rank economies in terms of the severity of the outbreak. With that in mind, we compare the G7 countries and Spain on a ‘COVID-affectedness’ measure that incorporates both their COVID-19 case rates and death rates (each per million population).<sup>1</sup> On the resulting measure, Japan has had the most benign pandemic so far, with Germany just behind. Spain and the US have had the most severe pandemic.

Resources in the healthcare system were a key bottleneck in dealing with the initial wave of the virus, as harrowing pictures and accounts (in particular from Northern Italy) suggested a clear risk of healthcare systems being overwhelmed and unable to

<sup>1</sup> Specifically, we first divide each measure by the average among the eight countries in our sample (which gives a measure of how many times above or below average each country is). We then add these two factors together within each of the four dimensions in Table 1.1, and rank the subsequent sum.

protect and deliver care to all vulnerable people. Ahead of the winter months, when other illnesses (such as seasonal flu) will probably add more strain on the availability of hospital beds and ventilators, health ministers will once again take their resources into account. High-level indicators of healthcare resources suggest that the US had the best starting point, with the highest number of ICU beds (35 per 100,000 people) and the highest expenditure on healthcare relative to the size of the economy (17.0% of GDP), followed by Germany (29 and 11.7%). The UK had the worst starting point among the G7 countries and Spain, with 7 ICU beds per 100,000 people and 10.3% of national income spent on healthcare, followed by Spain (10 and 9.7%) and Japan (7 and 11.1%). Among the major European economies and Canada, the healthcare resources ranking correlates well with the health outcomes from the pandemic. However, the US had the best starting point but has had the worst pandemic, while Japan had one of the worst starting points but the best outcomes so far.

That suggests that other factors were also key drivers of the severity of COVID-19. It seems clear that some of these other factors related to the public policy response, including the timing and extent of social distancing measures and the availability of testing. Oxford University data suggest that Japan imposed very stringent social distancing measures early in the path of its epidemic. After a slow start, by 21 September the UK had been carrying out the highest number of tests relative to the number of cases confirmed. On these measures, Japan, Germany and Canada took stronger policy action when the virus was relatively less prevalent; of the countries considered, they have also had the smallest outbreaks. The US and Spain were the least determined in policy measures and also ended up with the most severe outbreaks so far.

At least for now, containing the outbreak is paying off politically where governments have done relatively well. Germany's government, which has presided over the least severe outbreak in Europe so far (as well as having the greatest health resources in Europe going into the pandemic, and the most stringent measures compared with the size of its outbreak), scored best among all economies we considered in YouGov's polls for trust in the government's handling of the crisis. In France and the US, which have had worse pandemics despite their resources, governments now command less trust. Citizens with more trust in government also seem less worried about their own risk of catching the virus, which in turn should help them return to activities such as work and shopping.

In our view, this highlights that success during the first wave in controlling the virus, and especially in implementing successful policy measures to mitigate its health effects despite the associated economic cost, was an investment into limiting economic damage going forward. However, with second waves now appearing in many European countries, even governments that were relatively more successful during the first wave will need to demonstrate to their citizens that they are able to respond appropriately to any resurgence in the virus.

Indeed, it is clear that the pandemic continues in all regions around the world, albeit with different dynamics. Many parts of the world are still in the first wave, while others are experiencing new surges in cases following a loosening of social distancing measures. So far, these ‘second waves’ seem to be less deadly than those experienced in early spring. Partly this is a matter of time; changes to the hospitalisation and death rates typically lag infections by several weeks. Partly this is the result of better data, which give a more accurate picture of the extent of the outbreak; in most countries, more widespread testing allows public health authorities to pick up milder cases that might previously have gone undetected (or at least unconfirmed). There are also indications that, so far, the second wave has disproportionately hit young people, who seem to cope better with the disease (although the long-term effects of getting ill with the disease are not known). Better management of the pandemic (for example, through tracing known contacts and more localised policy responses) and external factors such as the seasons or demographics might also have helped to contain the size of recent outbreaks. There are also some indications that the fatality rate of the disease has been brought down, with some studies seeming to show that the fatality rate among patients in intensive care is falling as better treatments are discovered. Some governments (Belgium and the US, for example) seem to have successfully ‘flattened the curve’ of the second wave, using social distancing measures.

Determined government responses – factoring in trust in government and all the other factors – look likely to be necessary until effective medication or a vaccine has been found and delivered. It is clear that the earlier governments act, based on accurate information on the spread of the virus from testing, the more likely they can avoid losing control again and having to impose highly restrictive and economically damaging national lockdown measures.

### The prospects for a vaccine

While there are several promising candidate vaccines currently working their way through the approvals process, the timeline for an effective and approved vaccine is inherently uncertain. Citi economists' working assumption is that the trials of a first vaccine from the UK will conclude in late November or early December, likely prompting a quick review by the regulators (Kim et al., 2020). Kim et al. also report that a manufacturing partner in India (Serum Institute of India) is planning to produce 300–400 million doses of the vaccine by the end of 2020. The UK vaccine is not the only plausible candidate; other vaccines – for example, from Germany, the US and China – are also currently in Phase 3 trials and so, if successful, could enter mass production phase by year-end or early next year.

Once approved, it will take some time before enough doses are produced to protect at least the most vulnerable part of the population. The sum of the companies' global COVID-19 vaccine production targets by the end of 2020 would be around 400–500 million doses, which could be enough to vaccinate large parts of critical groups such as doctors, nurses and healthcare workers. For 2021, the global COVID-19 vaccine supply targets of the companies sum to around 10.1–10.7 billion doses.

Governments have placed pre-orders on a number of the vaccines being developed. The sheer number of COVID-19 vaccine pre-orders<sup>2</sup> from the US (800 million doses by mid August), the EU (800 million doses), Japan (490 million doses) and the UK (340 million doses) means that much of the early production of a successful vaccine would likely go to the developed markets region in the first six months after the vaccine is approved. Even under an optimistic scenario of mass vaccine production, starting from the end of this year or early next year, we may have to live with the risk of additional waves of COVID-19 through the first half of 2021.

<sup>2</sup> Note that most vaccines will need two doses to achieve immunity, and not all of the vaccines might be successful, so the numbers given give a better idea of the kind of investment governments are making here and the likely distribution, rather than the number of people or share of population who might soon be immunised.

## 1.3 Three waves of fiscal responses

While health ministers fought to contain the spread of the virus, finance ministers played a key role in funding the response and cushioning its economic and financial impact. Fiscal policy has a crucial role to play in alleviating the impact of the crisis, accelerating the recovery and – going forward – facilitating any structural changes due to longer-run consequences of the pandemic. Around the world, governments have announced fiscal packages of unprecedented sizes and continue to do so. We can distinguish the packages in three ‘waves’ according to their function.

### The first wave of fiscal responses: protecting incomes

In the first wave, governments tried to shoulder businesses’ and households’ losses due to the lockdown, in order to protect their incomes and balance sheets.

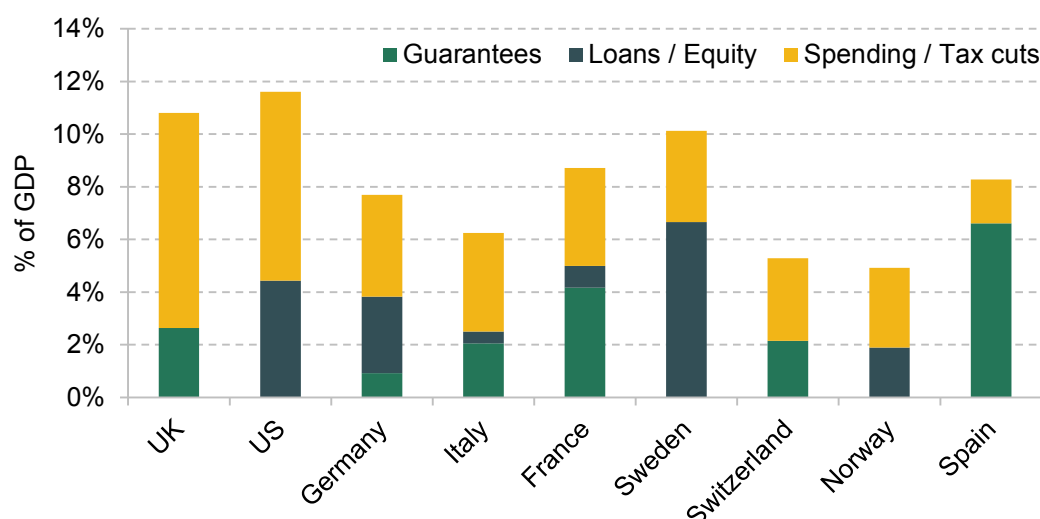
Especially in Europe, many governments activated, expanded or created furloughing schemes as an alternative to traditional unemployment schemes, providing state funding for the bulk of employers’ wage costs. Furloughing had previously proved to be a valuable tool for preventing mass unemployment and preserving employer–employee links – for example, in Germany during the 2008–09 financial crisis.<sup>3</sup>

Many governments also introduced new or more generous welfare benefits, often temporarily. For example, the \$2 trillion CARES Act in the United States substantially beefed up existing unemployment benefits by \$600 per week with federal money until 31 July and provided one-off cheques worth \$1,200 per adult, while the UK government increased the standard allowance of universal credit by £20 per week for 2020–21 (see Chapter 8). Many governments, including the UK, paid out grants to the self-employed.

Businesses have benefited from a whole range of support tools such as tax deferrals, loan guarantees, wage subsidies or even direct grants (or forgivable loans) to cover their fixed costs during the pandemic, such as the \$670 billion US Payroll Protection Program or Germany’s current €25 billion bridge funding scheme for small and medium-sized businesses.

<sup>3</sup> See, for example, Walz et al. (2012).

**Figure 1.1. Overview of ‘first-wave’ fiscal responses to protect incomes (% of GDP)**



Note: ‘Spending / Tax cuts’ includes all fiscal income replacement measures such as furloughing, increased welfare, grants, tax cuts or deferrals, etc. ‘Guarantees’ is loan guarantees with varying guarantee levels (usually 80–100%) and interest rates, where we show the actual take-up only. ‘Loans / Equity’ includes forgivable loans to businesses and households as well as direct equity injections. All measures announced by end of April 2020.

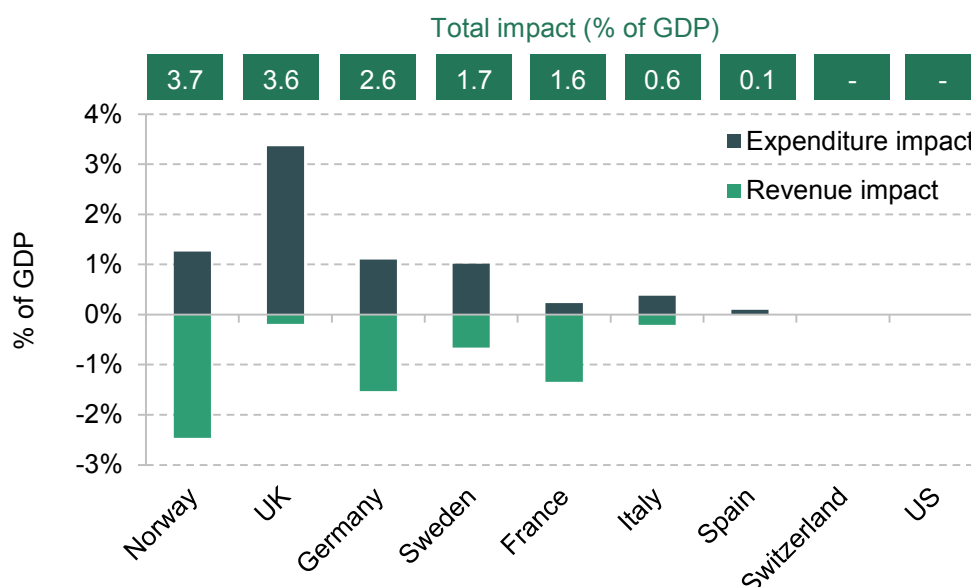
Source: Government announcements and Citi Research.

Figure 1.1 shows how much funding countries have committed to these ‘first-wave’ responses as a share of the size of their economies. Different countries made very different decisions: these first-wave packages range in value between 4% and 12% of the size of the economy. However, we would not overstate the differences, for two reasons. First, the numbers in Figure 1.1 only cover measures directly related to the pandemic; going into the crisis, some countries already had generous automatic stabilisers, while others – most obviously the United States – had to catch up. Second, these ‘first-wave’ measures could in practice drag on for many months: many governments will probably absorb loans into equity later on, or will retroactively compensate households, firms and banks for losses incurred during the lockdown.

## The second wave of fiscal responses: demand stimulus

In a second wave of fiscal responses, governments are trying to boost demand and stimulate economic activity to help the economy recover as lockdowns ease. These ‘second-wave’ packages only start when the economy reopens and are designed to boost demand. Figure 1.2 shows the size of these packages for a selection of

**Figure 1.2. Overview of ‘second-wave’ fiscal responses to stimulate demand (% of GDP)**



Note: Measures announced by end of August 2020.

Source: Government announcements and Citi Research.

economies, distinguishing between stimulus from higher public spending and stimulus from lower tax receipts. The packages announced so far typically range between 1% and 4% of GDP, with a bias towards tax cuts. One of the most common measures has been a temporary cut in VAT (sometimes across the board, sometimes targeted at specific sectors judged to be most in need of support). Temporary tax cuts may encourage households to spend in the next few months.

### The third wave of fiscal responses: transition to the ‘new normal’

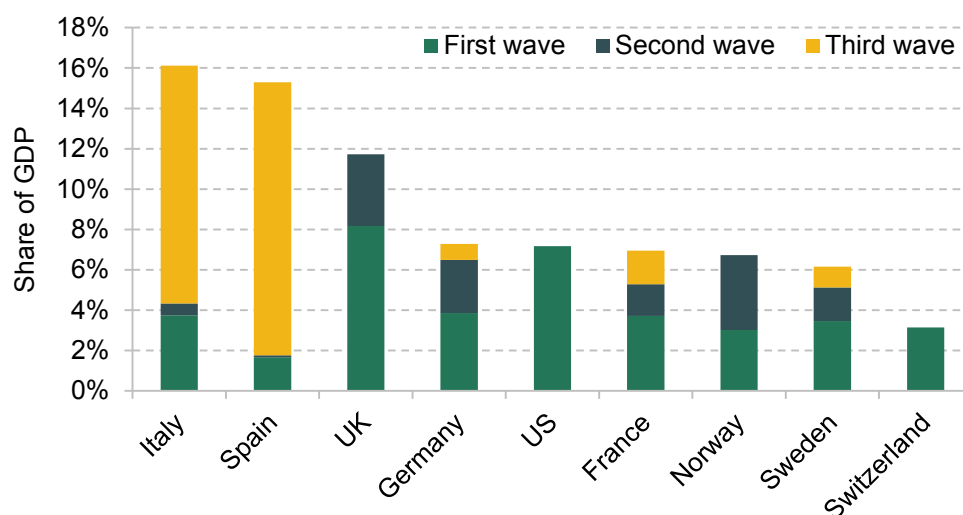
A third wave of fiscal responses will help economies to transition to the ‘new normal’ after the pandemic. This means both carefully facilitating structural changes and reconstruction in the economy and compensating vulnerable regions and the parts of society that suffer most from the long-term consequences. These packages may be fiscally neutral (though for most it is too early to tell); they are also often accompanied by structural reforms to improve the flexibility of the economy and focused on public investment to boost growth structurally rather than just temporarily. For example, this ‘third-wave’ response includes the EU’s

€750 billion ‘Next Generation EU’ package, which includes the €672.5 billion Recovery and Resilience Facility (RRF).

So far, relatively few countries have announced substantial ‘third-wave’ packages; the EU’s RRF is, by a long way, the largest such policy. This tool will channel €312.5 billion of grants and €360 billion of cheap loans to EU member states to fund investment in digitalisation and green technologies, with the largest share targeted at the Southern European countries which entered the crisis in worse financial positions and have suffered heavily during the pandemic.

Figure 1.3 shows the total fiscal response across all three of these ‘waves’, as of end of August 2020. Thanks largely to the EU RRF, Southern Europe may enjoy the greatest fiscal tailwind in the coming years. However, most of their support will not come until next year, leaving these countries’ economies relatively exposed to the crisis in 2020. By contrast, the US with its CARES Act and the UK are spending most relative to their GDP on protecting private sector balance sheets (‘first wave’),

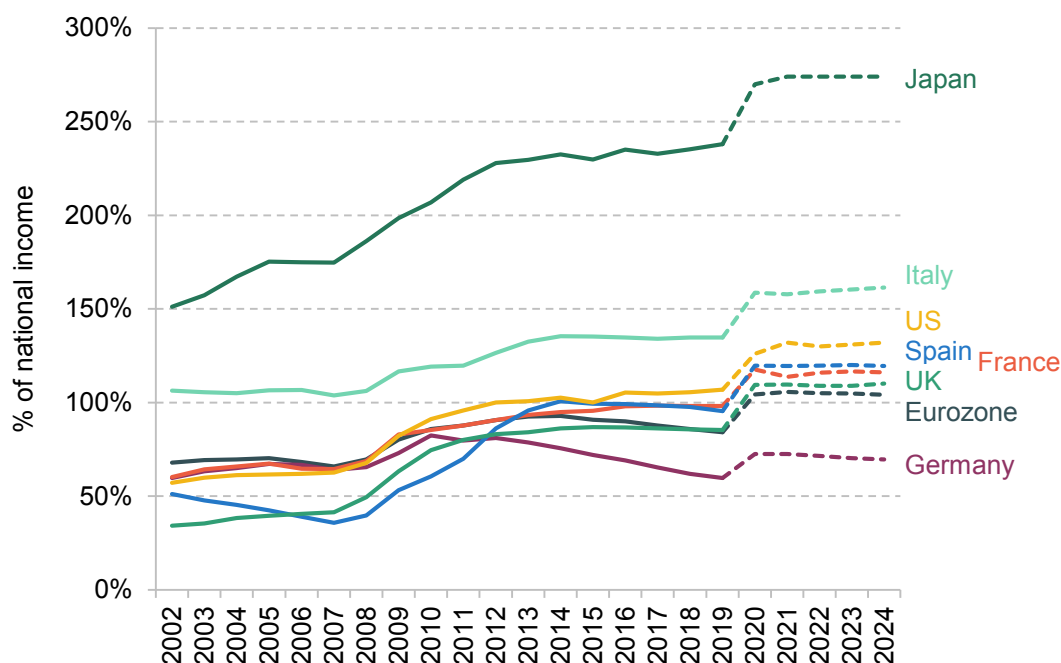
**Figure 1.3. Combined fiscal responses to the COVID-19 pandemic (total size of policies announced as a share of 2020 GDP)**



Note: ‘First wave’ only includes actual spending / tax cuts (and excludes the guarantees, loans and equity measures shown in Figure 1.1). ‘Third wave’ currently largely includes the EU’s recovery fund. The figure represents total packages announced by August 2020 as a share of 2020 GDP, not annual numbers.

Source: Government announcements and Citi Research.

**Figure 1.4. Debt as a share of national income in selected developed economies**



Note: Debt-to-GDP ratios from 2020 onwards are based on Citi forecasts.

Source: OECD and Citi Research.

while the UK, Germany and the Nordics have so far announced the most in conventional demand stimulus ('second wave').

Such large fiscal measures, in combination with existing automatic stabilisers such as unemployment benefits or progressive income tax systems, are leading to very large deficits and rising public debt as a share of national income (see Figure 1.4). In many economies when the pandemic struck, these had hardly declined from the highs reached after the 2008–09 financial crisis.

One of the key drivers of the shallow recovery and low inflation after the 2008–09 crisis was – at least in retrospect – premature attempts by governments to bring down their debt levels, which had spiked during the crisis due to the recession and policy responses such as bail-outs. Over the next few years, we can expect a debate about how to adapt fiscal rules and frameworks to underpin trust in government finances (despite debt ratios that are high by recent historical standards) while maintaining enough flexibility to respond to future economic shocks. Credible yet flexible fiscal frameworks are always important, but will be particularly essential in

the coming years because fiscal policy is now the only remaining macro-stabilisation tool (see Section 1.4).

We cannot rule out that some governments will push for a relatively swift fiscal tightening in order to restore traditional fiscal anchors (such as the EU's Maastricht Treaty commitments to ceilings of 3% of GDP on the deficit and 60% of GDP on public debt). But these traditional fiscal anchors will, by and large, look unachievable given the enormous rise in debt countries have incurred during the current crisis. We expect that most economies will need to find new reference points and hopefully ones that are better designed.

However, it is also possible that some governments will try to cut corners with attempts to use artificially low interest rates (potentially involving some form of capital controls or financial repression) and higher inflation to reduce their debt burden. This will be more difficult in larger industrialised economies with independent central banks, especially in countries that depend on a steady influx of foreign capital (since controls on capital outflows would likely lead to a sharp reduction of inflows as well).

## 1.4 Monetary policy: support act

Traditionally, central banks are the first line of defence in any recession or crisis, and COVID-19 is no different. Across the world, central banks swiftly cut interest rates where they still could (among major central banks, only the Fed and the Bank of England still had interest rates that were sufficiently positive before the crisis to allow them space to cut). Many also expanded their balance sheets by around 10–15% of GDP with large-scale asset purchase programmes for government and private sector bonds as well as new cheap loans to banks in order to boost lending to the real economy (see Table 1.2).

Following this first wave, central banks are currently reviewing how to boost their support further. One mechanism is to allow for more inflation: provided that bond yields are set in nominal (cash) terms, higher inflation would lower real-terms yields (which are the true constraint for business investment). The Fed announced in August that it will not just tolerate but seek for inflation to overshoot its 2% target in order to make up for past undershoots. The European Central Bank (ECB) is also conducting a strategy review which could end up with tweaks to the inflation target. The Bank of England is showing signs that it will no longer rule out a

negative policy interest rate (in fact, Citi expects a slightly negative Bank rate by mid 2021). In addition, the Bank of England has introduced new forward guidance stating that tighter monetary policy is not in sight before there is ‘clear evidence that significant progress is being made in eliminating spare capacity and achieving the 2% inflation target sustainably’. Other central banks may also use guidance to anchor market expectations for the next interest rate hike to such a degree that inflation expectations can rise and push lower real yields.

**Table 1.2. Central bank rate cuts (bps) and announced asset purchases (% of GDP) in selected economies**

	Fed	ECB	BoE	BoJ	SNB
<b>Interest rate cuts</b>					
Policy rate (%), end of Dec. 2019	1.5–1.75%	–0.5%	0.75%	–0.1%	–0.75%
Policy rate (%), end of Jul. 2020	0–0.25%	–0.5%	0.1%	–0.1%	–0.75%
Rate cut (bps), Jan.–Jul.	150	0	65	0	0
<b>Balance sheet expansion (% of GDP)</b>					
Central bank balance sheet, end of Dec. 2019	19%	39%	22%	104%	123%
Central bank balance sheet, end of Jul. 2020	32%	53%	33%	121%	136%
Balance sheet expansion, Jan.–Jul.	13%	14%	12%	17%	13%

Note: ‘Fed’ is the Federal Reserve Bank (US), ECB the European Central Bank (EU), BoE the Bank of England, BoJ the Bank of Japan and SNB the Swiss National Bank. Basis points (bps) are equal to 0.01%.

Source: Fed, ECB, BoE, BoJ, SNB and Citi Research.

Despite this, central banks have arguably not had the prominent role during this crisis that they had in 2008–11, for two reasons. Unlike the 2008–09 crisis, the current crisis did not originate in the financial system. Central banks have also seen their scope for additional support limited by the fact that most central banks were at or close to their effective lower bound and so were not able to lower interest rates substantially further.

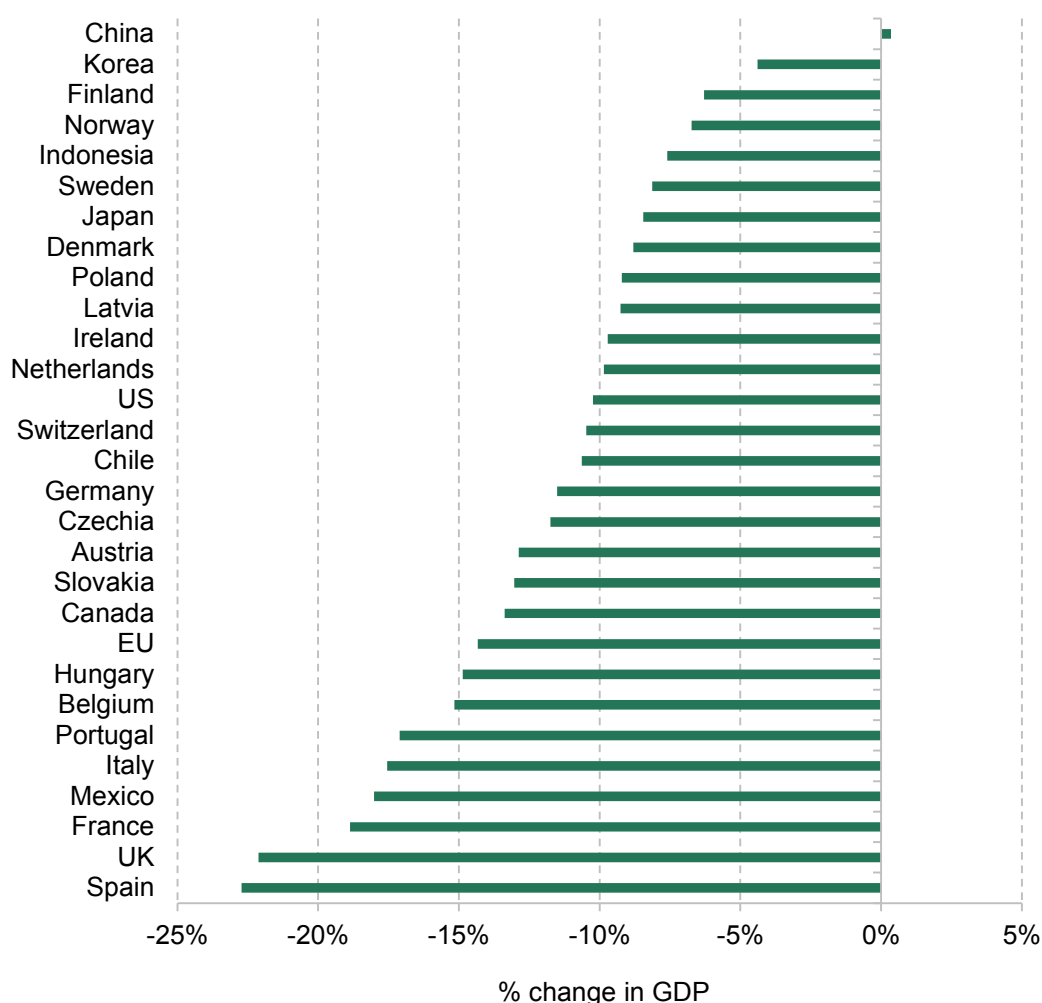
Still, central banks played an important support role for fiscal policy. Especially in the early stages of the crisis, they had to make sure that the enormous extra debt issued by governments did not crowd out private sector borrowing and thus lead to a credit crunch. Central banks' own purchases of government bonds played an important role in averting this. (See Chapter 5 for a discussion of this in the UK.)

In their quest to return inflation to their targets – and in some cases, such as the US, at least temporarily beyond that – central banks will probably keep interest rates extremely low and balance sheets very large for years to come. While there are some inflationary risks from lingering supply issues (see Section 1.6) and perhaps fiscal stimulus packages (see Section 1.3), overall we expect that these inflation targets will remain out of reach because of the downward pressure on prices from the shock to labour markets and capacity utilisation in most parts of the world. To some extent, this is already becoming evident – for example, with a dramatic fall in oil prices during the lockdown and only partial recovery since.

## 1.5 Economic impact: the cost of lockdowns

Beyond the tragic human toll, the impact of the pandemic is aggravated by the extraordinary economic damage it has caused. Around the world, the pandemic and the measures to contain it have caused falls in economic activity which dwarf those experienced during the last big crisis in 2008–09.

Figure 1.5 shows that, of the larger economies that have so far reported official numbers, Spain and the UK have experienced the biggest slumps in the first half of 2020, with GDP declining by nearly a quarter. France (–19%) and Italy (–18%) are not far behind. Canada (–13%) was in line with the G7 average of –13%; the US (–10%) and Germany (–12%) were slightly less bad. The best performers were in the North and East of Europe as well as in East Asia. But even China, the only

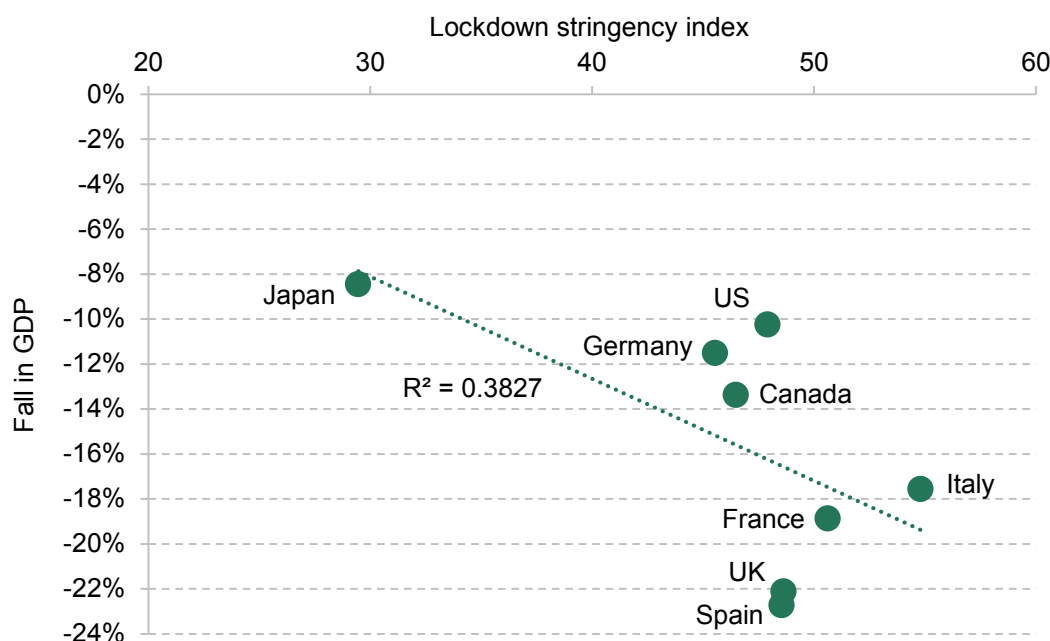
**Figure 1.5. Percentage change in GDP between 2019 Q4 and 2020 Q2**

Source: OECD and Citi Research.

major economy that eked out a positive number in the first half of the year (+0.4%), performed historically badly relative to its usual growth rates.

These international comparisons provide clear patterns of where the economic impacts have been greatest, but some caution is needed in interpreting these international comparisons: differences in GDP accounting between countries may only trigger small differences in measured growth rates in normal times, but can be blown out of proportion in these extraordinary circumstances. One example is the accounting of consumption of public services, which has led to measured increases in quarter 2 (Q2) in some countries (Germany, Italy) but sharp declines in others

**Figure 1.6. Correlation between average lockdown stringency and GDP decline in the first half of 2020**



Note: The  $R^2$  is a measure of the share of the variation in the fall in GDP that is explained by variation in lockdown stringency. Lockdown stringency is measured on a scale from 0 to 100 (least to most stringent measures); we take the average from January to June 2020.

Source: OECD, Oxford University and Citi Research.

(France, UK). In any case, the hit in the first half of 2020 reveals little about the further path of these economies.

As Figure 1.6 shows, the severity of lockdowns was a key contributor to the fall in GDP, but not the only one. People's voluntary social distancing, the monetary and fiscal response to the pandemic, and the exposure of each economy to sectors particularly hard hit by the virus all played a role as well.

The good news is that, unlike in 2008–09, the COVID-19 crisis has a single external proximate cause, rather than being the result of a build-up of imbalances within the economic system. If the pandemic does not last long (for example, because a vaccine is found, produced and delivered quickly), and if it is handled well, in theory the crisis does not have to leave major permanent marks on economic activity; for example, previous pandemics in East Asia have left few if any lasting marks on economies there. Of course, for many economies, the health consequences of and the economic disruption engendered by the COVID-19 pandemic have far exceeded what has been seen in some of these other cases; the

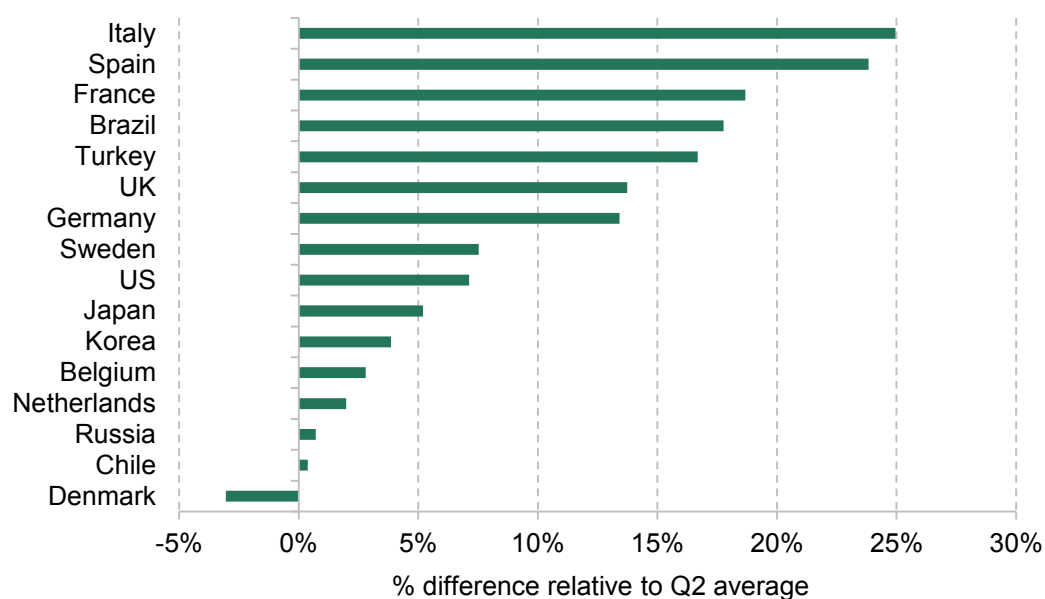
longer the pandemic period lasts, and the more severe the disruptions to daily life, the more likely that economies will suffer long-term consequences.

As governments got the first wave under control (or accepted the health risks of the virus), economies started to recover. Figure 1.7 shows that most major European economies saw July industrial production data (the latest available) at least 10% above its Q2 average. Without any further changes in Q3, the July rise would see production rebound by between 8% in Sweden and 25% in Italy, following falls of 16–19% quarter on quarter (QQ) in Q2.<sup>4</sup>

Likely in part due to temporary shifts in preferences (such as households replacing restaurant visits with home cooking or public transport with bikes or cars), but also expressing some pent-up demand, retail sales and car registrations exceeded pre-crisis levels by the end of Q2 or in early Q3 almost everywhere. Other high-frequency data such as Google mobility data, restaurant bookings or truck toll kilometres also point to a sharp recovery in activity (see Figure 1.9 in the next section), albeit at different paces. In many countries, monetary and fiscal support (see Sections 1.3 and 1.4) may only really boost activity in the second half of the year, further boosting chances of a continuing recovery, provided the pandemic remains under control and no new disruptive lockdowns are necessary.

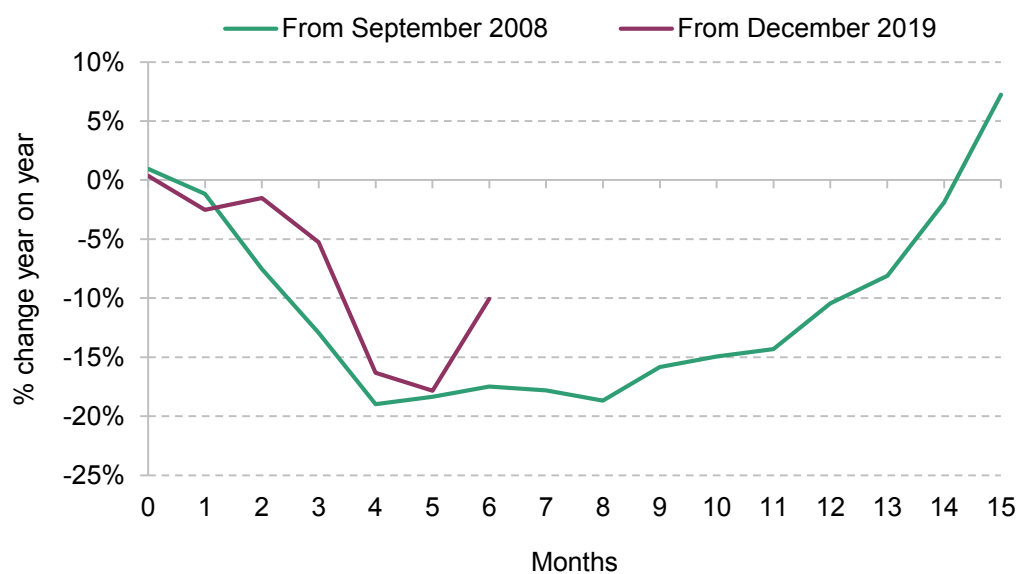
Global trade is also making a return, with data from CPB (the Netherlands Bureau for Economic Policy Analysis) suggesting global trade volume in June was only down 10% year on year (YY), compared with –18% YY at the trough in May. The decline in global trade actually was a little less severe than in 2008–09 and the recovery appears to be quicker (see Figure 1.8), perhaps because of the switch from services consumption to relatively more trade-intensive goods consumption during the pandemic. We can thus safely say that the historically bad second quarters in most of the world will be followed by historically good third quarters. But, as pent-up demand peters out and a number of governments tighten social distancing measures to combat the resurgence of the virus over the winter, the question will be how much of this strength persists through the fourth quarter of 2020 and beyond.

<sup>4</sup> This does not necessarily mean that countries are back to where they started before the pandemic. Since these percentage changes are calculated quarter on quarter, a 20% fall would need to be followed by a 25% rise to return production to its original level.

**Figure 1.7. Industrial production in July compared with Q2 average (%)**

Note: Industrial production excluding construction.

Source: OECD and Citi Research.

**Figure 1.8. Global goods trade volume (% change year on year), after the financial and current crises**

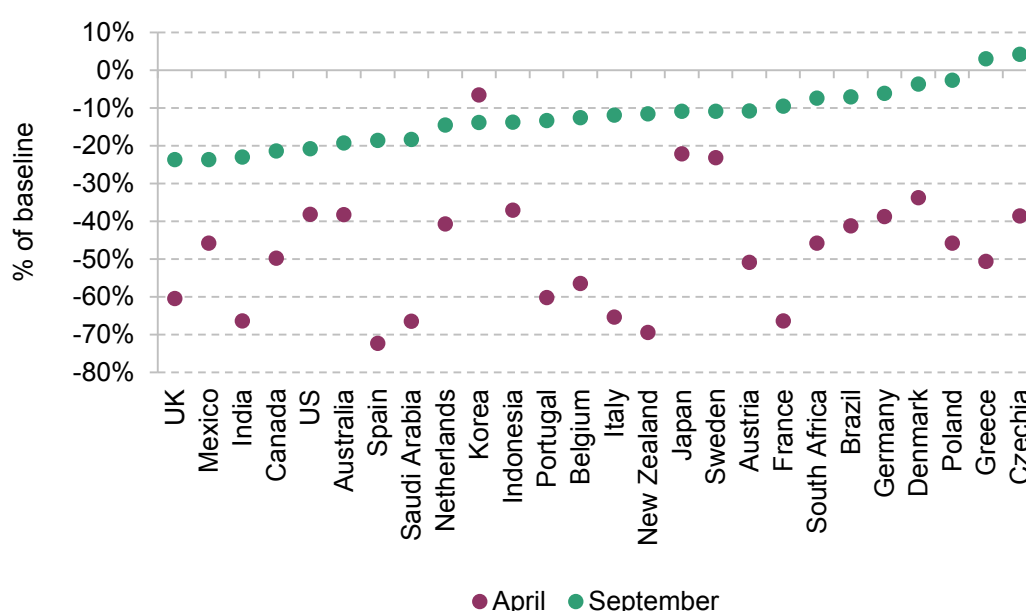
Source: CPB and Citi Research.

## 1.6 Lingering effects

Although a vigorous recovery was under way over the summer across industrialised economies and many emerging markets, we expect most economies to operate significantly below pre-crisis levels of output for a considerable period of time. Citi forecasts most economies to return to their pre-crisis levels of output only in the second half of next year, or perhaps even in 2022 or beyond.

Even after the end of (the first wave of) mandatory lockdowns in most western economies, people's behaviour as shoppers and workers remained significantly different from normal. Figure 1.9 shows the combined daily footfall in grocery stores, non-food retail, entertainment venues, workplaces and public transport stations, relative to its pre-pandemic baseline, in April and the first half of September 2020. In September, Greece and the Czech Republic were the only countries in the sample where mobility was above the baseline. A few others were less than 5% away from normal. The vast majority, however, including all G7

**Figure 1.9. Google mobility data for retail, entertainment, workplaces and public transport (% of baseline)**



Note: Google mobility data track the number and length of visits to certain places by mobile phone users. Up until 11 September 2020. Baseline: Median activity 3 January to 6 February 2020.

Source: Google and Citi Research.

nations, still operate at 5–25% below normal, with Germany at –6% and France at –9% leading the way ahead of Japan (–11%) and Italy (–12%). The US and Canada at –21% each and the UK at –24% were even further away from pre-crisis levels of mobility. And, of course, the tightening of social distancing measures this autumn will in all likelihood see many of these measures trend even further downward.

The overall patterns in Figure 1.9 hide variations in where people are going. In September, footfall in grocery stores in the countries in our sample had returned to pre-pandemic levels on average. But for other types of retail, as well as recreation, it remained down 4%. Footfall in public transport stations was still down by 21% in September, and for workplaces it was down by 27% on average. These figures suggest that, while customers had started returning to shops, many workers and travellers were still staying home over the summer. There is likely to be even more regional variation – for example, with people staying away from usually busy city centres, which means a lot of their shopping and entertainment infrastructure is underutilised.

Besides the immediate fear of catching the virus and ongoing (and intensifying) social distancing measures, there are a number of lingering effects which will delay a full economic recovery (not just to where output was before the pandemic, but to where it would have been had the pandemic not happened). These include impacts on the labour market, lower investment, newly accumulated household and business debt, and a general move away from globalisation and trade.

## Labour market scarring

The labour market is a lagging indicator of the state of the economy, so it is no surprise that in most countries, it is nowhere near normal. However, in many cases, the effects of the pandemic are not yet evident in traditional indicators such as the unemployment rate or employment, which in some cases have hardly moved. We can instead look at an expanded definition of unemployment, which takes into account both furloughed workers and those who have temporarily left the labour market altogether (for example, to homeschool their children or look after relatives during the lockdown). On this measure – which still does not reflect reduced working hours – unemployment in large economies ranges between 10% in the US in the August data to around a quarter of the workforce in the UK, France, Italy and Spain (see Table 1.3).

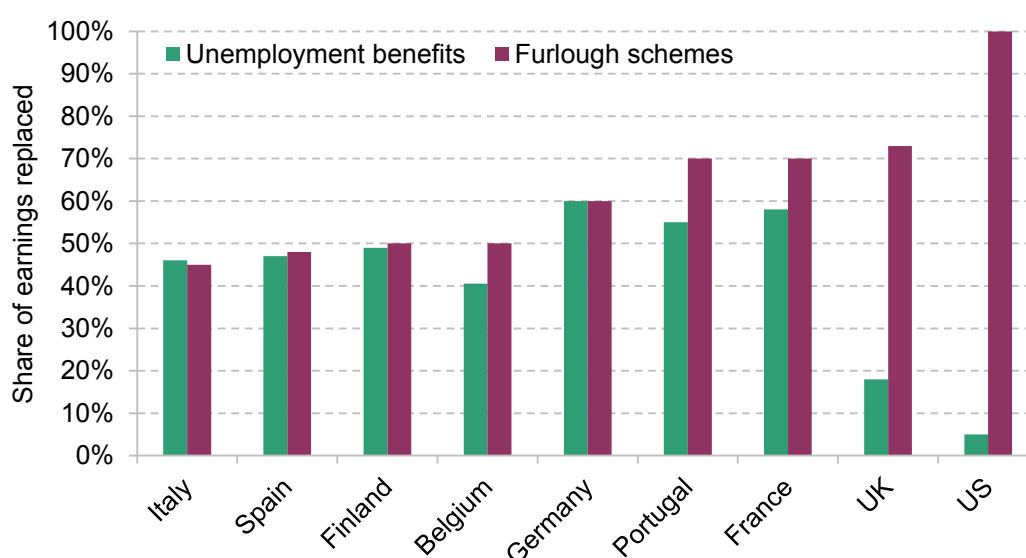
Table 1.3. Measures of unemployment as a share of the workforce

% of workforce	US	UK	Germany	France	Italy	Spain
Unemployment rate	8.4%	4.1%	4.4%	6.9%	9.7%	15.8%
Furloughing rate (latest)	0.0%	19.0%	9.0%	18.0%	13.4%	4.0%
Change in participation rate since February	1.7%	0.2%	N/A	N/A	N/A	3.4%
<b>Total</b>	<b>10.1%</b>	<b>23.3%</b>	<b>13.4%</b>	<b>24.9%</b>	<b>23.1%</b>	<b>23.2%</b>

Note: Latest available data – June for the UK and France, July for Italy and August for the US, Germany and Spain. Spain and UK participation – change between 2020 Q1 and Q2.

Source: Bureau of Labor Statistics, Office for National Statistics, Eurostat, national labour agencies/ministries and Citi Research.

Figure 1.10. Share of net earnings replaced by furlough payments and standard unemployment benefits 2019–20



Note: Unemployment benefits for six months for average-wage worker excluding housing benefits. For the US, we present replacement rates for the 'furlough scheme' inclusive of the \$600 per week federal top-up to unemployment benefits, which acts as a de facto furlough scheme.

Source: OECD; Ganong, Noel and Vavra, 2020; Citi Research.

Experience suggests a long period of elevated slack in the labour market ahead, with higher labour supply than labour demand leading to unemployment. In the last big crisis in 2008–09, it took the US and the Eurozone seven years to return from the peak unemployment rate to the pre-crisis trough; in the UK, where employment fell by less, a return to full employment was quicker, but still took four years. The depth of this crisis has led to higher unemployment (sometimes disguised as furloughing or inactivity) than in 2008–09 in most economies. Of course, if the overall economic recovery from this crisis is swifter and more complete than after the financial crisis, it should support a quicker recovery in employment as well.

In addition, as temporary furlough schemes (or, in the US, the generous extra unemployment benefits that acted as a de facto furlough programme) are wound down, some of these employees will return to their original jobs. However, even most of these relatively more fortunate workers will still have faced a considerable time with lower-than-usual incomes, given that the wage replacement rates of unemployment benefits as well as furloughing payments are at best 80% of previous net earnings for the average worker (see Figure 1.10, which shows replacement rates in terms of net earnings). The exception is the US, where the CARES Act created a 100% replacement rate for the mean worker, which translated into an estimated 134% replacement rate for the median worker (Ganong, Noel and Vavra, 2020) until it expired on 31 July.

Should these high levels of cyclical unemployment persist in the medium term, there is a risk that the would-be workers start to lose their skills or see them become obsolete. Once this hysteresis – human capital depreciation – sets in, it can leave a lasting mark on the workforce’s capacity and so on the potential size of the economy.

## Low investment

Data from the first half of 2020 suggest that, while the forced drop in private consumption due to shop closures and travel restrictions was in aggregate terms the largest driver of the recession, machinery and equipment investment often dropped significantly more sharply.

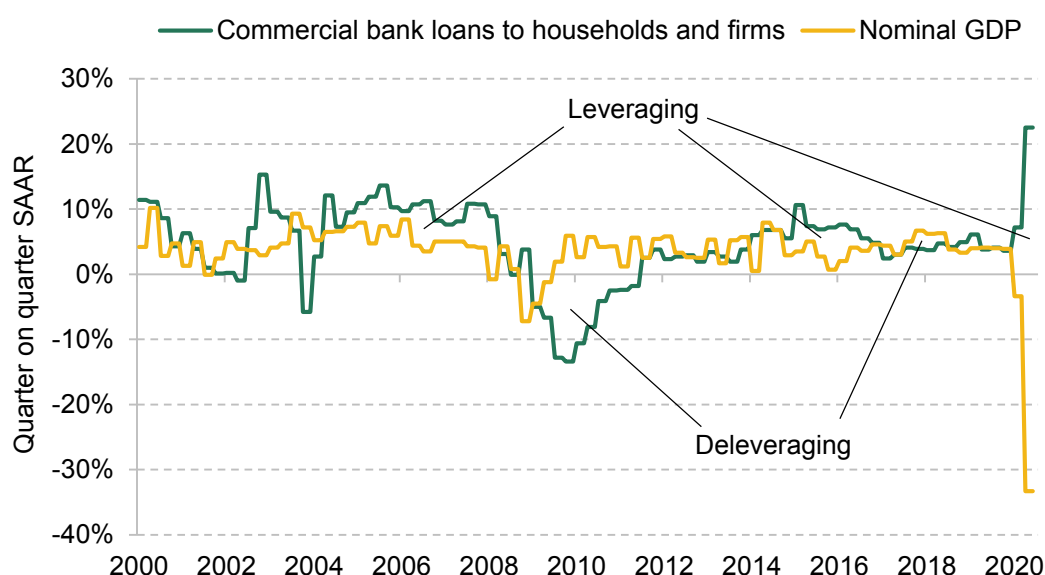
This fall in investment has immediate effects on the economy, since it reduces demand. But it also has longer-term impacts, since investment today creates supply

capacity in the future. Lower investment is likely to leave at least a temporary mark on potential growth, in conjunction with lower labour input.

## Rise in gross private sector debt

Although governments waded in and helped businesses and households with substantial grants during the lockdown, businesses in particular also reverted to credit (some of it underwritten by governments) to fund the expenditure they were unable to roll off to the state. In the US, Figure 1.11 shows that bank loans to households and firms jumped by 23% in Q2 (annualised quarterly growth) while nominal GDP plunged by an annualised 33% quarter on quarter. In the Eurozone, on the same measure, bank loans to households and non-financial corporations jumped by 20% QQ seasonally adjusted at an annualised rate, while GDP might be down by more than 40% QQ in Q2 on an annualised basis (these data are not yet available). Both in the US and in the Eurozone, this jump in credit growth is entirely due to non-financial corporations, while mortgage credit growth was stable and consumer credit growth plunged.

**Figure 1.11. US bank loans to households and firms and nominal GDP growth (% change QQ, seasonally adjusted and annualised rate (SAAR))**



Source: Federal Reserve and Citi Research.

Even when GDP recovers, these moves will leave private sector debt ratios – particularly among firms – significantly higher. And while interest rates are very low, they have not fallen as much as they did after the 2008–09 crisis simply because they were already at or very close to the lower bound. In other words, central banks are less able to help firms and households with their much more indebted balance sheets, which could prove to be a drag on investment and economic growth going forward.

Impaired balance sheets, especially in sectors such as airlines and international tourism which will be affected by social distancing for longer (see Giani et al. (2020)), could lead to rising levels of non-performing loans and even to bankruptcies. Banking systems have become more resilient due to tightened regulation since the last crisis. But even if they survive unharmed, banks may scale back lending if it is perceived as too risky. Already, the euro area bank lending survey reveals tightening credit standards as banks become choosier about who they lend to.

## De-globalisation

As in any global recession, the pandemic crisis has led to a sharp slowdown in global trade volumes. But beyond that, the pandemic experience may incentivise governments and companies to reduce their reliance on the cross-border supply chains which facilitated globalisation. For example, many governments in the developed world are trying to increase domestic output of medical supplies (not least vaccines) after the experience of shortages in personal protective equipment at the start of the crisis.

More broadly, the disruption to international trade and travel could stoke a trend towards re-onshoring, which has become more important in recent years due to developments such as the US–China trade wars and Brexit.

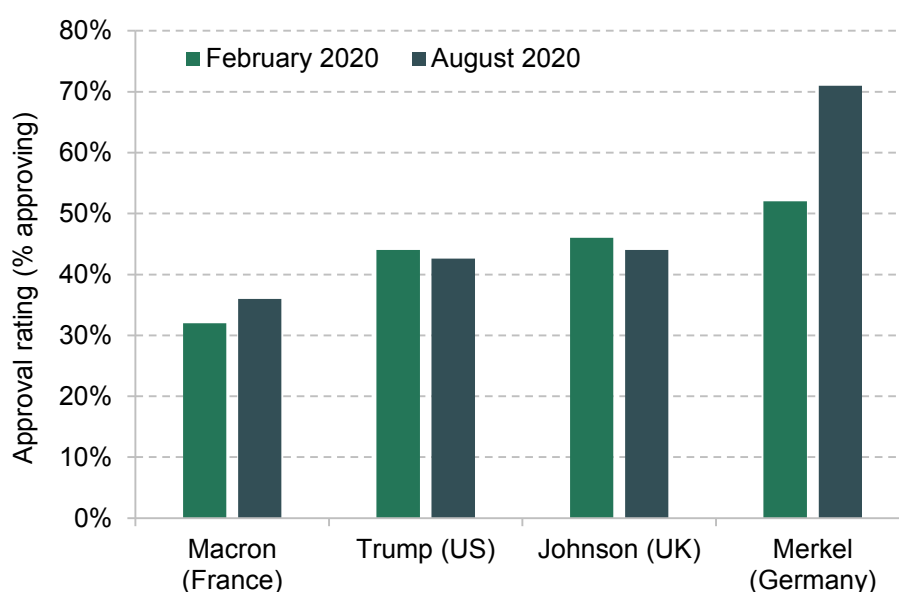
None of these factors necessarily has to stop the recovery in its tracks or will inevitably reduce economies' potential dramatically. Furloughing should soften labour market scarring, while ample fiscal and monetary support should ease the burden on private balance sheets. Once vaccines are widely available, social distancing could fade quickly (though some changes, such as more home working or less reliance on air travel, might be more permanent if they are found to improve productivity). It is even possible that the pandemic could act as a catalyst for more

investment into productivity-enhancing technologies such as digitalisation and robotics. The next 12 months will decide, and politics will play a big role in how these long-term consequences shape up.

## 1.7 Political consequences of the virus<sup>5</sup>

The COVID-19 outbreak, the lockdowns and the economic consequences of both will be a trauma for societies, and could change the social and political order as profoundly as two world wars did during the 20<sup>th</sup> century. The vast majority of citizens understand the reasons for the lockdown and continuing social distancing measures (in fact, in some countries, such as the UK, workers were slow to return to their offices despite government chivvying over the summer). But social distancing rules and lockdowns were and still are an unprecedented state intervention into the

**Figure 1.12. Approval ratings of selected world leaders**



Source: YouGov (Donald Trump, Boris Johnson), Infratest Dimap (Angela Merkel) and Ifop (Emmanuel Macron).

<sup>5</sup> See Mares et al. (2020).

freedom of circulation and association. Many people feared and still fear for their health far beyond usual levels and the recession is already having a deep impact on people's livelihoods.

The crisis has already had an impact on leaders' popularity (see Figure 1.12), which may soon translate into political change, most imminently at the US presidential election in November if the polls are correct. But current polls should not be overstated anywhere; when the crisis abates, new social and societal priorities will emerge. It is not certain that those who presided over the management of the crisis, even where they were successful, will be entrusted with clearing up its consequences.

Some of the possible political changes resulting from the pandemic include:

- **The return of big government.** The COVID-19 crisis is arguably the first systemic global ecological crisis in modern times with visible and profound economic costs. Democratically elected governments have taken measures that would have been considered far too radical for almost any purpose before this pandemic. Their actions could set a precedent for future emergencies – for example, in the wake of climate change. People may take an even dimmer view on economic flexibility than before and demand more protection instead. The ability of governments to intervene in the economy to protect strategic production (for example, of medicines) could lead to a reversal of state aid rules. Key workers in the healthcare system, in care or in distribution, who are often not well paid, will probably demand and may receive higher compensation. In general, citizens will want more protection and thus receive a 'bigger state'.
- **The positive side of the bank–state nexus.** After the 2008–09 crisis, much was done to untangle the link between the state and banks to break the doom-loop between bank and sovereign debt or the 'too-big-to-fail' problem. In 2020, banks took on the role of liquidity providers to firms during the initial phase of financial market upheaval in February and March, which may lead to a return towards deeper cooperation between the state and its banking system.
- **Centralisation.** In some more federally organised countries and regions, there may also be a rethink of subsidiarity principles, given tensions between the central government and local authorities which led to confusing, badly coordinated and ultimately suboptimal outcomes (although we see little

evidence that centrally organised governments systematically performed better during the first wave of COVID-19 than others).

- **Rethinking of monetary financing.** Central banks have bought up large parts of the government debt issued to support households' and firms' balance sheets. This was necessary to avoid enormous amounts of new government debt crowding out private borrowing, which could have led to an unwanted tightening of financial conditions elsewhere. Traditionally, many central bankers have been wary of such financing of government debt; they fear that, if central banks become the buyer of choice for government debt, their future decisions about the interest rate will come under pressure from governments concerned about the impact of a rate hike on the public finances (see Chapter 5). In the current circumstances, however, government bond purchases preserve the ability of central banks to act upon their mandate and thus support 'monetary dominance', rather than coming at an elevated risk of 'fiscal dominance' (where monetary policy is set with an eye to financing government borrowing cheaply rather than in order to pursue an inflation target).

## 1.8 Economic outlook by region

After a disastrous first half of the year, followed by plenty of evidence of a swift but incomplete recovery, Citi economists currently expect world GDP to shrink by 3.9% in 2020, followed by 5.4% growth in 2021.<sup>6</sup> Despite this apparent V shape, the majority of the 50 economies in Citi's coverage will not complete their recovery (i.e. reach their pre-crisis levels of output) before the second half of 2021,<sup>7</sup> and all would be smaller than either our pre-COVID forecast or a simple extrapolation of pre-COVID trends would imply.

We acknowledge major uncertainty around the base cases we present below. They are based on some key assumptions which may prove too optimistic: these include the avoidance of new severe lockdowns, no new trade disruptions, continued fiscal and monetary support through at least 2021, accommodative financial conditions (in particular, a continuation of the current very low interest rates) and a vaccine

<sup>6</sup> For more on Citi's global forecasts, please consult Mann et al. (2020b).

<sup>7</sup> See figure 5 in Mann et al. (2020a).

which is widely available by the middle of 2021. Clearly, a substantial new wave of infections – for example, in Europe during the winter – could once again lead to economically damaging lockdowns beyond what is assumed here. Conversely, an early adoption of one or more of the vaccines could return activity to normal faster than we currently anticipate.

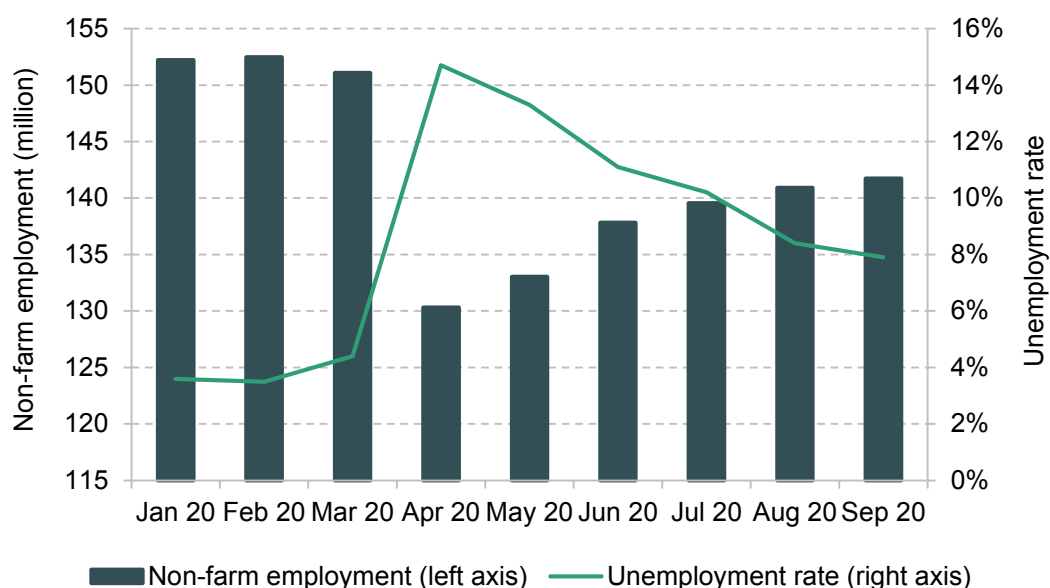
In this section, we present summaries of our latest thinking on the outlook for key global economies.

## United States

As we noted above, the US has suffered far more COVID-19 infections and deaths than the similarly sized Eurozone. However, only a few states had severe and lengthy lockdowns, which allowed economic activity in the country as a whole to continue at higher levels than in Western Europe in the first half of the year. As a result, the US economy shrank by ‘only’ 9% in Q2, compared with 13% in the Euro area and 20% in the UK. And even though the US as a whole did not manage to get the first wave of COVID under control, data so far in the third quarter suggest the economy is enjoying a rebound in output, with 30% growth on an annualised basis (7% QQ). For 2020 as a whole, we currently expect GDP to drop by ‘just’ 3.6%, far less than in most of Western Europe. However, even the US will take until mid 2021 for real GDP to re-attain its 2019 Q4 level.

Consumption has been the strongest contributor to the rebound. Goods spending is running above pre-COVID levels and services spending, while still below, continues to recover. Concerns that rising COVID-19 cases over the summer would lead to a stall in the recovery did not materialise as spending continued to advance. Housing investment has been extraordinarily strong, well above pre-COVID levels, thanks to low interest rates and generous government income support. Business equipment investment has lagged the rebound in consumer demand, but recent data on durable goods orders bode positively.

The US unemployment rate surged to 14.7% in April 2020 and would have been closer to 20% if not for the substantial number of individuals who reported they were not looking for work. However, from May to September, 11.4 million jobs were added back, leading the unemployment rate to drop to 7.9%. Despite the fastest-ever pace of (re-)hiring, elevated unemployment looks set to continue through the end of the year and into 2021.

**Figure 1.13. Non-farm employment and the unemployment rate in the US**

Source: Bureau of Labor Statistics and Citi Research.

As elsewhere, falling airfares and hotel lodging prices make COVID-19 a deflationary shock. While some of these prices are now rising from low levels (and so can see large growth rates), slowing growth in rents will help keep inflation in households' costs, as measured by the core Personal Consumption Expenditures Price Index, below 2% for the remainder of 2020. The decline in oil prices means lower headline inflation as well. Recently, prices for certain categories (for example, food) have been boosted by shortages of supply relative to demand, but for now we see the deflationary shock as predominating.

Fiscal measures directly due to COVID-19 surpass \$2 trillion in total size (the \$2.2 trillion headline CARES Act 'price tag' includes lending authority and other indirect measures). Much of the support that went directly to households has run its course; \$600 a week in additional unemployment benefits ran through July, while the bulk of stimulus cheques for \$1,200 per person have been distributed. The government also made available \$670 billion in forgivable small business loans. At the time of writing, Congress looked too divided to pass new support measures before the election. The end of extra unemployment benefits reduces incomes by \$70 billion per month, although this is partially compensated by Federal Emergency Management Agency payments from September. Still, the fiscal tightening creates significant headwinds in the run-up to the election in Q4. These would only be fully

offset if the \$1–1.5 trillion direct income support package we still expect to be agreed before or after the elections (more in the case of a Democratic Congress, less in the case of a Republican one) comes to pass.

At their last meeting in September 2020, Fed officials dramatically revised up their forecasts for 2020 growth, bringing them very close to our own. However, these stronger forecasts do not seem to have translated into an appetite for more hawkish monetary policy; if anything, officials continue to look for ways to add more accommodation and signal a strong commitment to the new goal of targeting 2% inflation on average (and consequently aiming to overshoot 2% following below-target inflation recently). With no overshoot of inflation in Fed forecasts, it is not surprising to see most officials wishing to leave policy rates at zero through 2023. Importantly, even if the recovery continues to proceed faster than policymakers' expectations, Fed officials seem to have committed to dovish policy for the foreseeable future.

### China

China is the only major economy that, at least on official data, had already returned to pre-crisis levels of activity by the second quarter of 2020. Citi economists expect GDP growth to climb gradually from 3.2% YY in Q2 to 5.5% YY in Q3 and 6.3% YY in Q4. Despite the recovery, 2020 is likely to end up as the worst year for China's economy in the modern era. However, we forecast that it will be followed by solid 8.2% YY GDP growth in 2021.

The economic recovery may continue at an uneven pace. Investment growth should quicken further given the strong infrastructure push and a continuation of property investment resilience. We are optimistic on the trade outlook if the world is not going back to the broad-based lockdowns seen in March–April. On the other hand, a slowdown in household income growth and precautionary saving in the face of an uncertain future may still hold back consumer spending. Capital spending by the corporate sector is unlikely to pick up strongly from its deep contraction in the first half of 2020, given the cloudy business outlook and the continuing risks surrounding US–China tensions.

A key driver of the growth acceleration in the second half of 2020 is likely to be the delayed implementation of fiscal initiatives already announced in the first half of the year. However, the 'soft' nature of the fiscal stimulus package due to come on

line (subsidies and tax relief to small and medium-sized businesses and micro-firms so that they can stay afloat without massive layoffs) might mean relatively low multipliers, based on the 2018–19 tax cut experience.

On monetary policy, we believe both Marginal Lending Facility rate cuts and Required Reserve Ratio cuts are still needed in the second half of the year. As the fiscal policy weighs in to take driving role, we think the policy easing will also become less intensified, and the People's Bank of China will continue to use innovative policies to compress credit spreads.

## Eurozone

The Eurozone hosts several of the economies hit hardest by COVID-19, at least during the early stage of the pandemic. It saw harsh lockdowns even where severe pandemics were avoided. As a result, GDP dropped by 15% between 2019 Q4 and 2020 Q2, more than in the US or Japan, let alone China. The upside was that European economies brought the pandemic under control before the summer and were able to lift restrictions earlier and more comprehensively than the US, the UK and some emerging markets still in the middle of the crisis, experiencing a swifter rebound in activity levels over the summer. By July, industrial production had recovered to –8% YY from a trough of –29% YY in April. Retail sales returned to positive year-on-year growth from June (+2% YY) from a trough of –20% YY in April. Despite evidence of a second wave of infections, Q3 looks set to witness the biggest quarterly increase in output in history, +10% QQ on Citi's current estimates.

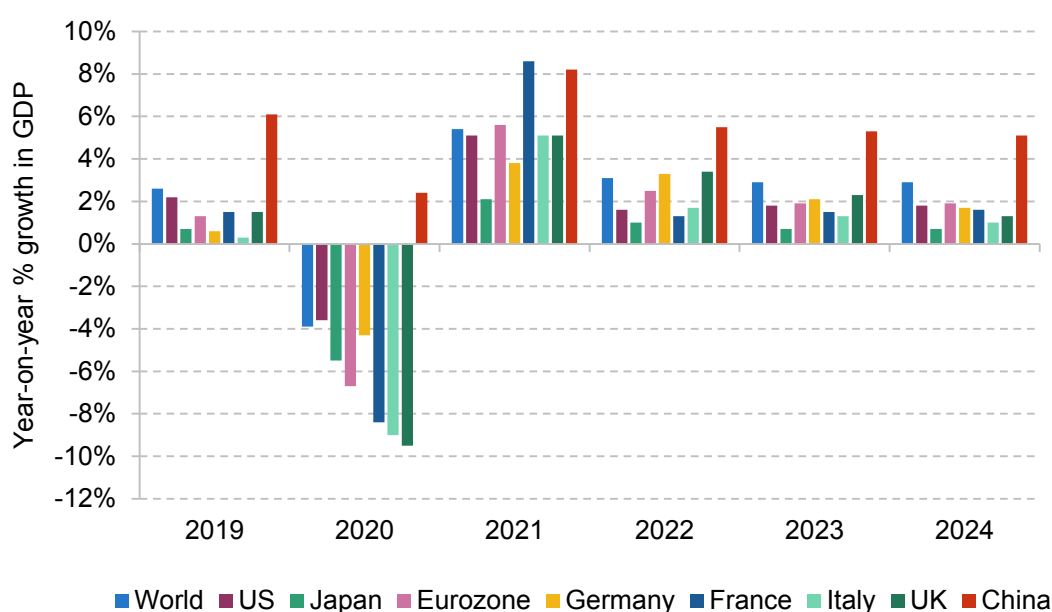
However, we do not expect a full recovery to pre-crisis levels before late 2021, not least due to a wide dispersion of economic outcomes across the currency zone:

- Among the larger European economies, **Germany** has so far experienced the most benign pandemic, requiring the least severe lockdown and social distancing measures. Domestic demand is bolstered by a generous first-wave fiscal package as well as relatively high levels of trust in government. Germany's Achilles heel is its manufacturing backbone, which may experience supply disruptions for a while and, due to its trade exposure, imports problems from markets where the pandemic has bigger effects. Still, Citi expects a full recovery by 2021 Q3.

- **France** had a very severe pandemic and corresponding lockdown (GDP down by 19% in the first half of 2020), but once lockdown measures ended, it benefited from its greater economic self-reliance and the greater weight of private consumption in its economy. If the French authorities avoid new economically painful lockdowns (a big if, given the latest surge in new infections), we expect France's recovery to be steeper and less subject to external risks than Germany's, which in this scenario would make a full recovery possible by the second half of 2021.
- **Italy** had the deadliest outbreak early on and one of the harshest lockdowns, but also brought the virus under control earlier than others and surprised with a slightly less bad economic performance in the first half of 2020 than France (with a 17.7% cumulative drop in GDP). While the manufacturing sector is recovering nicely and consumer demand is recovering, the greater exposure to tourism is likely to delay a full return to normal to 2022. Italy's woes apply to an even greater degree to **Spain**.

Across the Eurozone, governments are moving towards traditional fiscal stimulus packages, announcing large tax cuts and spending increases. The EU Commission has sensibly suspended its fiscal rules and the ECB effectively deployed government bond purchases to contain spreads in borrowing costs between member states, affording all ample fiscal space. National measures will be meaningfully complemented over the coming years by the €672.5 billion EU Recovery and Resilience Facility, which channels money from the wealthiest and least COVID-affected economies to the struggling South and East of the EU and Eurozone in the form of grants and loans to fund the reconstruction after the crisis in 2021–24 (see Section 1.3).

The EU and the Eurozone remain at particular risk of political tensions, since their central institutions are not as well established as those of historical nation states. The precedent set by the recovery fund towards more fiscal solidarity expresses the willingness of all 27 member states to stick together, but tensions could resume once further economic and financial divergence between member states materialises in the coming years. This uncertainty about EU and Eurozone cohesion will continue to impose a cost on European economies and beyond.

**Figure 1.14. Year-on-year % growth in GDP, actual and Citi forecast**

Note: 2019 actuals, Citi forecasts from 2020.

Source: National statistical offices and Citi Research.

## 1.9 Conclusion

The global economic backdrop for the UK has changed dramatically due to the pandemic in the first half of the year, with most economies shrinking by 10–25% cumulatively. The summer months saw partial recoveries in most countries, helped by better control of the virus as well as monetary and fiscal support around the world. If a vaccine or medication ends the pandemic soon, outbreaks are handled well in the meantime, and fiscal and monetary support continues to cushion the hit to households and businesses, a swift completion of the recovery and return to pre-COVID levels of output in mid-to-late 2021 is possible (and effectively our global base case).

However, there are risks to this outlook both in the short term and in the coming years. The recent resurgence of new COVID cases has led governments to tighten social distancing measures in a bid to keep the virus under control and stave off the need for harsher, more widespread lockdowns in the future. Still, these moderate restrictions could hamper the green shoots of economic recovery that we have started to see; a failure to get the virus under control at this stage could have even worse consequences for public health and economic output.

Even if the global economy avoids the worst impacts of the virus over the winter, some effects look set to linger at least for a while and nobody knows for sure how and when the pandemic will end. The longer the recovery takes, the greater the risk of a lasting impact on potential growth via reduced capital accumulation and the depreciation of human capital. This could not just delay recoveries, but hamper economies for years or even decades to come. We expect all economies to remain smaller than either our pre-COVID forecast or a simple extrapolation of pre-COVID trends would imply. A longer recovery also brings higher risks to financial stability via rising debts. There is a significant risk of divergence between the best- and worst-performing economies in this crisis; going into the final quarter of 2020, the UK has one of the worst starting points among major economies.

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## 2. UK economic outlook: the long road to recovery

Benjamin Nabarro (Citi)

### Key findings

- 1 **Following a record 19.8% quarter-on-quarter (QQ) fall in the second quarter of 2020, we expect output to rebound by 17.5% QQ in Q3.** Household consumption in particular has been recovering well, driven by the return of capacity, deferred expenditures and additional policy support.
- 2 But we expect the recovery to slow sharply from here. Virus fears, and weak associated demand, are instead likely to come to the fore. **In our central scenario, 2020 Q4 GDP will remain 6.2% below 2019 Q4 levels, a larger fall than the 5.9% peak-to-trough fall during the financial crisis. Even by the end of 2024, we think GDP will still be only 1.9% above 2019 Q4 (and 4.7% below its 2016–19 trend).**
- 3 The recovery from here hinges on households. Impaired business balance sheets and changes to trade patterns will likely weigh on investment and exports initially. By contrast, households on average saved a record 28.1% of their incomes during Q2 (compared with 6.1% between December 2016 and 2019). **The question now is primarily about household confidence and whether it can drive a pick-up in spending. While possible, we are not optimistic.**

- 4 The COVID-19 shock is unusually concentrated in labour-intensive sectors. **Payroll data to August suggest there has already been a loss of over 700,000 employee jobs, even before the end of the furlough scheme.** While official unemployment figures are confused at present, the fact that the Labour Force Survey suggests 500,000 more people than in March are out of work and want a job is a cause for concern. **We expect the unemployment rate to increase to around 8–8.5% (2.8 million) in the first half of 2021**, feeding back into weaker sentiment.
- 5 **There are clearly enormous uncertainties surrounding all of these forecasts.** Our outlook is conditioned on three judgements. First, we assume no effective protection against the virus is widely available before 2021 Q2; second, we expect lingering health concerns to weigh on demand until this point; and third, we anticipate that the medium-term reconfiguration (due to both COVID and Brexit) implies a larger and more persistent increase in unemployment, as well as an associated loss of capacity.

## 2.1 Introduction

The UK faces a long road to recovery in the wake of the COVID-19 pandemic. The ‘COVID shock’ in the first half of 2020 was one of the largest among the advanced economies. This reflected the length of the lockdown, but also the structure of the UK economy, where a larger share of output is concentrated in sectors that were more exposed (such as consumer services). Over the summer, activity rebounded strongly. Capacity has recovered as the proportion of household consumption subject to COVID restrictions fell from nearly 40% in April to less than 2% at the end of July (Bank of England, 2020b). This has facilitated a sharp recovery in household spending in particular – supported, we think, by previously deferred expenditures and an unprecedented level of front-loaded fiscal support. After falling 19.8% in the second quarter of 2020 (Q2), we expect GDP growth of 17.5% in Q3.

However, we expect the recovery to slow sharply from here. Trends that have supported growth over the summer are likely to fade. Repeated local virus surges seem likely until either an effective vaccine or effective treatment is widely available. Alongside ongoing social distancing, we think associated precautionary behaviour is likely to weigh heavily on demand. These effects are likely to be concentrated in a handful of sectors (including hospitality services and transport) that account for a comparatively large share of UK output and employment. A more urbanised economy also increases the risk of more persistent weakness. We therefore expect output in 2020 Q4 still 6.2% below 2019 Q4 levels – a larger reduction than the peak-to-trough fall during the financial crisis.

We expect these effects to weigh sharply in the second half of the year. Over the summer, incremental improvements in some of the economic data have combined with growing pessimism regarding the medium-term outlook. Hiring and investment intentions have remained commensurately weak. As output continues to lag, we expect this to feed back into depressed investment and, especially, weaker employment. During the initial stages of the crisis, the labour market was in large part insulated by the government's Coronavirus Job Retention Scheme and Self-Employment Income Support Scheme. With support now dialling down, reported redundancies are increasing sharply, with unemployment increasing to over 8% in Q4.

The wider recovery from COVID hinges primarily on households. A collapse in consumption in Q2 due to COVID restrictions, coupled with considerable government support, meant that the household saving rate in 2020 Q2 increased to a record 28.1%. The question now is to what degree this might support consumption in the quarters to come. With unemployment now increasing sharply, we think these effects are likely to prove only limited. Savings so far this year also seem to have been accumulated disproportionately by wealthier households, who are likely to spread any subsequent increase in consumption over many years. Taken together, the implication is that these 'lockdown savings' should provide only limited support to consumption in the coming months.

The COVID-19 shock has not hit all industries equally. Combined with another major structural shock in the form of the end of the Brexit transition period (see Chapter 3), the effect will be to force a reconfiguration of the economy as some sectors take on a smaller share of total output. In the near-to-medium term, this implies a period of persistent weak sentiment, spare capacity and lacklustre growth

as capacity is reallocated (Kozlowski, Veldkamp and Venkateswaran, 2020). We now expect output to recover to 2019 Q4 levels only in 2023 Q2. But even by fiscal year 2024–25, we expect output would still be 4.5% below the pre-COVID trend (as forecast by the Office for Budget Responsibility (OBR) in March 2020).

Ours is not the only plausible path for the UK economy over the coming years. If demand is stronger initially, reconfiguration is avoided and the labour market is resilient, the recovery could be somewhat faster. This optimistic path could see output potentially recovering to pre-COVID levels by 2022 Q2. On the other hand, a severe second national lockdown could see a full recovery pushed back materially – potentially leaving the economy below its pre-crisis size throughout the forecast horizon. Uncertainty is substantial, but we think the risks to our forecasts are broadly balanced.

In this chapter, we consider the near-term outlook in depth. We begin by discussing the downturn and rebound associated with the virus (Section 2.2) and the lingering effects for the second half of the year (Section 2.3). We then move to discuss the outlook for each expenditure component of GDP in Section 2.4, followed by the outlook for the labour market (Section 2.5) and inflation (Section 2.6). Section 2.7 discusses the key questions regarding the UK economic outlook and potential alternative scenarios before Section 2.8 concludes.

## 2.2 COVID-19 in the UK

Economically speaking, the COVID-19 pandemic constitutes the temporary impairment of an essential public good – a stable public health environment. The subsequent economic shock has affected both supply and demand (Haskel, 2020). On the supply side, the public health response has resulted in some sectors being forced to close. On the demand side, consumer and business fears appear to have weighed on demand for some goods and services. Both affect different sectors and geographies to varying degrees, depending on the degree of virus risk.

The ongoing economic recovery depends on the spread of COVID-19, the public health response to it, and the reaction of various economic actors. Our forecasts are conditioned on the assumption that virus fears remain elevated over the coming months amidst ongoing local virus outbreaks and associated restrictions. We then expect virus concerns to dissipate over the first three quarters of 2021 (perhaps with the roll-out of a vaccine or treatment). However, this remains highly uncertain.

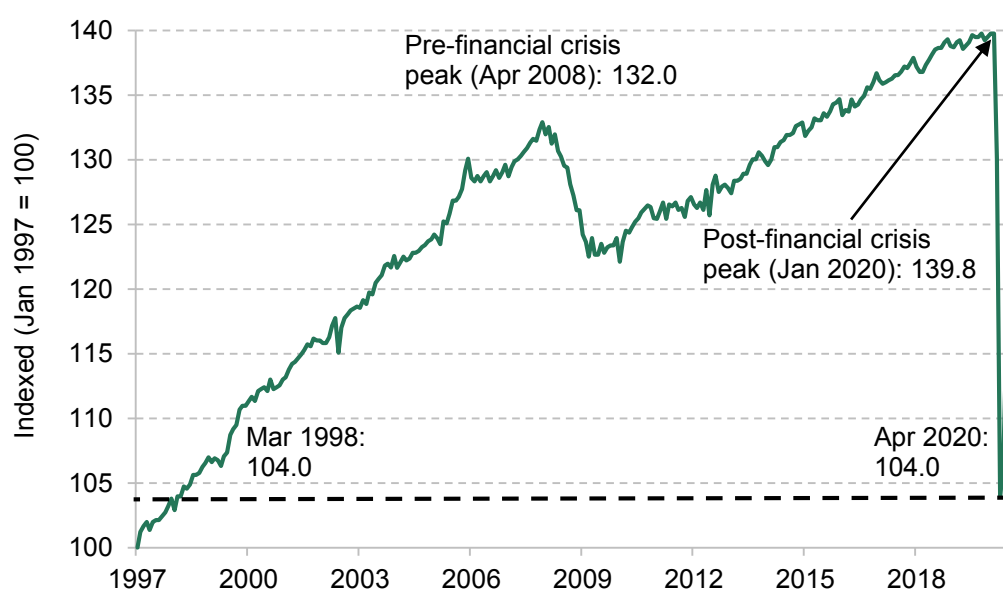
The key point here is even with the economy now broadly reopened, the virus is still likely to have a significant impact on economic activity. Local restrictions aside, repeated local resurgences are likely to mean concern regarding the virus remains elevated. We think this will continue to weigh on demand. Overall, we expect output to remain 6.2% below 2019 Q4 levels in 2020 Q4 (compared with a peak-to-trough fall of 5.9% during the 2008–09 financial crisis).

## The impact of lockdown

The record reduction in activity in 2020 Q2 was primarily driven by the mandated public health restrictions implemented at the end of Q1. After concluding on 5 March that the virus was spreading widely, the government enacted compulsory social distancing requirements on 20 and 23 March. A summary of measures is displayed in Box 2.1. Most compulsory measures were subsequently maintained throughout most of Q2.

These lockdown measures have coincided with loss of nearly two decades of growth in the UK economy in only two months. Monthly real output in April was at a similar level to early 2002. On a per-capita basis, the fall was even more dramatic; Figure 2.1 shows that output per head fell to levels last seen in early 1998.

**Figure 2.1. UK real GDP per capita index (Jan 1997 = 100)**



Source: ONS and Citi Research

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**Box 2.1. Timeline of COVID-19-related restrictions in the UK**

Following the outbreak in Hubei, China over the New Year, lockdown measures in the UK progressed only slowly. Lockdown measures were implemented in the final weeks of March, and were eased in the latter half of June and the start of July (before some measures started to be reintroduced in September).

**UK-wide lockdown measures**

- 31 January – first confirmed cases of COVID-19 in the UK.
- 5 March – England’s Chief Medical Officer, Chris Whitty, tells MPs that the UK has now moved from the ‘containment’ to the ‘delay’ phase of responding to the virus, reflecting widespread domestic transmission.
- 12 March – government asks anyone displaying COVID-19 related symptoms to self-isolate for seven days.
- 16 March – Prime Minister Boris Johnson advises all in the UK against non-essential travel and contact with others, including avoiding restaurants and theatres.
- 20 March – cafes, pubs, restaurants, nightclubs, theatres, cinemas, gyms and leisure centres are told to close.
- 23 March – public are instructed that they must stay at home, except for certain ‘very limited purposes’ such as shopping for essential items (such as food and medicine) and exercise. Schools, childcare and non-essential retail are all closed (with limited exceptions).

**Easing measures**

- 10 May – UK government updates its coronavirus message from ‘stay home’ to ‘stay alert’.
- 13 May – those who cannot work from home, such as construction workers and those in manufacturing, are encouraged to return to work.
- 1 June – government allows schools to reopen for Reception, Year 1 and Year 6 pupils, though take-up is very low.
- 15 June – non-essential shops are allowed to reopen.
- 4 July – hospitality and other consumer services sectors are allowed to reopen.

The government has reintroduced some national restrictions on 14 September with the so-called ‘Rule of Six’ outlawing any gathering of more than six people other than in some specific circumstances. The government has also increasingly resorted to additional local lockdown measures – these now cover 23% of the population in England, 76% in Wales and 32% in Scotland.

Source: Public Health England; UK government; press reports.

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Output has recovered somewhat since, but as of July it remained 11.8% below the pre-crisis peak (February 2020), at levels last seen in early 2015.

Compared with other major economies, the reduction in output in the UK was relatively large. There are three reasons for this: the duration of the UK's COVID-19 lockdown; the sectoral and geographic composition of its economy; and the way in which the UK accounts for public sector output.

### The UK's lockdown timetable

The UK locked down for a longer time than many other countries. In France, for example, lockdown was imposed on 15 March – eight days before the UK. However, the reopening of non-essential retail and the hospitality sector occurred roughly 28 days before the equivalent changes in the UK. In part, this may reflect a cost of having locked down later. New infection rates in the UK also seem to have been more persistent compared with continental Europe, potentially reflecting additional challenges within the UK's care system (Office for National Statistics, 2020).

### The sectoral and geographic composition of the UK economy

The UK's economic structure has also compounded the impact of lockdown. Some of the sectors that have been most disrupted by the measures (and least able to adjust) make up a larger share of the economy in the UK than in other developed countries. Hospitality and leisure services, for example, make up roughly 13% of UK output compared with 10% in the Euro Area or 11% in the US. As Figure 2.2 shows, the sectors that make up a larger share of UK output (relative to the US) tend to have seen larger reductions in activity in Q2.

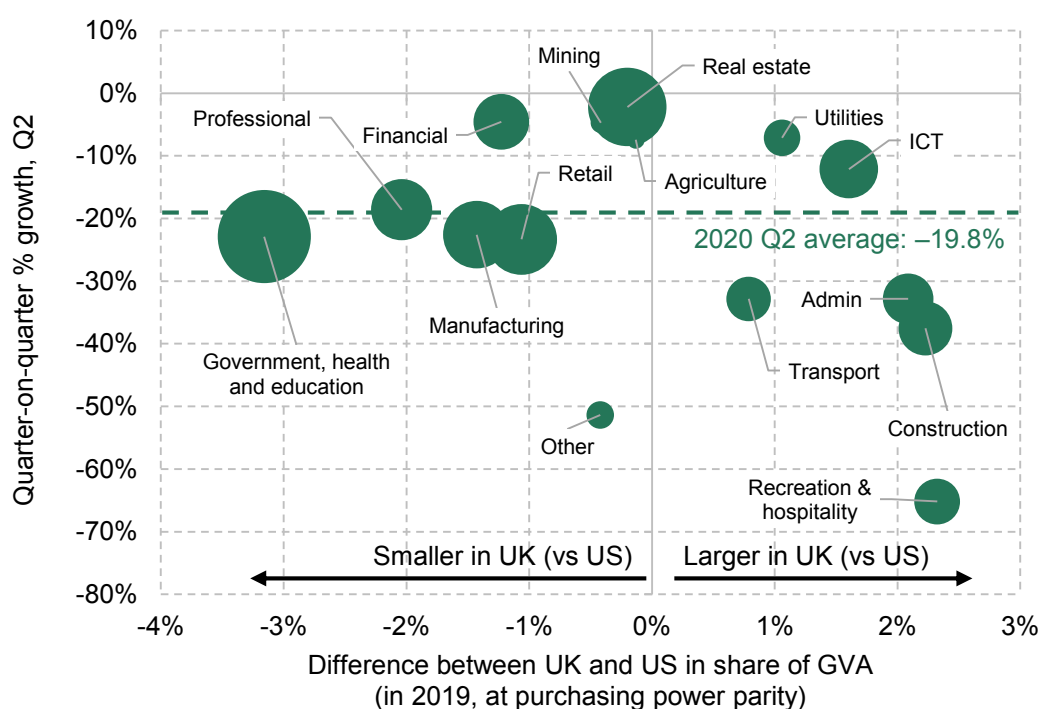
The geographic structure of the UK economy has an important role to play here too. The UK is a relatively urbanised economy (see Chapter 7). Over a quarter of the UK population live in cities with populations greater than 1 million – compared with 9.6% in Germany and 22.6% in France. Urban centres also account for a relatively high share of UK GDP.<sup>1</sup> We think lockdown measures have proven more disruptive and costlier here, especially in cities with a particularly large population, high population density, high service intensity and widespread use of public

<sup>1</sup> 60.8% of UK GDP is produced in cities, compared with 51.7% in France and 55.3% in Germany.

transport. These characteristics tend to denote some of the UK's largest and most productive centres. As Figure 2.3 shows, Google mobility data for urban centres such as London and Manchester fell further and recovered more slowly than in smaller towns.

Economic links between sectors – with businesses acting as suppliers to and customers of businesses in other sectors – have meant larger downturns in both of these areas have likely had knock-on effects for other areas (Lenoël and Young, 2020). We suspect these effects have been particularly extensive in the UK's case. The recreational and hospitality sectors are good examples of 'downstream sectors'. While a relatively large share of their output is determined by final demand (i.e. sales to consumers), they are intensive users of intermediate inputs purchased from businesses in other sectors. The larger scale of these sectors in the UK economy has

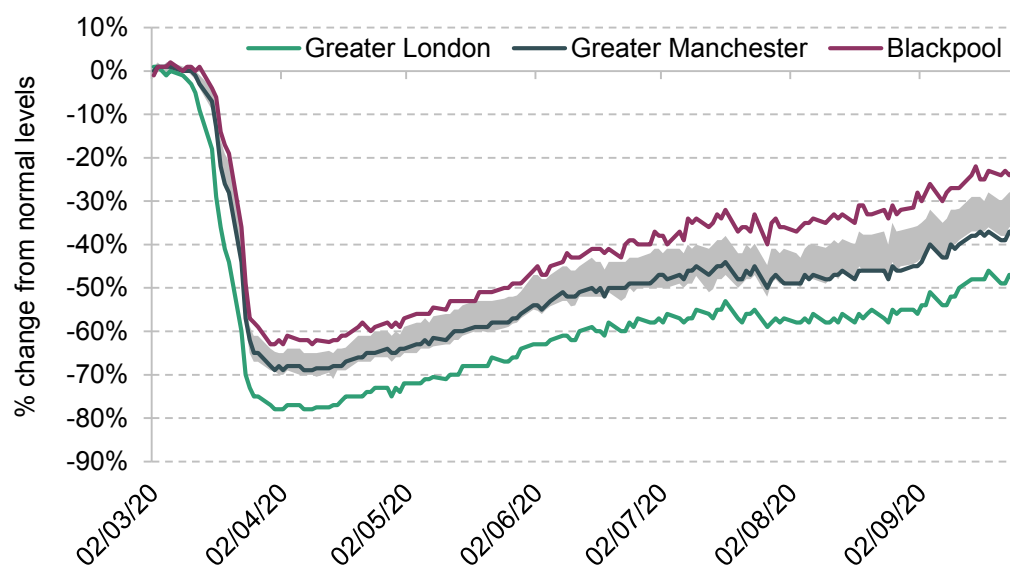
**Figure 2.2. Share of gross value added (versus the US) and change in output in Q2**



Note: Difference in share of 2019 gross value added (GVA) measured by subtracting the share of output in a given sector in the US from the equivalent share in the UK. The right-hand side of the graph therefore denotes a comparatively large sector. The size of the bubble reflects the share of output of each sector in total UK GDP.

Source: ONS, Bureau of Economic Analysis and Citi Research.

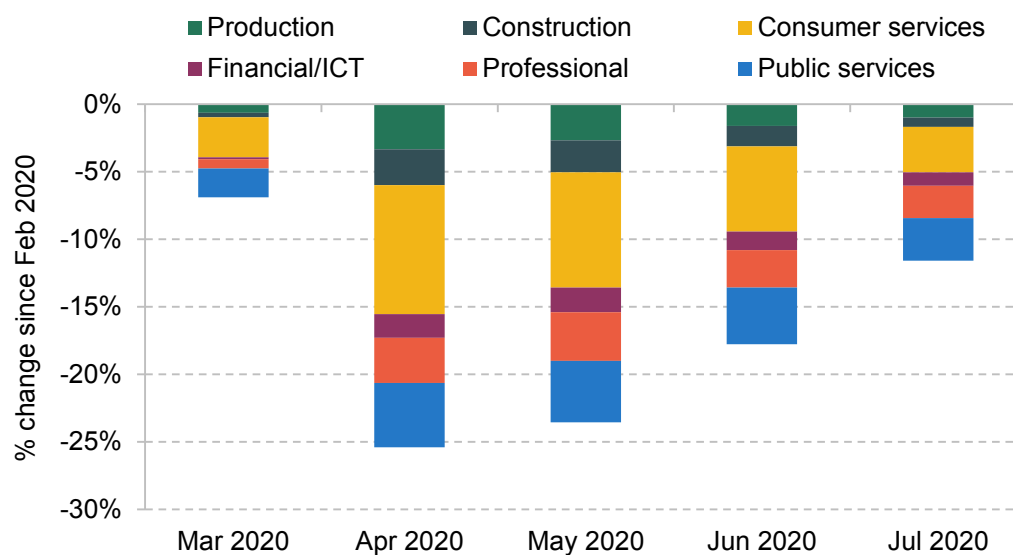
Figure 2.3. Google mobility data across UK local authorities



Note: Google mobility data across 150 UK county and metropolitan administrative areas. Interquartile range is shown in grey.

Source: Google Mobility and Citi Research.

Figure 2.4. Cumulative changes in output (% change since February 2020)



Note: Each sector weighted by GVA share.

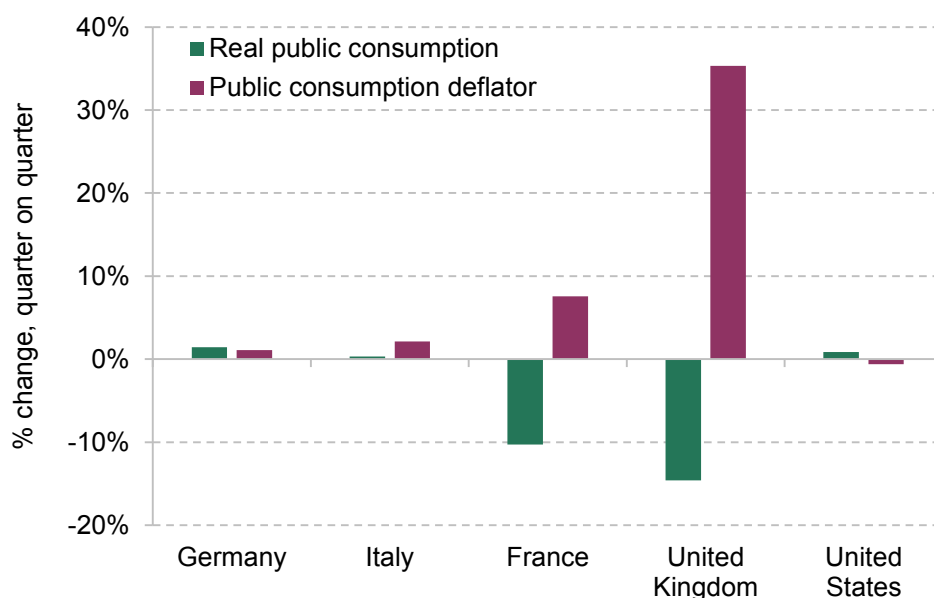
Source: ONS and Citi Research.

therefore not just meant weaker output within these sectors, but also more disruption elsewhere. We think these effects have been especially evident in business services. As Figure 2.4 shows, financial and professional services output actually fell in May despite the rest of the economy recovering as the direct impact of lockdown began to dissipate.<sup>2</sup>

### Accounting for non-market output

Lastly, the way the UK accounts for non-market output may have also compounded the fall in headline GDP in Q2. Government's contribution to GDP is based on the real public services that it purchases and provides. But in most cases, these do not have a market price attached to them. Instead, different countries take different approaches to measuring the value of real public services. Some countries, such as Germany, Italy and the US, divide the relevant components of public spending by

**Figure 2.5. Growth in public consumption and public consumption prices, 2020 Q2**



Source: OECD and Citi Research.

<sup>2</sup> While consumer services grew by 9.0% month on month (MM) in May, financial services actually fell by 0.3% MM and professional services fell by 2.7%.

changes in input prices. As public spending rose and input prices fell during the lockdown, this measure of the ‘output’ of government spending was flattered. Other countries, such as France and the UK, base their measure of real consumption on a series of direct indicators for public services activity – such as the number of children in school or the number of NHS operations. Since many of these activities were disrupted during the lockdown, Figure 2.5 shows that measured UK government consumption actually fell by 14.6% in Q2 (deducting 2.8% from output overall). Since government spending on public services jumped at the same time, Q2 also saw a dramatic increase in the output deflator (a measure of the gap between cash spending and actual output).

### Lockdown easing and the initial recovery

On 10 May, the UK government changed its core virus guidance from ‘stay home’ to ‘stay alert’. The subsequent, gradual, easing of lockdown restrictions (see Box 2.1) has generated a strong rebound in activity in the summer months. GDP grew by an estimated 8.7% and 6.6% month-on-month (MM) in June and July respectively. We expect further improvement in August.

The primary driver of the recent uptick has been private consumption. Between 29 May and 10 July, the share of consumption subject to COVID-19 restrictions fell from 34.7% to just 1.4% (based on pre-pandemic purchasing patterns) (Bank of England, 2020b). As household demand recovered, growth in associated sectors subsequently ticked up strongly in June and July as a result. Figure 2.4 shows that the wholesale, retail and motor sectors were behind much of the rebound in June – adding 2.8 percentage points (ppt) to month-on-month growth as conventional retail reopened from 15 June and car sales rebounded. In July, growth among other consumer services (transport, hospitality, culture and recreation) contributed 5.3ppt to month-on-month growth as consumer services reopened from 4 July.

These data have recovered further in the latter part of the summer. Barclaycard, Visa and Fable data all point to positive year-on-year growth in consumer spending in August (see Table 2.1) – if only marginally in the case of Barclaycard. This came alongside further improvement in mobility indices as well as business surveys. The Purchasing Managers’ Index (PMI) for August, for example, recovered strongly to 58.8 for services and 55.2 for manufacturing (with numbers above 50 reflecting conditions improving month on month). These eased somewhat in September to 56.1 and 54.1, but remain well in expansionary territory. They measure business

Table 2.1. Monthly indicators of economic activity in 2020

	Feb	Mar	Apr	May	Jun	Jul	Aug	1–14 Sep	Latest
GDP (% 3M/3M)	0.1	–2.1	–10.7	–18.7	–20.4	–7.6	-		-
GDP (% 3M YY)	0.8	–1.8	–10.3	–18.3	–21.7	–17.3	-		-
Bank of England agents (SD)	–1.4	–1.8	–22.5	–22.8	–22.8	–22.8	–21.8		-
PMI (SD)	–0.2	–7.9	–18.0	–10.7	–2.6	1.6	2.6		1.1
NCI (SD)	–4.4	–5.7	–8.0	–10.7	–12.6	–12.4	–10.5		–8.0
EC economic sentiment (SD)	–1.4	–2.0	–6.7	–6.8	–6.3	–4.6	–4.7		–3.4
Lloyds Business Barometer (SD)	–0.1	–0.4	–4.5	–4.5	–3.8	–3.3	–3.3		–3.0
GfK consumer confidence (% bal.)	–7	–9	–34	–34	–30	–27	–27		-
Barclaycard spending (%YY)	2.2	–6.0	–36.5	–26.7	–14.5	–2.6	0.2		-
Visa consumer spending (%YY)	0.6	–12.0	–27.8	–19.9	–6.6	2.2	4.7		-
Fable consumer spending (%YY)	–1.6	–9.6	–26.1	–17.8	–17.0	–22.8	7.1	4.7	0.6
Experian retail footfall (%YY)	–6.4	–44.9	–86.0	–82.3	–66.7	–48.9	–38.3	–38.5	–39.6
OpenTable bookings (%YY)	–57	–57	–100	–99	–99	–56	34	–14	–5
Energy Performance Certificates, new dwellings (%YY)	0.0	–13.5	–74.5	–64.1	–32.1	–5.6	4.1	–0.8	-
Weekly shipping (no. of visits)	363	363	290	305	363	379	336	335	317
Adzuna vacancies (2019 = 100)	92.9	81.6	46.4	36.8	40.7	43.7	53.6	53.5	-
Citi – digital mobility (SD)	-	–1.2	–3.3	–3.1	–2.7	–2.2	–1.8	–1.3	–1.3
Google mobility – workplaces (%baseline)	–7	–25	–69	–62	–51	–47	–48	–41	–37
DfT – motor vehicles (%baseline)	-	–20	–62	–46	–28	–16	–10	–7	–7
DfT – national rail (%baseline)	-	–38	–95	–94	–87	–76	–65	–57	–63
TfL – London tube (%baseline)	-	–49	–95	–93	–87	–78	–69	–65	–65

Note: Series presented in standard deviations (SD) are standardised by subtracting the mean from a four-year period to December 2019 and dividing by the standard deviation from that same period. This gives a sense of how unusual these changes are relative to recent history (for normally distributed data, 99.7% of data fall within  $\pm 3$  SDs). The latest data are for the final two weeks in September. The Citi digital mobility indicator is a composite of a range taken from Moovit, Citymapper and several others. The Fable consumer spending data are taken from releases using a digitiser, and so may not be exact.

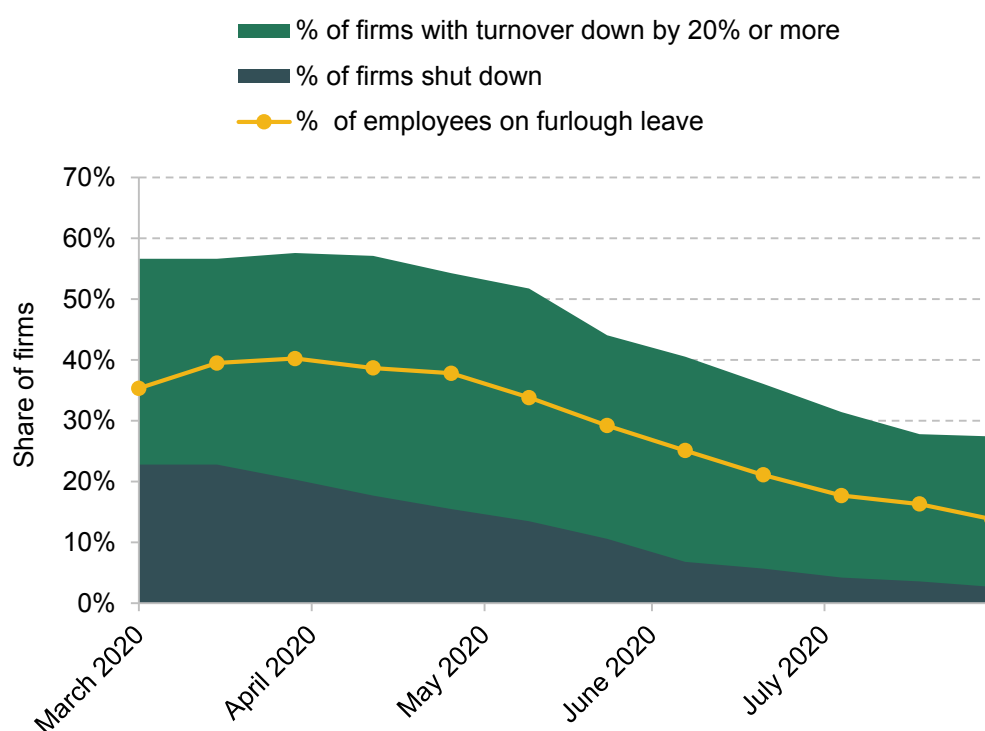
Source: ONS, Bank of England, IHS Markit, Now-Casting Economics, European Commission, Lloyds Bank, GfK, Visa, Barclaycard, Fable, Experian, Opentable, MHCLG, Adzuna, Google, DfT and Citi Research.

leaders' reports of business activity. Both releases noted a substantial boost as a result of economic reopening, with revenues recovering accordingly.

We expect continued (if more moderate) growth in September. During Q2, the reduction in business services lagged consumer equivalents. The recovery here may also therefore lag the rest of the economy; indeed, the PMI data point to relatively strong growth in business services in September, even as growth among consumer services has eased somewhat. Some wider social restrictions, including the closure of schools, were also relaxed during this period, with more returning to work in early September as a result. Mobility data seemed to tick up further in the first two weeks of the month.

As Figure 2.6 shows, the sharp recovery has seen the number of firms temporarily closed fall from 23% at the height of lockdown to just 2.7% in the first week of

**Figure 2.6. Share of private firms closed or suffering reduced revenue and share of employees furloughed**



Note: Responses based on a sample of roughly 6,000 private UK businesses. Dates used represent the mid-point of the survey. Latest data collected 24 August to 6 September.

Source: ONS Business Impact of COVID-19 Survey (BICS) and Citi Research.

September. Productivity will likely continue to be impaired by ongoing social distancing requirements, such as the Rule of Six and mandatory table service.<sup>3</sup> However, we think pre-pandemic capacity is now likely back around 95% of 2019 Q4 levels. Notably here we include not just those firms that are open, but also those firms that are shut but could open if demand conditions were sufficiently strong.

Despite the rebound, actual output still appears well below pre-COVID levels. GDP in July remained 11.8% below that in February. UK mobility data also remain weak compared with international equivalents (see Chapter 1) and pre-COVID levels. Figure 2.6 shows that 27% of firms continue to report turnover below 80% of normal levels; while this has fallen since July (when 36% of firms reported low turnover), it has largely plateaued since then. And, of course, these are only averages; the share of firms whose turnover has fallen significantly is much higher in sectors such as culture (60%), transport (26%) and hospitality (42%).

We think this reflects the lingering effects of virus fear on demand. As we discuss below, these effects are likely to persist until either a vaccine or effective treatment is found. Even before the recent tightening of national social distancing rules, business optimism for the next 12 months had fallen back in August even as the economic recovery has gathered steam – reflecting expectations of a slower, more drawn-out recovery. This has been associated with continued weakness in both employment and investment intentions.<sup>4</sup> As COVID-19 case numbers have increased further over the start of the autumn, expectations here have likely deteriorated further. For many firms (especially in some of these underperforming sectors), we think recent developments have likely reaffirmed previous suspicions that conditions in late summer are likely to prove ‘as good as it gets’ until 2021.

<sup>3</sup> In the most recent round of the ONS Business Impact of COVID-19 Survey (24 August to 6 September), 9.6% of firms reported substantial increases in operating costs as a result of COVID-19.

<sup>4</sup> Citi’s summary indicator of employment intentions (comprised of measures from the CBI, BCC, Bank of England and European Commission) suggests employment intentions for the coming 12 months remain –6.2 standard deviations below recent averages. Bank of England investment intentions fell further in August; these are now at their lowest level on record.

## 2.3 COVID-19 and the outlook for the second half of 2020

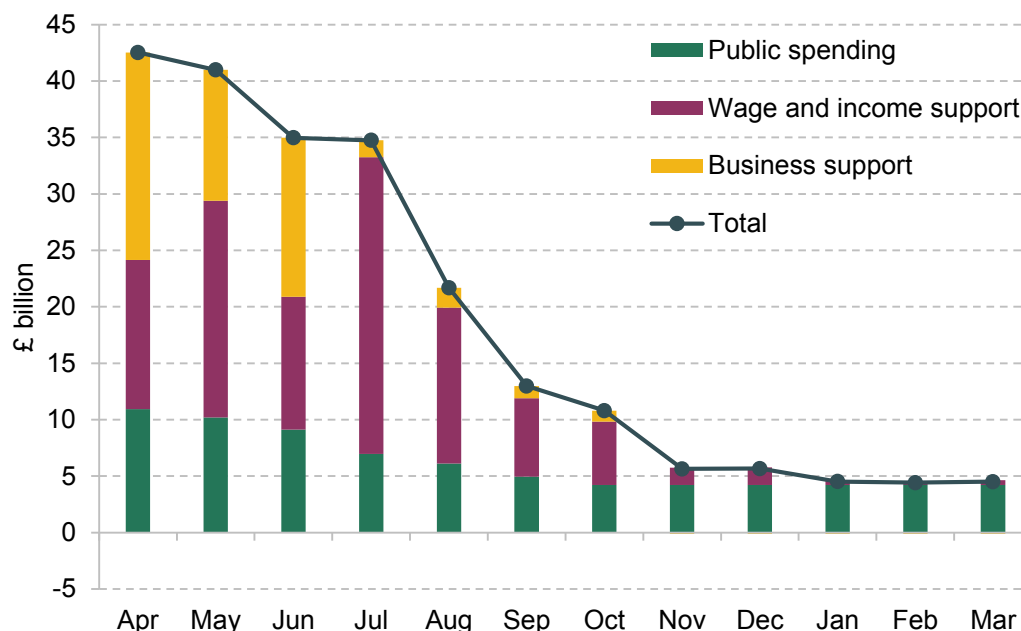
We expect output to grow by 17.5% quarter on quarter (QQ) in Q3 and 2.0% QQ in Q4. This, however, will still leave output in Q4 roughly 6% below where it was a year earlier.

The scale of the reduction in Q2 and the recovery in Q3 both primarily reflect changes in capacity associated with lockdown. The sharp rebound in Q3 has also been facilitated by temporary seasonal effects and front-loaded fiscal support. These effects are now likely to fade. Instead, we expect lingering (and potentially growing) virus fears to weigh on activity for some time to come, implying a sharp slowdown in the recovery in Q4 and weaker output into 2021.

### Temporary factors boosting the Q3 recovery

Fundamentally, strong recent growth has primarily been supported by an exceptional level of policy support in recent months. Between March and September, total discretionary stimulus implemented in response to COVID has totalled £188 billion (see Figure 2.7). Much of this support has been heavily front-loaded – particularly with respect to household income support. This has been complemented by additional support in the form of bans on evictions, mortgage holidays and roughly £70 billion in government-backed lending to private businesses. The impact, especially for households, has been to insulate incomes from the wider economic consequences of the virus. This has allowed households' own assessment of their financial situation to climb to record highs, even as GfK data report that their assessment of the general economic situation has plummeted. However, on current plans, much of this support will be scaled back over the autumn and winter. A much-less-generous Job Support Scheme will replace the generous furlough scheme at the end of October. Many of the substantial, but temporary, measures such as boosts to benefits, tax deferrals and tax breaks are also due to expire (see Chapter 8).

**Figure 2.7. Discretionary fiscal stimulus implemented so far since March 2020, spending by month (£ billion)**



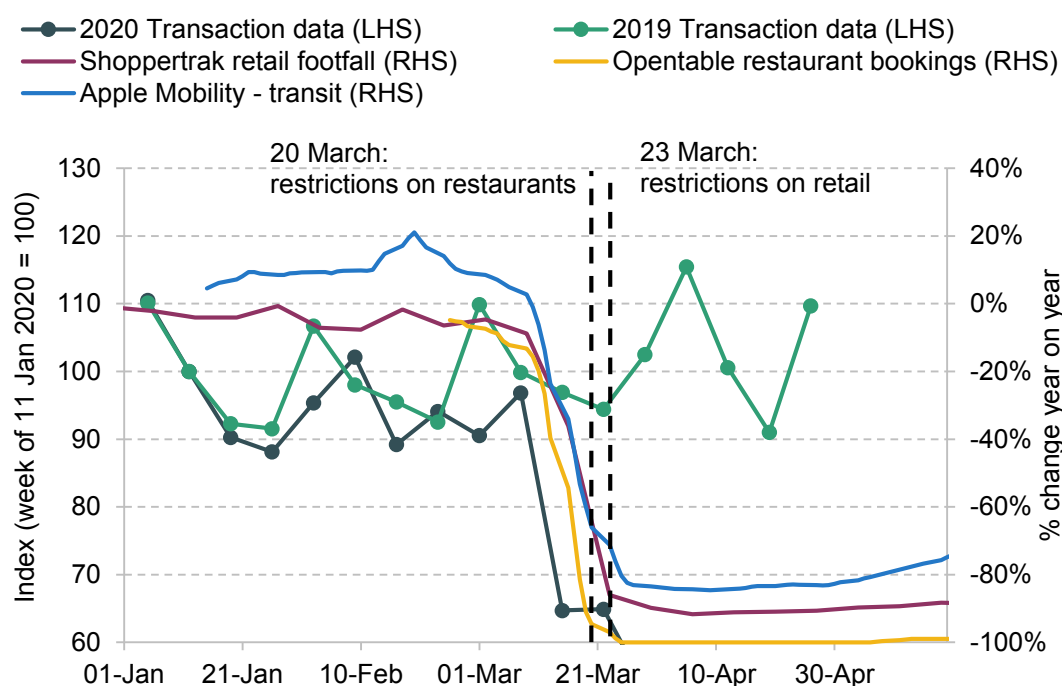
Note: Figures based on OBR monthly spending profile, alongside some Citi estimates. Public spending refers to additional departmental expenditure approved in response to Coronavirus. Wage and income support includes the Coronavirus Job Retention Scheme, the Job Support Scheme, the Kickstart Scheme, the Self-Employment Income Support Scheme, additional benefit support and self-assessed income tax deferrals. Business support includes the reduction in business rates and associated grant schemes, as well as the Eat Out to Help Out scheme and VAT deferrals.

Source: ONS, OBR, Saunders (2020) and Citi Research.

## Weaknesses in consumption over the coming months

When seen in this light, we think current levels of consumption appear weak, rather than strong. As supports fade from Q3, we expect the outlook to weaken materially. The key here is that virus fears are instead likely to persist, with a substantial, additional, impact on economic behaviour.

These effects have been shown to be significant in other jurisdictions. For example, Goolsbee and Syverson (2020) exploit differences in local measures in the US and find only a modest impact associated with formal lockdown measures. Chetty et al. (2020) have come to similar conclusions and we think these effects have already

**Figure 2.8. Indicators of UK household spending and mobility**

Note: 2019 and 2020 transaction data taken from Hacıoglu, Känzig and Surico (2020). The retail footfall series is compiled by Experian.

Source: Hacıoglu, Känzig and Surico (2020), ShopperTrak, OpenTable, Apple mobility and Citi Research.

proved significant in the UK in the weeks leading up to lockdown.<sup>5</sup> Figure 2.8 shows that reductions in consumer spending seem to have largely preceded rather than coincided with the mandatory imposition of business closures. Household expenditure fell by almost 20% in the second week of March – before official advice to avoid restaurants and non-essential travel was issued, but as surveyed fear increased<sup>6</sup> (Hacıoglu, Känzig and Surico, 2020). High-frequency data in other jurisdictions have shown a similar pattern, as have the mobility data (Baker et al., 2020; Carvalho et al., 2020).

<sup>5</sup> These conclusions have been corroborated by studies in a range of other jurisdictions, including the Scandinavian economies (Andersen et al., 2020) as well as other studies of the United States (Brzezinski, Kecht and Van Dijke, 2020).

<sup>6</sup> Levels of virus fear (surveyed by YouGov) increased sharply in March from 24% saying they were very or somewhat scared of catching the virus on 1 March to 48% on 20 March (<https://yougov.co.uk/topics/international/articles-reports/2020/03/17/fear-catching-covid-19>).

Surveyed fear of the virus remains high in the UK. Data from YouGov on 29 September suggest 52% remain very or somewhat concerned about catching the virus.<sup>7</sup> Levels of concern have been increasing again in recent weeks alongside the rise in case numbers.

These effects, we think, are likely to dominate the outlook for the coming months. The easing of restrictions is likely to be just a necessary, rather than sufficient, condition for economic recovery. Instead, with the virus seemingly impossible to fully contain solely through public health measures, the associated risk is likely to linger until an effective vaccine or treatment is widely available. Low levels of government trust and difficulties with the roll-out of the ‘test and trace’ regime could compound the impact by reducing trust in the government’s ability to handle the pandemic. We expect these precautionary effects to weigh on demand over the coming months.<sup>8</sup>

The economic impacts of rising concern over the virus are augmented by the impacts of the policy response. Increasingly strong signals from government that consumers should adapt their behaviour to reduce virus transmission will – intentionally – have an impact on economic activity, even without mandatory lockdown measures. For example, while relatively little economic production takes place in the pub between 10p.m. and midnight, the intention of the 10p.m. curfew is to signal that consumers should think twice about their need to go to the pub at all. Alongside tightening mandatory restrictions around the country, these concerns are already having an impact on mobility and social consumption, with OpenTable bookings, for example, easing substantially since mid September. These behavioural effects seem likely to persist until there is a convincing narrative that fundamental virus risks have abated.

There are no easy answers here: while there are clear costs to the government signalling that consumers should reconsider their plans for social and other forms of consumption, this is likely to be a sensible response to the risks of rising virus transmission. Certainly a more sweeping national lockdown (if the virus spirals out

<sup>7</sup> <https://yougov.co.uk/topics/international/articles-reports/2020/03/17/fear-catching-covid-19>.

<sup>8</sup> Others have drawn similar conclusions including Tenreyro (2020) and Lenoël, Macqueen and Young (2020).

of control once more) would be significantly worse for the economy than the measures that have been taken so far.

## How might virus fears impact the economy from here?

These effects are primarily reflected in weak demand, and specifically household consumption. Here there are three points worth highlighting.

- First, these effects are likely to be highly asymmetric across sectors. While consumption in some areas (such as online shopping) will be unimpaired, others will be more severely affected. Usually, such a shift would have only limited implications for the overall size of the economy. But this case may be different. Consumers believe that the current changes are largely temporary.<sup>9</sup> Since the goods and services that remain available are generally relatively poor substitutes for those that do not, households may choose to spend less today and save in anticipation of a return to normal later on (Guerrieri et al., 2020). Since many of the most adversely affected sectors are heavy consumers of inputs from other industries, these effects are also likely to permeate across the economy.
- Second, while these effects primarily affect demand, some losses in supply are likely to follow. Data from the Bank of England's Decision Maker Panel survey suggest that both demand and supply effects are concentrated in the same sectors. Compulsory restrictions aside, firms are likely to reduce capacity in order to improve social distancing in the face of virus-conscious consumers.
- Third, as we discuss in the sections below, virus-related concerns are not just likely to affect behaviour via individual health concerns, but also by the associated risks to the economy. First, higher economic uncertainty alone is likely to depress both consumption and investment – this is typically associated with both higher household and corporate saving rates.<sup>10</sup> Second, to the degree this contributes to expectations of weaker demand and/or lockdown, this is also

<sup>9</sup> While the proportion of households expecting it to take longer than 12 months for life to return to normal has risen (41% between 16 and 20 September, compared with 11% between 27 March and 6 April), the proportion expecting things to have permanently changed remains relatively small at just 7%, according to data from the ONS Opinions and Lifestyle Survey (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/datasets/coronavirusandthesocialimpactsongreatbritaindata/current>).

<sup>10</sup> A 1 percentage point increase in household and corporate savings is usually associated with a 0.5ppt reduction in output (Bank of England, 2020b). Most measures of uncertainty have increased significantly in recent months (Altig et al., 2020), which may yet drive savings up on a more persistent basis.

likely to drive more conventional precautionary saving. These effects have likely grown significantly following the tapering of government support in September.

The progression of the virus clearly has a key role to play here in the severity and persistence of these effects. Our current forecasts are conditioned on the assumption of continued local outbreaks and associated restrictions but no further sweeping national lockdown. However, if the outbreak proves more severe, the additional effect of not only fear but also widespread formal restrictions would constitute downside risks to our forecasts. On the other hand, the more rapid development and roll-out of an effective treatment could see the economy recover more quickly and completely than we predict.

## 2.4 The outlook for the different components of GDP

Given the risks to the recovery from virus fears, lockdown rules and the tapering of government support, we expect a material margin of spare capacity to persist well into the future. We do not expect the economy to make a full recovery to its pre-pandemic size before 2023 Q2.

The sharp slowdown in the recovery in Q4 primarily reflects a slowdown in private consumption. Having grown by 26.2% in Q3, we expect this to all but stagnate in Q4 as transitory supports fade and virus fears tick up (see Table 2.2). Business investment, we think, is likely to remain relatively weak as demand remains subdued and uncertainty associated with both the medium-term economic outlook and Brexit plays out. Residential investment has the potential to prove something of a bright spot in the near term with a rush to completions before current policy support is wound down from April 2021. Trade, we think, will receive some boost in Q4 in the run-up to the December 2020 Brexit transition deadline; however, we think the outlook here is likely to remain relatively weak thereafter (see Chapter 3).

Table 2.2. Growth forecasts for UK GDP and its components

	2019	2020	2021	2022	2023	2024
Real GDP	1.3	−9.4	4.6	3.6	2.4	1.2
Final domestic demand	2.0	−12.0	7.4	2.6	2.4	1.2
Private consumption	0.9	−10.6	5.5	3.3	2.6	1.1
Public consumption	4.1	−5.0	10.6	−1.6	0.1	0.8
Fixed investment	1.3	−13.7	7.9	6.7	4.4	2.3
<i>Business investment</i>	1.1	−16.5	4.1	8.4	5.9	2.6
<i>Construction of private dwellings</i>	0.1	−18.6	9.0	0.8	2.6	1.6
Stocks (contribution to YY GDP growth)	0.1	−0.5	0.2	0.1	0.0	0.0
Exports of goods and services	2.8	−7.4	3.0	3.4	2.0	1.4
Imports of goods and services	3.3	−16.4	8.2	1.4	2.2	1.3
Net exports (contribution to YY GDP growth)	−0.2	3.1	−1.5	0.6	0.0	0.0

Note: Actual data for 2019; Citi forecasts for 2020 through 2024.

Source: ONS and Citi Research.

## Private consumption

Private consumption has a particularly important role to play in the recovery from COVID-19. Having fallen by 23.7% in Q2, we expect consumption to have grown by 26–27% in Q3, with consumption 6–7% short of 2019 Q4 levels. However, we expect the recovery to stall in Q4.

This sharp rebound in Q3 has been highly asymmetric. Consumption here can be broadly broken down into four categories (see Bank of England (2020a)):

- **Staples:** around 51% of all UK household consumption. This is generally invariant to all but sharp increases in the number of credit-constrained households. However, this has benefited from some additional demand in recent months as households have adjusted to lockdown.
- **Work-related spending:** around 7% of the consumption basket. This includes spending such as rail fares and fuel. Here consumption has fallen sharply and has continued to lag somewhat as commuter patterns have been disrupted.
- **Delayable and discretionary goods:** 23% of the total. This includes the purchases of discretionary, storable goods such as clothing.
- **Social consumption:** another 19%. This is spending on services that depend on close human contact and interaction.

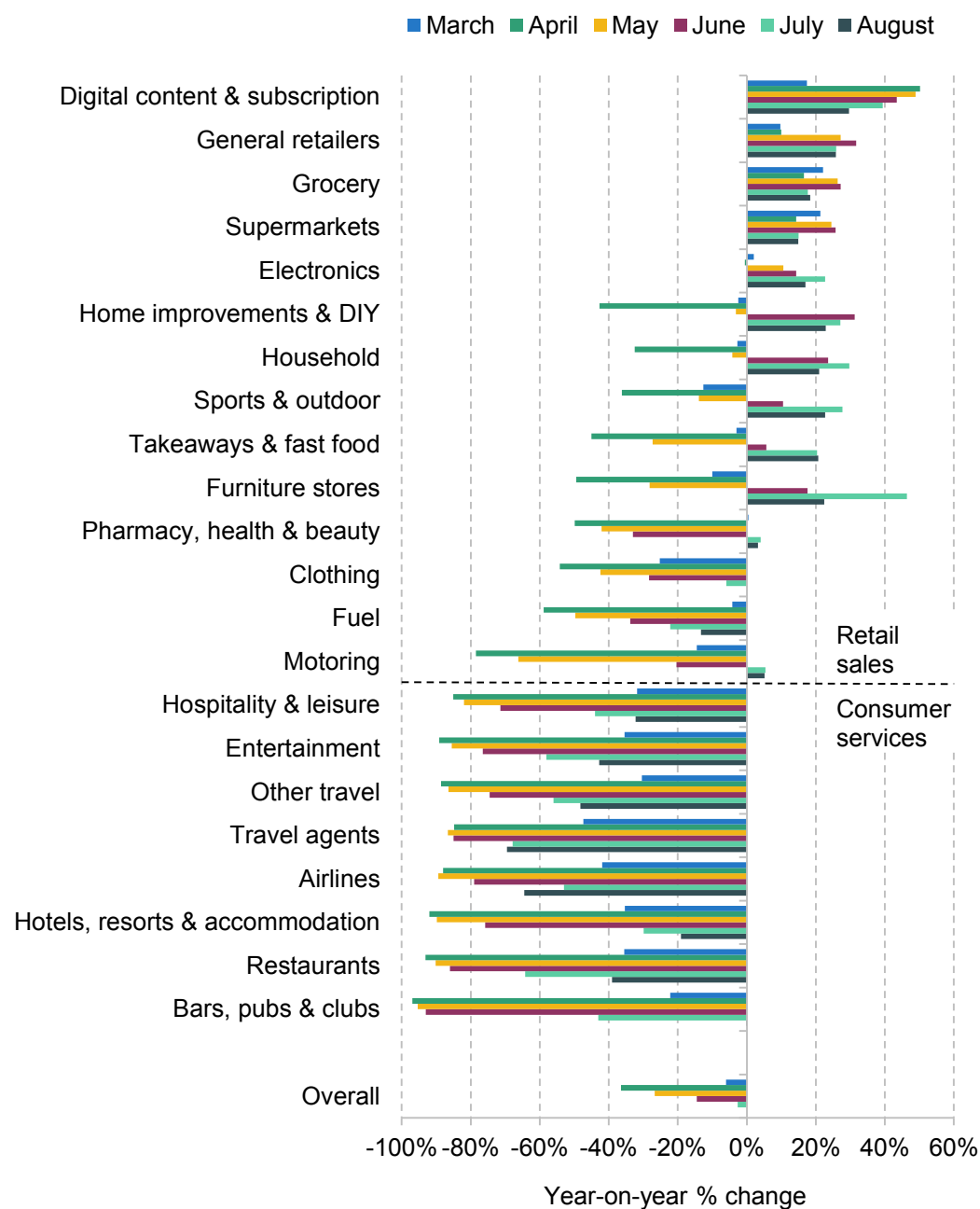
The main upside surprise has been the sharp rebound in durable goods spending. This recovered relatively quickly following a sharp reduction in April (see Figure 2.9). In the months since, this has driven relatively strong growth in retail, with sales excluding auto fuel 4.3% higher in July than the same month a year earlier. A strong rebound in social consumption is also evident in the data for August. This likely reflects policy support – particularly the ‘Eat Out to Help Out’ scheme, which supported more than 100 million meals during the month.<sup>11</sup>

The key issue is whether recent headline strength is likely to translate into more persistent consumer resilience. There are some notable tailwinds here. Strong house price growth, for example, has traditionally provided support to both household sentiment and consumption. Households have also emerged from Q2 with elevated liquid savings following very high saving rates during the lockdown.

However, we are somewhat sceptical that consumption will continue to prove resilient. As we noted above, a range of transitory factors have been supporting consumption so far. Some types of consumption were not possible during the lockdown, and so consumers entered Q3 with pent-up demand. In other cases, particularly related to spending on durables, households might have brought forward purchases that would otherwise have taken place later in the year because they expected to spend more time at home and consumers rotated away from consumer services.

<sup>11</sup> <https://www.gov.uk/government/news/uk-diners-eat-100-million-meals-to-protect-2-million-jobs>.

**Figure 2.9. Year-on-year changes in transaction volumes, March–August 2020**



Source: Barclays and Citi Research.

**Figure 2.10. Attitudes to and take-up of eating in a restaurant**

Note: Percentage of all respondents – sample is of all UK adults.

Source: ONS Opinions and Lifestyle Survey and Citi Research.

Instead, we think virus fears are also likely to continue to weigh here. As Figure 2.10 shows, attitudes towards eating in restaurants had improved over the summer months, but consumers already seem to be turning more cautious in recent weeks as case numbers have increased and new restrictions have been imposed. During winter, there will be less opportunity for businesses to adapt by moving outdoors; this means that there is even more scope for virus fears to weigh on demand (as well as supply). We do not expect lost spending here to be fully redirected elsewhere in the near term, driving saving higher.

### Household saving rates

Household saving rates jumped to 28.1% in Q2, but they are likely to have fallen sharply in Q3 alongside recovery in consumption. Over the rest of the year, though, we expect elevated saving and weaker consumption as virus fears continue to weigh on consumption.

- First, the accumulation of household saving in Q2 seems to have been quite regressive. Incomes have fallen across the income distribution, but most studies suggest reductions in consumption have been focused among wealthier households, at least in absolute terms (see Hacioglu, Känzig and Surico (2020) and Brewer and Gardiner (2020)). This means lower-income households that are likely at greatest risk of unemployment in the coming months are also less likely to have built up substantial savings during the lockdown to help cushion the financial blow. Some of these households may continue to save at higher-than-normal rates to build up a buffer against the risk of unemployment.
- Second, higher uncertainty is also likely to put upward pressure on saving. While uncertainty has had only a muted impact on household consumption in recent years (Nabarro and Schulz, 2019), the key distinction is that household unemployment expectations are materially higher now than they were before (when uncertainty was mostly related to Brexit). In general, the economic impact of uncertainty is driven disproportionately by the possibility of a ‘bad’ outcome, such as losing employment (Bernanke, 1983). This implies uncertainty could now have a greater adverse impact here.

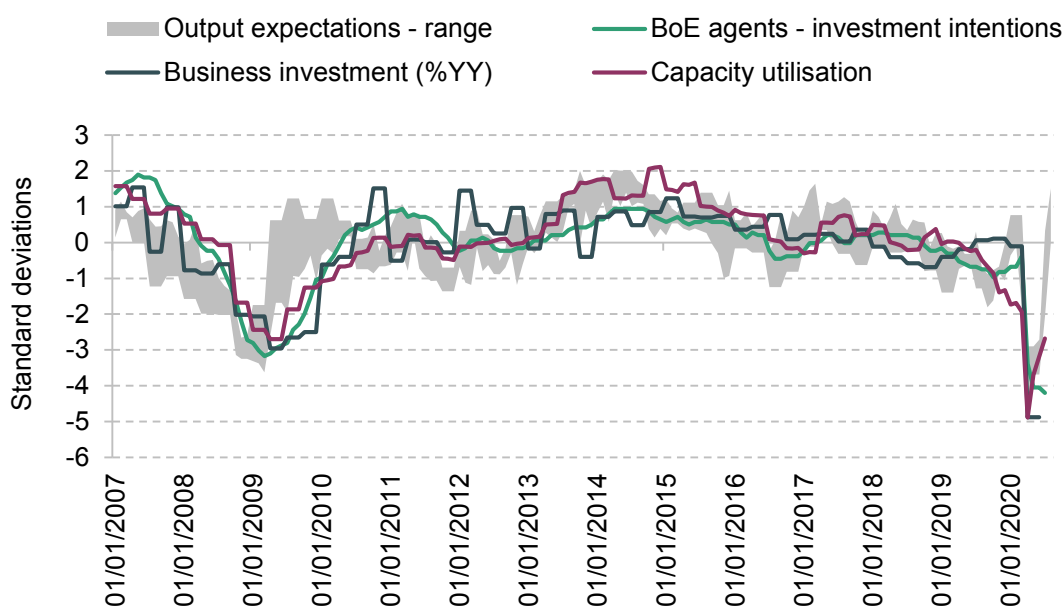
As we noted above, on current plans, policy support will also start to wind down over the autumn and winter. We expect this to also weigh on household sentiment, especially with respect to employment. This risks further weighing on the private consumption outlook even after virus concerns abate (see below).

## Private investment

The near-term outlook for private investment may prove somewhat weaker still. Having fallen by 34.2% in Q2, we expect business investment in Q3 to make up only some of these losses, with 24.0% QQ growth (even with the support from previously deferred expenditures).

Through lockdown, business investment has been depressed by a focus among firms on accumulating cash. This was also compounded by a drop in the rate of new business formation,<sup>12</sup> since new firms are typically disproportionately responsible

<sup>12</sup> For example, VAT registrations have remained weak in recent months. See <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirustheuketheconomyandsocietyfasterindicators/3september2020>.

**Figure 2.11. Change in business investment and other indicators**

Note: Output expectations are based on data from European Commission and CBI, weighted by GVA where needed. Capacity utilisation is an average of respective indicators from BCC, Bank of England and the European Commission.

Source: Bank of England (BoE), BCC, CBI, European Commission and Citi Research.

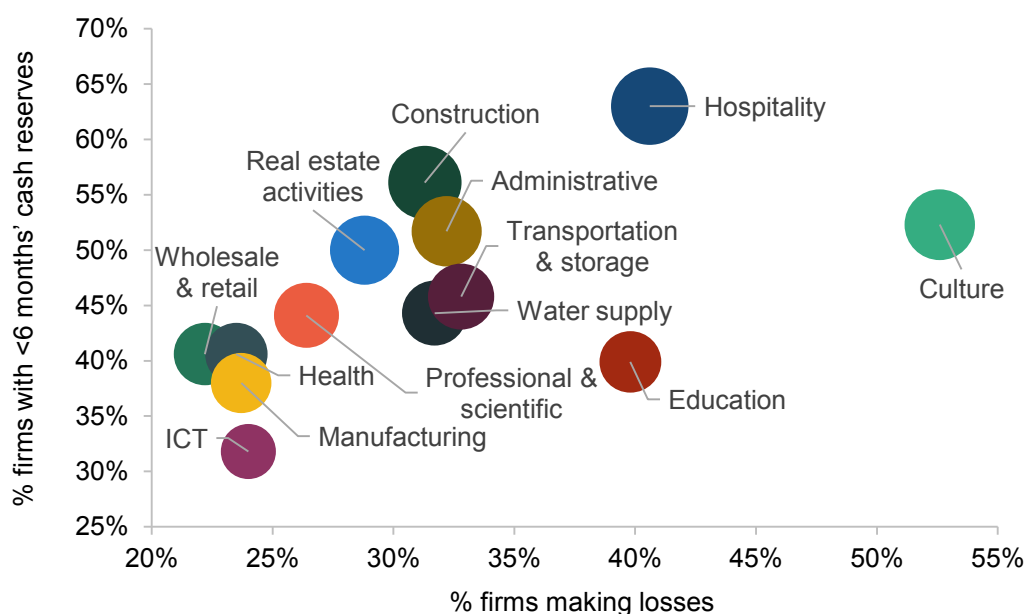
for investment growth (Bank of England, 2020b). Going forward, we expect the outlook here to remain weak. Business expectations of future output remain relatively pessimistic. For the period three months ahead, for example, expectations have improved across most sectors in recent months, but output is expected to remain steady, rather than rebound further. Expectations 12 months ahead – while still positive – have also fallen back. With capacity utilisation scraping all-time lows, this suggests little incentive to invest across the economy as a whole (see Figure 2.11).

High uncertainty seems likely to weigh here too. Even among those firms enjoying relatively strong demand, a lack of clarity regarding the future economic outlook is still likely to incentivise delay to costly investment plans that may or may not pay off. We have discussed these dynamics previously with respect to Brexit (Nabarro and Schulz, 2019). Low confidence in the government's handling of the virus may

also compound these effects (including by raising uncertainty about the timing and extent of future lockdowns).<sup>13</sup>

Weak firm balance sheets will also weigh down business investment. Unlike households, who have typically enjoyed high levels of income replacement during the crisis, firms have received only partial support with their costs (and much of this support has come in the form of loans rather than grants). The implication has been a sharp increase in corporate debt levels.<sup>14</sup> For the time being, credit conditions remain relatively accommodative. Most firms that think they will need additional funding over the coming months also think they should be able to acquire it (Bank of England, 2020c). However, issues may remain further out. As Figure 2.12 shows,

**Figure 2.12. Cash reserves and share of UK firms making a loss, August 2020**

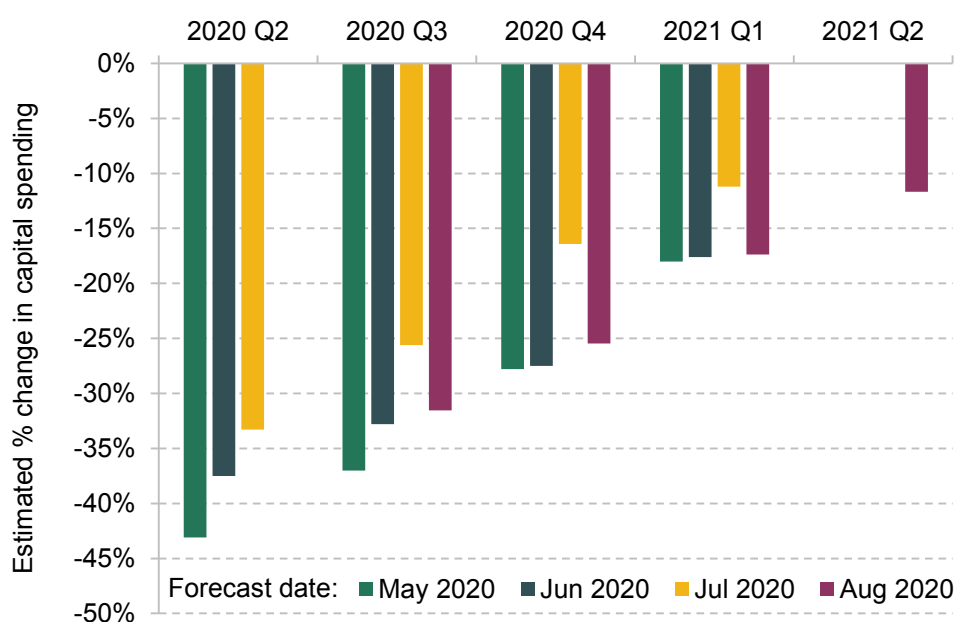


Note: In each case, percentages reflect percentage of all private firms continuing to trade. Size of the bubble reflects each sector's share of employment.

Source: ONS Business Impact of COVID-19 Survey and Citi Research.

<sup>13</sup> See <https://yougov.co.uk/covid-19> and Nabarro (2020a).

<sup>14</sup> These have grown at record levels in recent months, even as consumer borrowing has fallen sharply according to data from the Bank of England. This may imply a higher rate of corporate risk aversion going forward (see Di Tella and Hall (2020)).

**Figure 2.13. COVID-related changes in business investment intentions**

Note: Answer to the question ‘relative to what would have otherwise happened, what is your best estimate for the impact of the spread of COVID-19 on the capital expenditure of your business in [various quarters]?’.

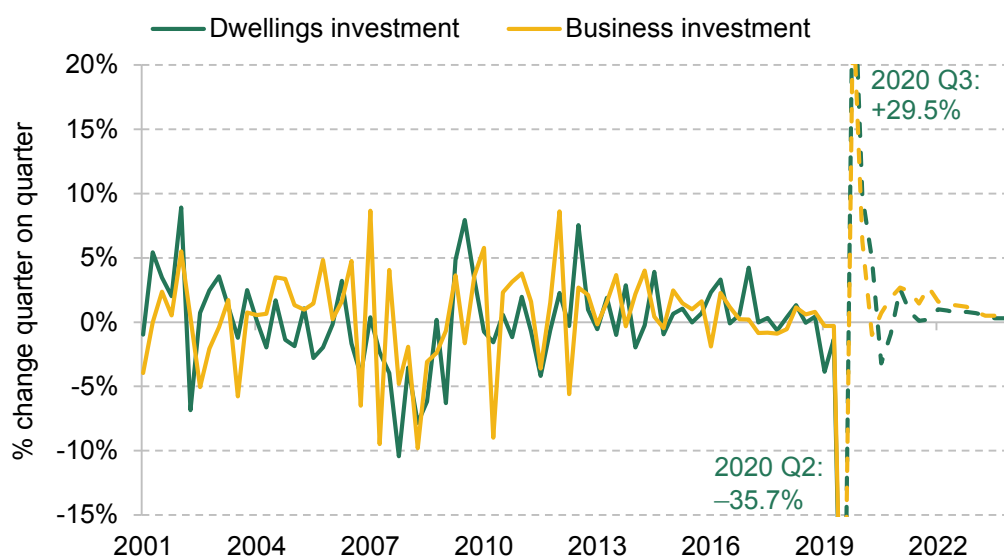
Source: Bank of England Decision Maker Panel survey and Citi Research.

those sectors likely to suffer most because of ongoing weak consumer demand also appear to have the lowest cash reserves. For many firms, boosting cash reserves, rather than expanding capacity, seems more likely to remain the focus.

For now, this high uncertainty regarding both demand and future liquidity implies a weak outlook for business investment. Decision Maker Panel survey data, shown in Figure 2.13, suggest that firms are still set to invest substantially less than usual over the coming months because of COVID-19, with expectations of increasing investment actually falling back over the summer. With Brexit also set to weigh (see Chapter 3), we expect output here to lag rather than lead the recovery.

### Residential investment

Residential investment may prove somewhat stronger in the near term. Having fallen further than business investment in Q2 (–35.7% QQ), we expect a recovery of 29.5% in Q3 (shown in Figure 2.14). In the months since lockdown, some of the initial data for residential investment have been encouraging. Energy Performance Certificates for new dwellings have recovered in recent months from 70-80% below

**Figure 2.14. UK business and dwellings investment (%QQ)**

Note: Forecasts shown in dashed lines.

Source: ONS and Citi Research.

normal levels in mid April to near normal levels in recent weeks (see Table 2.1).<sup>15</sup> The construction PMI for July rebounded markedly, with residential construction the best-performing sector.<sup>16</sup> And housing market activity seems to have been relatively strong over the (late) summer.

Anecdotal evidence has highlighted a bump in housing market activity reflecting previously deferred transactions, the impact of the temporary cut to stamp duty that began in July and new demand as households reassess their housing needs in the wake of lockdown (RICS, 2020). To the degree that this last factor translates into a shift in demand for housing with different characteristics from the current housing stock, it could also spur higher residential investment (as there is more of a need to build).

However, the key near-term support for the housing market is more likely to be policy. We expect a dash for completions in the second half of 2020, as

<sup>15</sup> <https://www.ons.gov.uk/releases/coronavirusandthelatestindicatorsfortheukconomyandsociety17september2020>.

<sup>16</sup> <https://professionalbuildersmerchant.co.uk/news/ih-markit-cips-uk-construction-pmi-july/>.

construction firms seek to pre-empt the end of both the stamp duty cut and the Help to Buy equity loan scheme in March 2021.

Further out, however, we expect both house prices and residential investment to subsequently weaken. Residential investment is generally less sensitive to changes in the output gap, but it is more sensitive to changes in unemployment. As we discuss in Section 2.5, we think the UK labour market is likely to deteriorate sharply in the latter half of 2020. Unlike in 2008–09, a stronger financial sector should preclude a more severe reduction in house prices.<sup>17</sup> But we think this should still result in a more gradual reduction in prices over the coming years. In 2008–09, house prices fell by 17% between 2007 Q3 and 2009 Q1. We expect house prices to fall cumulatively by 11% over two years (from 2020 Q3 to 2022 Q3).

## Exports and trade

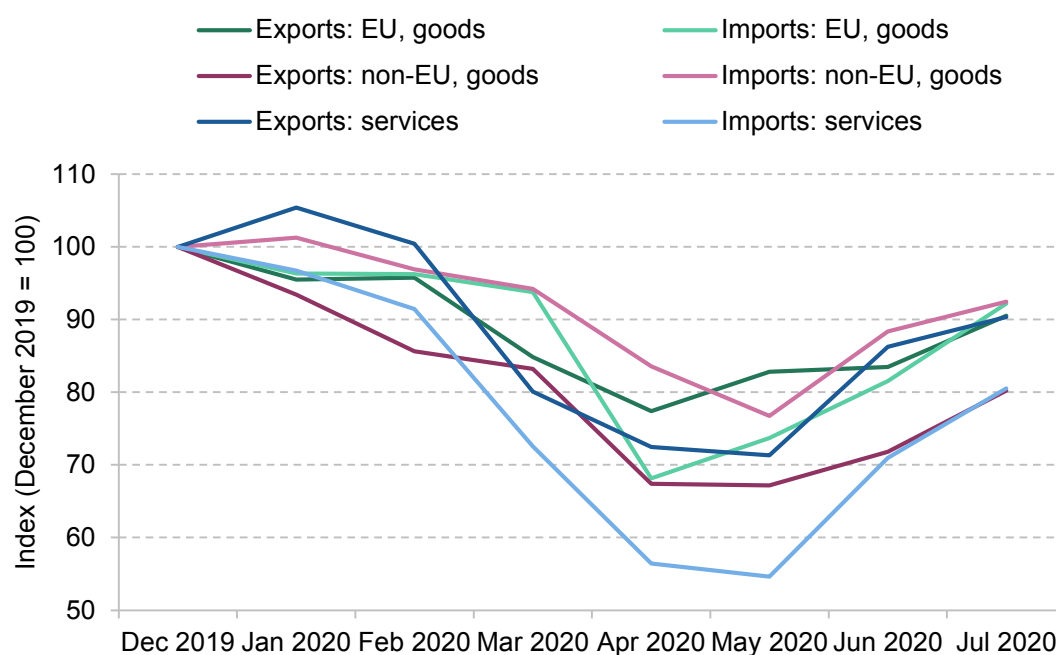
Both exports and imports fell sharply in the first half of 2020. As in the financial crisis, imports have fallen further than exports in recent months, reflecting the relative underperformance of the UK economy in comparison with its major trading partners (see Chapter 1). As Figure 2.15 shows, services imports have been particularly weak. Goods exports (adjusting for the export of non-monetary gold<sup>18</sup>) have proven stronger. The main support here in recent months has been resilient goods exports to the EU, especially in chemical and medical goods.

More recent data suggest UK trade is beginning to tick up a little faster. UK exports of consumer goods to the EU also seem to have rebounded strongly as the EU recovery has progressed (see Chapter 1). We expect a further recovery in imports alongside the rebound in private consumption in Q3.

In Q4, we expect similar ‘pre-Brexit’ dynamics to those we saw in October 2019. Specifically, we think imports are also likely to be boosted by domestic stockpiling.

<sup>17</sup> In recent weeks, for example, the Financial Conduct Authority (FCA) has extended guidance requiring mortgage lenders to support homeowners struggling with repayments as a result of the ongoing impact of COVID-19 (<https://www.fca.org.uk/publications/guidance-consultations/mortgages-and-coronavirus-additional-guidance-firms>). Such measures, we think, should reduce the rate of foreclosures.

<sup>18</sup> The UK trade data have been distorted in recent years by increasingly volatile moves in non-monetary gold. Such moves are neutral for GDP overall, and therefore are excluded from this analysis.

**Figure 2.15. Level of components of UK trade (index, December 2019 = 100)**

Source: ONS and Citi Research.

However, in comparison with, for example, 2019 Q1 ahead of the original March Brexit deadline, we expect these effects to prove somewhat more muted since firms already have high levels of outstanding inventories and may face additional constraints on working capital. We also expect the boost to GDP to prove significantly smaller. This reflects a weaker boost to exports as many EU firms seem to have already adapted their supply chains to rely less on UK exports. This suggests less of a boost to both exports and domestic industrial production than in 2019 Q1.

In the longer term, we think the risks are skewed towards weaker trade growth. Goods exports to the EU are likely to be hit hard by the imposition of non-tariff barriers and customs checks at the start of 2021. As we discuss in Chapter 3, recent developments in the negotiations suggest these costs may prove even greater than those implied at the start of the year, with greater costs associated with a thinner deal and a risk of no deal at all.

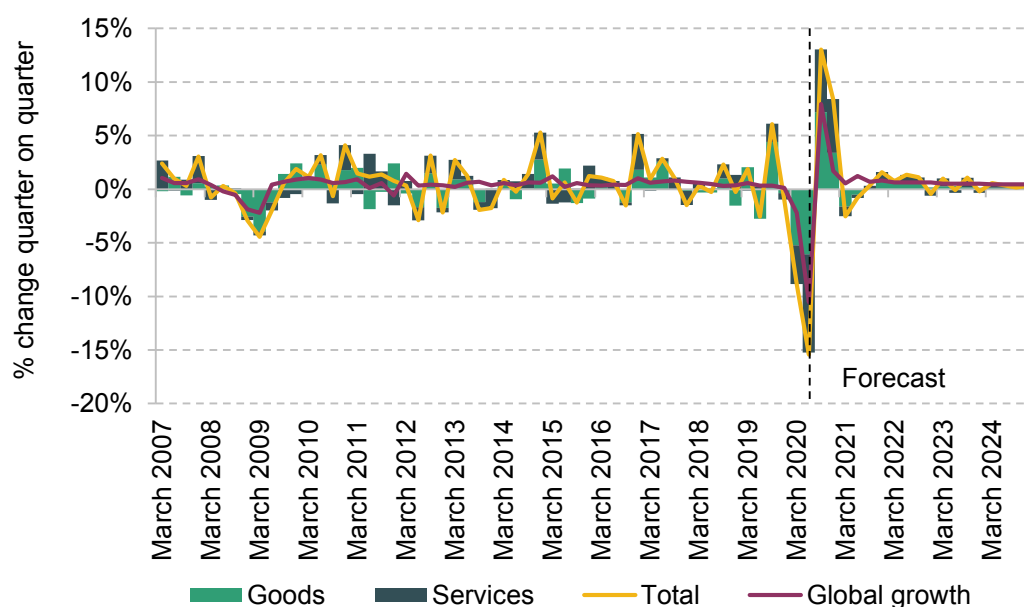
Importantly, we think these changes are likely to prove disruptive to UK goods exports not just to the EU, but also to the rest of the world. In the near term, this may be the result of acute border disruption at the start of 2021 (see Chapter 3). It

may also reflect challenges in rolling over trade agreements with third countries (19 of the 40 agreements reached by the EU have so far been renegotiated). However, in the medium term, trade with countries outside the EU may also be disrupted, with some existing UK comparative advantages potentially based on access to highly specialised value chains with the EU (Schulz, 2018).

Perhaps more notable are the potential risks to the UK's trade surplus in services. As with goods, many of these exports are likely to be subject to additional regulatory barriers when the UK leaves the EU Single Market. Moreover, these services are often highly specialised, making it more difficult for the UK to find new markets in other countries. Indeed, trade deals that offer comprehensive coverage of services are much less common than those that cover goods, with the EU Single Market being the most notable exception. We expect services export growth to remain relatively weak (see Figure 2.16).

Service exports may also face more direct and lasting challenges from COVID. First, lasting virus fears may pose ongoing challenges for international travel – this

**Figure 2.16. Exports of goods and services, and global (UK trade-weighted) GDP growth**



Note: Global growth weighted by UK value added exports from the OECD TiVA database; last observations are rolled forward.

Source: ONS, OECD and Citi Research.

has already been noted in some recent surveys as adversely affecting not just tourism and travel services but professional and business services too. In addition, virus fears could also affect the UK's comparative advantages in producing some of these services. Specifically, the pandemic risks more lasting damage to urban agglomeration economies where some of these industries are clustered. In 2016, London made up 46% of total services exports, compared with around 25% of GDP.<sup>19</sup> The transition towards remote working, in particular, may ultimately make it easier – and more attractive to both firms and many employees – to offshore service employees and relocate activity out of the country.

## 2.5 Looming challenges for the UK labour market

The recovery from COVID hinges on households. Following the jump in saving in Q2, a key question for the recovery from here is the degree to which households utilise new-found liquid assets to drive consumption and a broader subsequent rebound. The fundamental issue is that the shock from COVID also poses a particularly severe risk to the UK's labour market. This risks undermining household sentiment just at the point when strong household confidence is most needed.

Labour demand has fallen sharply in recent months. So far, policy has done a lot of the heavy lifting to help insure households against the risk of unemployment or (much) loss of earnings, and to support businesses. But as this support starts to be withdrawn, we think substantial challenges are likely to emerge. In particular, as virus fears and lockdown measures continue to depress demand in some sectors, some are likely to be forced into redundancies.

### The risk to jobs

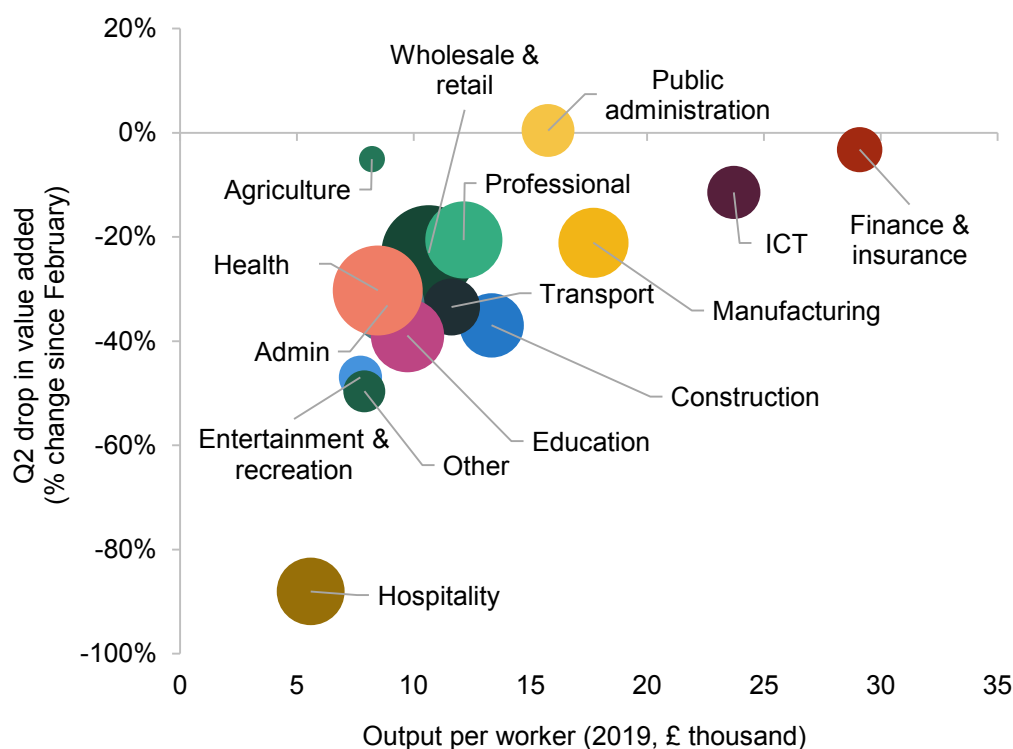
The character of the economic shock from COVID increases the risk to the UK labour market. Not only is the shock very large, but it also disproportionately hits labour-intensive sectors with lower output per worker, as shown in Figure 2.17. Sectors such as hospitality and recreational services – which are highly labour

<sup>19</sup> <https://www.ons.gov.uk/businessindustryandtrade/internationaltrade/datasets/regionalisedestimatesofukserviceexports>.

intensive – saw some of the largest falls in activity in March and April as they were almost entirely shut down. Given virus fears and further social distancing measures such as the ‘Rule of Six’ and pub and restaurant curfews, we also expect weaker demand going forward to be concentrated in these sectors. This will contribute to a slower rebound and leave more jobs at risk.

Since the 2016 referendum, many firms in the domestically focused consumer services sector have also seen their margins squeezed by the combination of relatively high unit labour cost growth and low price inflation (Nabarro, 2020c). In part, this reflects increases in the living wage, but more notably it reflects some of the specifics of the UK’s post-2016 economic cycle – with wage costs likely driven up by the tradable sector in particular as firms compensated for low investment with higher hiring. This means many firms in domestically focused sections of the economy now have less ability to absorb any fall in productivity (for example, because of social distancing regulations) or a fall in demand. This could imply greater, front-loaded risks to employment.

**Figure 2.17. Output per worker and average drop in sectoral value added in 2020 Q2**



Note: Size of the bubble reflects the number employed in a sector before the outbreak.

Source: ONS and Citi Research.

## The UK labour market during the lockdown

So far, policy has effectively protected the UK labour market from the economic fallout from COVID-19. Hours worked fell by 19.3% in Q2 compared with the previous year – broadly commensurate with the reduction in output (see Table 2.3). However, employment as measured in the Labour Force Survey (LFS) was broadly steady, though this did include roughly 5–7 million more workers registering as ‘temporarily away from work’ than in previous years – primarily reflecting the impact of the furlough scheme.

The impact of the government’s interventions since March has been enormous. Historical relationships between employment and hours worked and GDP would have implied an increase in the headline UK unemployment rate of 10.3 percentage points in Q2 (Nabarro, 2020b). Instead, the unemployment rate remained steady at 3.9% – unchanged from Q1. Data from the labour support schemes themselves suggest these may have prevented unemployment increasing to as much as 15%. This reflects the disproportionate exposure of more labour-intensive sectors, and also part-time workers within this area of the economy.

However, even with this exceptional support in place, some notable signs of weakness were still evident in the data from Q2. Employment among part-time workers has fallen sharply. Employment among the youngest and oldest workers has also softened somewhat, with 156,000 16- to 24-year-olds dropping out of employment in the three months to July (compared with the three months prior).

All of this likely understates the severity of recent deterioration, since the survey data from the LFS are likely somewhat flattering. The LFS suggests that there are roughly 750,000 workers who report both that they are temporarily away from work for three weeks or more (but employed) and that they are no longer receiving any earnings. This, we think, reflects growing numbers of furloughed workers who were previously employed by firms that have since closed. In addition, a spike in non-reporting in recent months has seen a growing share of previous responses carried forward, potentially inflating employment. Data from actual payrolls, shown in Figure 2.18, imply a much weaker picture. Compared with the LFS data (which suggest the number of employees actually increased by 159,000 on average in the three months to July compared with February through April), the payrolls data suggest a fall of 497,000. Overall, February to August, the payrolls data now suggest the UK economy has shed 707,000 employee jobs. This is a significantly

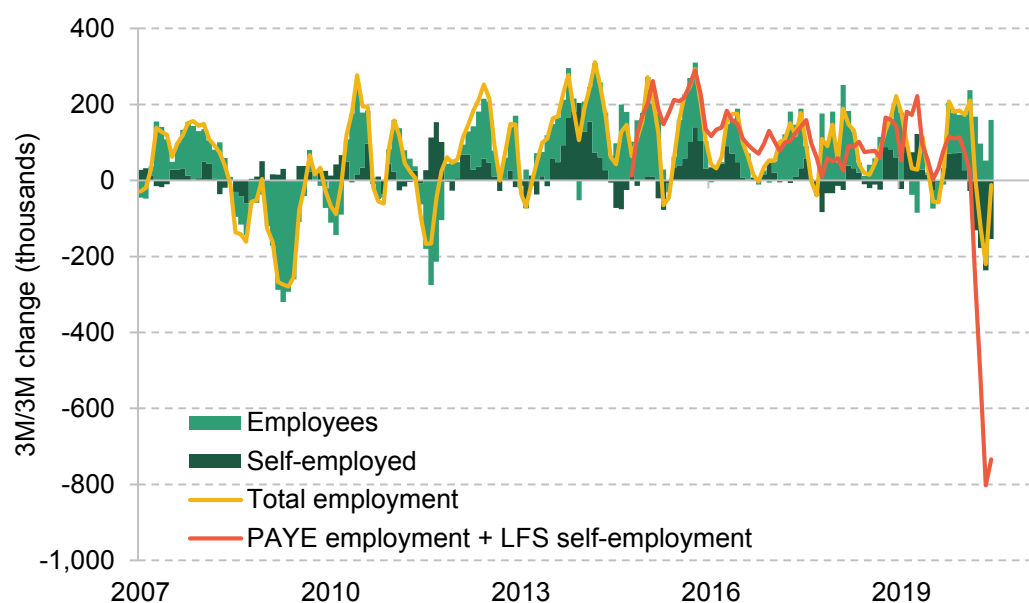
Table 2.3. Various labour market data, 2020

	2016–19 average	Feb 20	Cumulative change since February					
			Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20
Employment ('000)	32,264	33,073	71	–82	–125	–149	–94	-
Employees ('000)	27,251	27,856	108	72	97	160	231	-
Self-employment ('000)	4,828	5,028	–29	–126	–178	–266	–280	-
Full-time employment ('000)	23,715	24,455	–2	–59	37	142	201	-
Part-time employment ('000)	8,549	8,618	74	–23	–162	–291	–294	-
PAYE employees ('000)	28,430	29,016	–11	–471	–606	–626	–741	–707
Unemployment rate (%)	4.3	4.0	–0.1	–0.1	–0.1	–0.1	0.1	-
Marginally attached ('000)	2,005	1,848	21	161	253	238	108	-
Average weekly earnings (%YY)*	2.8	2.9	–0.6	–1.9	–3.2	–4.1	–3.9	-
Total hours worked (%YY)*	1.2	–0.1	–1.1	–8.9	–16.6	–19.2	–17.4	-

\* The rows for average weekly earnings and total hours worked are year-on-year changes.

Note: Employees and self-employed series will not sum to total employment owing to the exclusion of unpaid family workers and those on government-supported training. AWE refers to average weekly earnings.

Source: ONS, HMRC and Citi Research

**Figure 2.18. Employment changes based on LFS and PAYE estimates**

Note: 'PAYE employment + LFS self-employment' reflects changes in a combined index of both tax-based employment estimates and LFS self-employment data. 3M/3M average refers to the change over a given three-month period, compared with the three-month period beforehand.

Source: ONS, HMRC and Citi Research

sharper deterioration than anything seen during the 2008–09 financial crisis – here the economy shed roughly 785,000 employee jobs peak-to-trough (between June 2008 and February 2010).

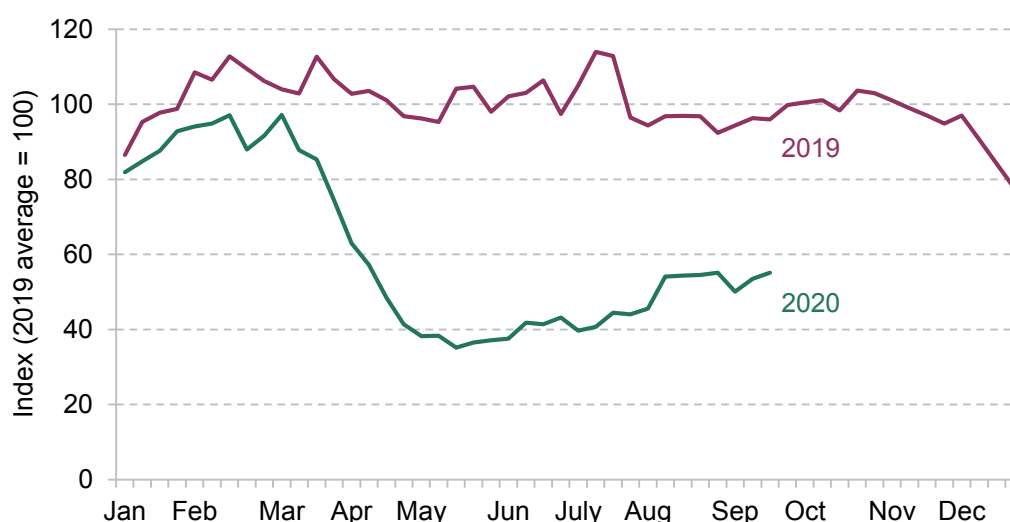
Within the LFS data, we think there are already signs of a larger increase in unemployment to come. The number of workers moving into inactivity but who said they would like a job increased by 511,000 between 2020 Q1 and Q2, by far the largest quarterly increase since 2000. Assuming that many of these would-be workers started looking for jobs in Q3 but not all found paid work, we expect some of these workers to add to unemployment. Similarly, of the 750,000 who were reporting they were temporarily away from work, but were no longer receiving some furloughed income, a proportion of these workers are now likely to start

looking for work. If just half of both groups start looking for work in Q3,<sup>20</sup> this alone would imply an increase in the unemployment rate to roughly 6%, even without any further redundancies.

## Weak labour demand

Reductions in employment to date have largely been driven by fewer people finding new jobs, rather than more people leaving their existing employment.<sup>21</sup> Vacancies have dropped to record lows in recent months (see Figure 2.19), while widespread indicators of labour demand are also at their lowest level on record. Despite the UK economy having now broadly reopened, data here remain very weak. Online vacancies measured by Adzuna remained just 55.1% of their 2019 average in the

**Figure 2.19. Total weekly job adverts on Adzuna, UK**



Source: Adzuna, ONS and Citi Research.

<sup>20</sup> Specifically, (1) those temporarily away from a job at a closed firm, (2) a portion of self-employed workers unable to claim support under the Self-Employment Income Support Scheme and (3) a portion of those moving out of employment into inactivity (see <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/august2020>).

<sup>21</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworking/bulletins/earningsandemploymentfrompayasyouearnrealtimeinformationuk/august2020>.

week to 19 September.<sup>22</sup> The latest official data on vacancies in July also remained 53% of January 2020 levels.

Weak labour demand reflects three factors:

- Average labour costs per unit of output have likely increased significantly. This primarily reflects weaker demand. However, new capacity constraints and fixed operating costs have also likely gone up, weighing on worker productivity. As output continues to lag pre-COVID levels, both effects are likely to weigh, especially among sectors most affected by continued virus fears.
- Emerging financial constraints may also be weighing on hiring as firms seek to conserve cash.
- High uncertainty may also be weighing on labour demand (though likely to a lesser degree than investment, given hiring decisions are more easily reversed) (Di Tella and Hall, 2020).

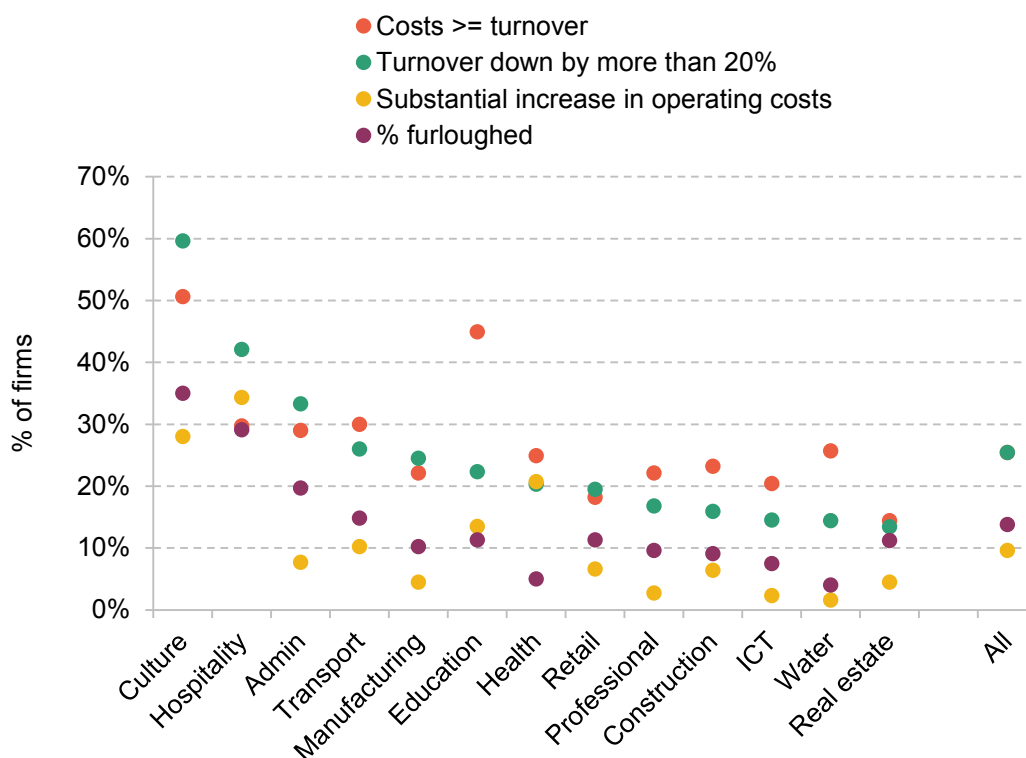
The first of these factors poses a key challenge for furloughed workers. Sharp reductions in product demand in some sectors have already resulted in a relatively large share of the workforce being placed on furlough.<sup>23</sup> Data from HMRC suggest 8.3 million employments were furloughed on average during Q2; we think this amounts to between 7 and 8 million workers, significantly more than the 6 million previously estimated by the Bank of England. Even as the economy has reopened, demand in many of these sectors has remained weak. 25% of private firms are currently reporting turnover either just meeting or falling short of operating costs. And many furloughed workers are employed in sectors where the picture is even worse (see Figure 2.20). As we noted above, we think demand is likely to remain weak here as virus fears linger.

As support is wound down, we expect this to result in a material increase in unemployment within these sectors. In the Winter Economic Plan on 24 September, the Chancellor confirmed the Coronavirus Job Retention Scheme would not be

<sup>22</sup> <https://www.ons.gov.uk/releases/coronavirusandthelatestindicatorsfortheukconomyandsociety24september2020>.

<sup>23</sup> 8.3 million workers were furloughed on average during Q2 (30% of private employees), with 6.8 million still furloughed at the end of June – timelier data suggest this may have fallen to around 4.2 million by the start of August. During July, we think around 18% of private employees remained furloughed.

**Figure 2.20. Share of firms suffering lower turnover, higher operating costs and negative profits, September 2020**

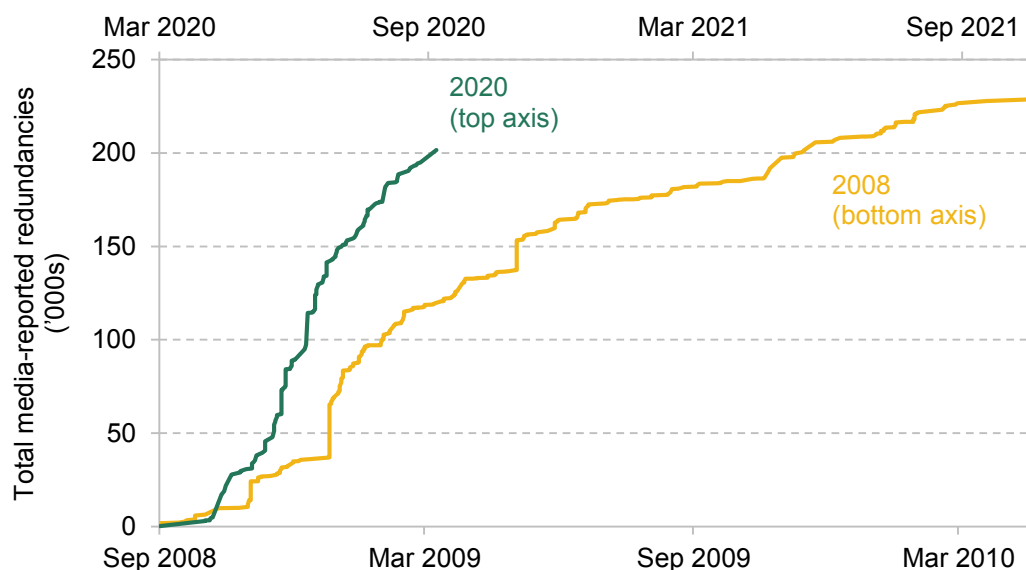


Source: ONS BICS and Citi Research.

extended beyond October. The replacement Job Support Scheme is substantially less generous: employers will need to pay around 57% of normal labour costs for employees using the scheme, up from 29% under the furlough scheme in October. Over the coming months, we think this is likely to result in a sharp increase in redundancies, especially in these sectors suffering persistently weak demand.

Some of these effects may already be beginning to materialise. From August, firms started to incur some of the labour costs associated with furloughed workers (which increased through September and October). In just the seven months from March to September, nearly 202,000 redundancies have been reported in national media. This compares with roughly 230,000 throughout the 18 months following the 2008-09 financial crisis (see Figure 2.21). During the financial crisis, 230,000 media-reported redundancies corresponded to around 4.5 million redundancies as measured in the LFS over the same period (a ratio of almost 20 ‘real’ redundancies for every redundancy reported in the press). However, more-affected sectors today tend to include a greater share of small firms, which could suggest an even higher

**Figure 2.21. Cumulative media-reported redundancies (thousands) during the Great Financial Crisis (2008–10) and Coronavirus Crisis (2020)**



Note: Only includes announcements reported in national media outlets.

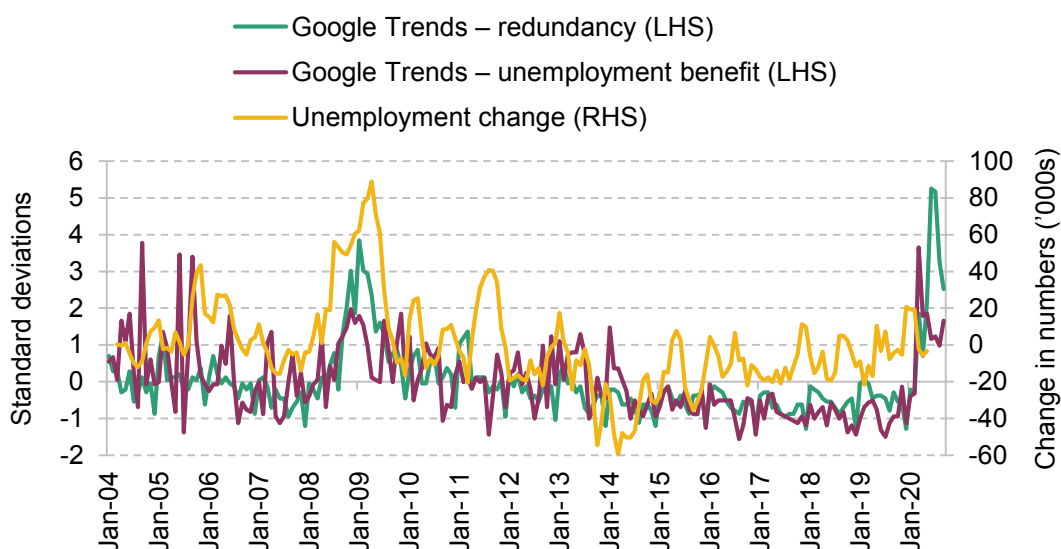
Source: Guardian redundancy tracker, personneltoday.com, various national media outlets and Citi Research.

ratio of job losses to public announcements.<sup>24</sup> Figure 2.22 shows that Google searches for terms such as redundancy, which have historically been a good indicator of increases in redundancies, have also increased sharply in recent weeks (Leslie and McCurdy, 2020).

Important here is that we expect these effects to be driven by weakness in a handful of these more adversely affected sectors. We think these effects are likely to prove persistent. Changes in patterns of demand due to the twin shocks of COVID-19 and Brexit will see some sectors shedding jobs. The affected sectors will not always be the same in both cases, as discussed in Chapter 7; while COVID has (at least so far) been particularly hard on consumer services sectors, the combination of weak sterling and high uncertainty in the tradable sector has driven a substantial increase in employment that is now more exposed to the increased cost of trading with the

<sup>24</sup> Another change since the financial crisis has been the new consultation periods for collective redundancies, which came into force in 2013. Where the number of employees to be dismissed is more than 99, the minimum period has been reduced – from 90 days to 45 days.

**Figure 2.22. Google searches for terms relating to redundancy, and changes in unemployment**



Note: Google search terms measure the intensity with which different items are being searched for on Google's respective platforms. The index is linked to the peak interest in a term since 2004. We have normalised these data over the 2004 to September 2020 period to express these series in conventional standard deviations (with a mean of zero and standard deviation of one). The change in unemployment numbers is a three-month moving average.

Source: Google Trends, ONS and Citi Research

UK that will come from January. Economic reconfiguration in both respects is therefore likely to see a spike in job losses as sectors and workers in both contexts adjust, and potentially a more persistent increase in unemployment too (see Chapter 3).

We expect unemployment to increase sharply from here as the freezing effect of the furlough scheme begins to ease. Our forecasts currently see unemployment increasing to 8.3% in 2021 Q2 when the impacts of both the pandemic and Brexit are felt. The risks here are skewed towards even higher unemployment, especially if further labour market support is not forthcoming. As we noted above, this risks feeding back into a weaker recovery.

### Who's at risk?

The sectoral composition of the current economic crisis has important implications for those who are at risk of unemployment. Three characteristics seem to be associated with a greater risk of redundancy.

- **Age.** Younger workers are disproportionately likely to be either furloughed or unemployed so far in the crisis. A study from IFS in April found that workers under 25 were two-and-a-half times as likely to work in a sector that was closed during the lockdown, and that these shut-down sectors employed nearly a third of all young workers (Joyce and Xu, 2020). While many – though by no means all – of these young people will be able to receive some support from their families, this age group in general has low savings, so reductions in income likely imply a sharper reduction in overall consumption.
- **Income.** Lower-income people are also more likely to be affected, with many of the jobs in these consumer services sectors relatively poorly paid. 27% of workers in the bottom quintile of the earnings distribution have been furloughed according to Resolution Foundation data, compared with 21% in aggregate. Here too some workers may be able to depend on household rather than individual savings – Cribb, Joyce and Xu (2019) showed that lower earners often live in middle-income households. However, of course, not all lower-income workers will have this safety net available.
- **Gender.** Findings on the impact of gender have been mixed. On the one hand, women disproportionately work in more-affected areas of the economy, including hospitality. On the other, women are also more likely to be essential workers. However, we do think that, overall, women are also likely more exposed to the lingering economic impact of the virus.

These effects are all likely to increase the risk to consumption posed by higher unemployment. These compositional effects suggest households with lower savings are likely to be disproportionately exposed. To the extent that credit-constrained workers are subsequently hit harder, this implies a larger reduction in consumption and demand.

## 2.6 The near-term outlook for inflation

Our outlook implies that the second half of 2020 will see overall capacity in the UK economy outstrip demand, leading to negative output gaps and unemployment (both of people and of capital). We expect this to weigh down on inflation throughout the end of 2020, and potentially into 2021. But we expect this downward pressure will be moderated by the sectoral composition of the shock and firms' attempts to hoard cash. This, we think, is likely to mean low inflation, but no deflation, over the coming months.

During the lockdown in Q2, there were pockets of higher inflation: prices for a series of goods, including non-perishable food, increased sharply in March as households adjusted to lockdown, with food prices overall increasing by 1.5% between March and April according to the ONS high-demand products index.<sup>25</sup> However, price pressures seem to have eased subsequently. Price expectations for the coming three months have also eased further, in part reflecting some of the lagged benefits of lower energy prices.

Even during the lockdown, these price rises were somewhat offset in the overall inflation index by the ONS methodology for imputing prices in shut-down sectors. Between April and June, 13–16% of the CPI basket was unobserved owing to the shutdown in large swathes of the consumer services sector. For many of these items, the ONS chose to adopt ‘whole index imputation’, assuming that prices grew at the same rate as did the (observed) index as a whole.<sup>26</sup> But since inflation in these shut-down sectors is usually slightly higher than elsewhere, this generated a disinflationary bias to these data – especially given the reduction in energy prices.

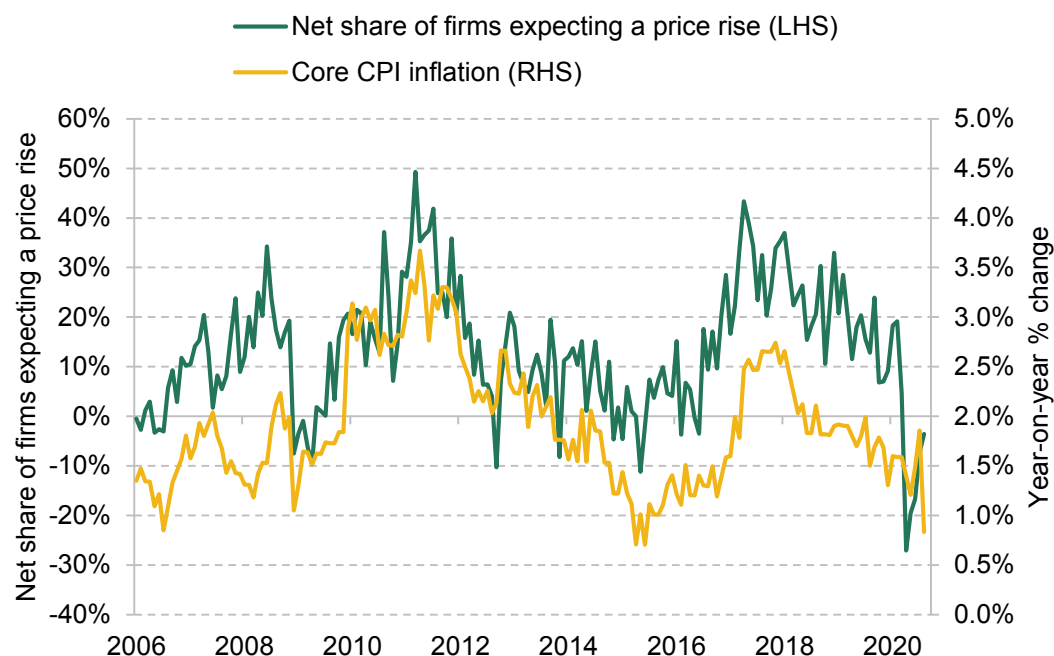
We expect further disinflation in the latter part of 2020 (see Figure 2.23). This primarily reflects weak demand as policy support is dialled down. The 15ppt cut in VAT for the hospitality and recreational sectors is also likely to put downward pressure on prices, though these effects are likely to be partially offset by higher operating costs in some cases. Evidence from the cut in 2008 suggests the impact of such measures tends to be backloaded in these sectors, with the greatest reduction in price observable in the weeks before the measure is lifted.

Given these disinflationary pressures, we expect headline CPI inflation to fall to 0.3% YY in Q4, well below the 1.7% YY inflation seen in Q1 (not to mention the 2% annual inflation target ascribed to by the Bank of England). While a significant fall, any positive inflation is perhaps surprising given the extent of spare capacity in the economy. This is a result of four factors:

<sup>25</sup> <https://www.ons.gov.uk/economy/inflationandpriceindices/datasets/onlinepricechangesforhighdemandproducts>.

<sup>26</sup> <https://www.ons.gov.uk/economy/inflationandpriceindices/articles/coronavirusandtheeffectsonukprices/2020-05-06>.

**Figure 2.23. Core CPI inflation (% change YY) and firms' price expectations for core CPI components over the coming three months**



Note: Price expectations are based on European Commission data and plot the difference between the share of firms expecting prices to rise and the share expecting prices to fall in the next three months. Sectors/goods are weighted by their share in core CPI – Consumer Prices Index excluding food and energy.

Source: ONS, European Commission and Citi Research.

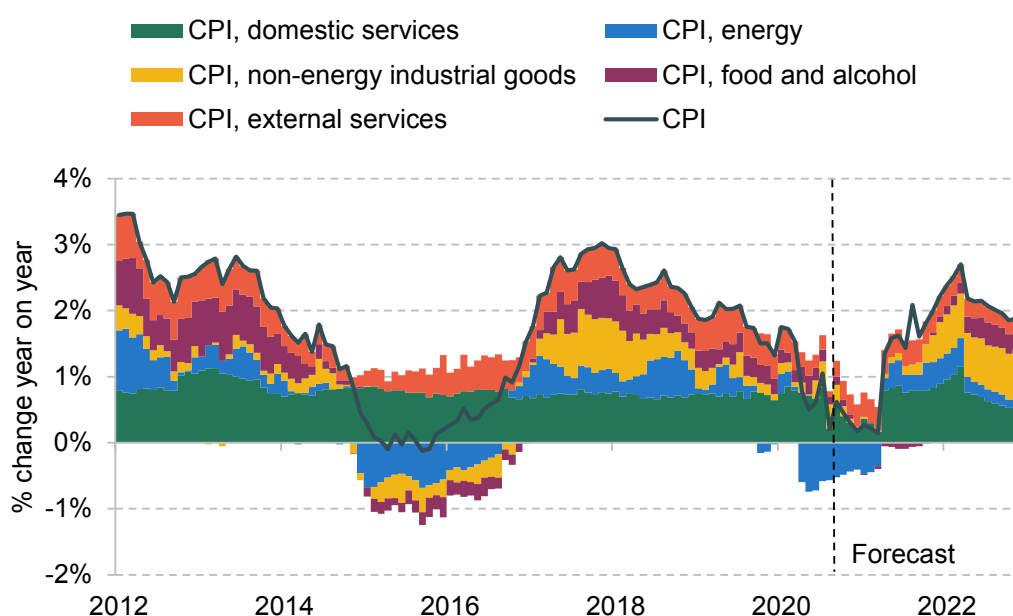
- First, pass-through from spare capacity to domestic (dis)inflation tends to be lower when demand is weak. This is because consumers tend to become less price-sensitive in times of low demand, disincentivising price cuts (Tenreyro and Thwaites, 2016).
- Second, we think weak demand is likely to prove most extensive in sectors that have stickier and less cyclically sensitive prices. Compared with the rest of the economy, prices in the consumer services sector tend to change only infrequently (Bunn and Ellis, 2011). This means pass-through from weak demand to lower prices may be slower (Carvalho, 2006), but also weaker if uncertainty remains high (Woodford, 2009). Some of these sectors also exhibit a weaker relationship between demand and inflation more generally.
- Third, if firms are concerned about their internal liquidity position, this can result in very limited pass-through as long as their consumers are not very price-sensitive (Gilchrist et al., 2017). These characteristics may describe

conditions in parts of the consumer services sector, where demand is typically not very sensitive to price changes. As we noted above, firms do indeed seem to be hoarding cash in an attempt to insulate themselves against potential further shocks.

- Fourth, stronger house prices could also provide some additional support to inflation. While the direct impacts of house prices on headline inflation are relatively small, these can drive near-term inflation expectations higher. Nationally, house price growth does seem to have a statistically significant impact on near-term (12-month-ahead) household inflation expectations. Within the CPI basket, many prices – for example, in consumer services – only change once a year, so inflation expectations 12 months out could have a notable impact (Bunn and Ellis, 2011).

However, despite these upward pressures, we expect underlying domestic inflation to remain relatively subdued for some time to come. Transitory and base effects may push headline CPI above 2% later in 2021, but we think these effects may prove somewhat short lived, with inflation subsequently stabilising at below target levels as spare capacity continues to weigh (see Figure 2.24). However, it is worth noting that several medium-term risks could still push inflation higher over this period, in particular high inflation expectations (see Chapter 3).

**Figure 2.24. CPI inflation (% change YY)**



Source: ONS and Citi Research.

## 2.7 Understanding the outlook, thinking about the judgements

Our outlook is more pessimistic than many others for the UK over the coming years. These differences largely reflect different judgements regarding the fundamental effects of COVID-19 and Brexit. Given the considerable uncertainty regarding the path of COVID, the public health response, and the reaction of firms, households and the economic authorities, no single forecast can confidently claim to be best. Instead, greater degrees of dispersion serve to highlight the risks to the near-term economic outlook. We discuss some of the longer-term risks and Brexit in Chapter 3. With respect to the near-term impact of COVID, however, we think these differences can be broadly summarised via three questions.

- **The development of the virus.** First, we expect virus risk to persist well into 2021. We think risks remain until either an effective vaccine or therapeutic treatment is developed and made widely available. In practice, this could turn out either better or worse than we expect. There have been reports of a vaccine potentially becoming available sooner than the first half of 2021. Recent advances in the therapeutics could also significantly reduce the risks associated with the disease. At the same time, the risk of a second major outbreak and more stringent national lockdown also remains. We judge virus risks remain elevated through the rest of 2020, but then begin to ease between Q1 and Q3 2021.
- **Near-term impact of the virus on demand.** We expect lingering virus concerns to weigh on both supply and demand. As we discussed above, we think these effects are likely to be relatively substantial, but naturally there is disagreement on the scale of these effects and their balance across supply and demand.
- **Reconfiguration and its impact on the labour market.** We think the UK economy is likely to undergo substantial structural reconfiguration in the wake of both COVID and Brexit. We discuss the longer-term effects of this in Chapter 3. However, this also implies a weaker cyclical recovery, with (1) a larger initial increase in unemployment, (2) more substantial reductions in business and household confidence and (3) more persistent negative output gaps. Official forecasts assume a more limited degree of reconfiguration, with the Bank of England's August forecasts, for example, suggesting some issues

with respect to mismatch in the near term, but little reconfiguration in the longer term (Bank of England, 2020b).

### Alternative pathways for the economy

Alongside our central forecasts, we have produced three other illustrative scenarios for this Green Budget, reflecting substantial uncertainty across all three questions.<sup>27</sup> These seek to tease out several alternative paths that the UK economy might chart as the economy emerges from lockdown.

- **Central scenario.** This is Citi's central forecast, adjusted to exclude the impact of assumptions of further fiscal support over the coming months.
- **Optimistic scenario.** In this scenario, virus fears dissipate more quickly than expected, with consumption and the labour market subsequently more resilient. The economy subsequently rebounds more quickly, and output recovers to a level closer to its pre-crisis trajectory in the longer term, with economic reconfiguration kept to a minimum.
- **Pessimistic scenario.** In this case, a repeat outbreak over the winter of 2020–21 forces the imposition of widespread social distancing requirements. Rather than a sweeping and comprehensive national lockdown as in March, this scenario instead reflects some national sectoral shutdowns (such as for the hospitality sector) as well as more comprehensive local lockdowns applying to roughly 15–20% of the UK population at any given time. Given the accumulating risks to firm balance sheets, this scenario is expected to result in a spike of bankruptcies and redundancies, compounding the longer-term economic impact. We expect some support for household incomes in this scenario, but less than in 2020 Q2.

Broadly, the optimistic scenario is comparable to the August Monetary Policy Report forecasts produced by the Bank of England and the 'upside scenario' produced by the OBR in its July 2020 Fiscal Sustainability Report, though unlike the OBR's scenario our optimistic scenario does include some scarring, which seems appropriate. However, our pessimistic scenario is based on different assumptions with respect to the passage of the virus from those used by the OBR in July. Instead, the virus assumptions underlying this scenario seem broadly similar

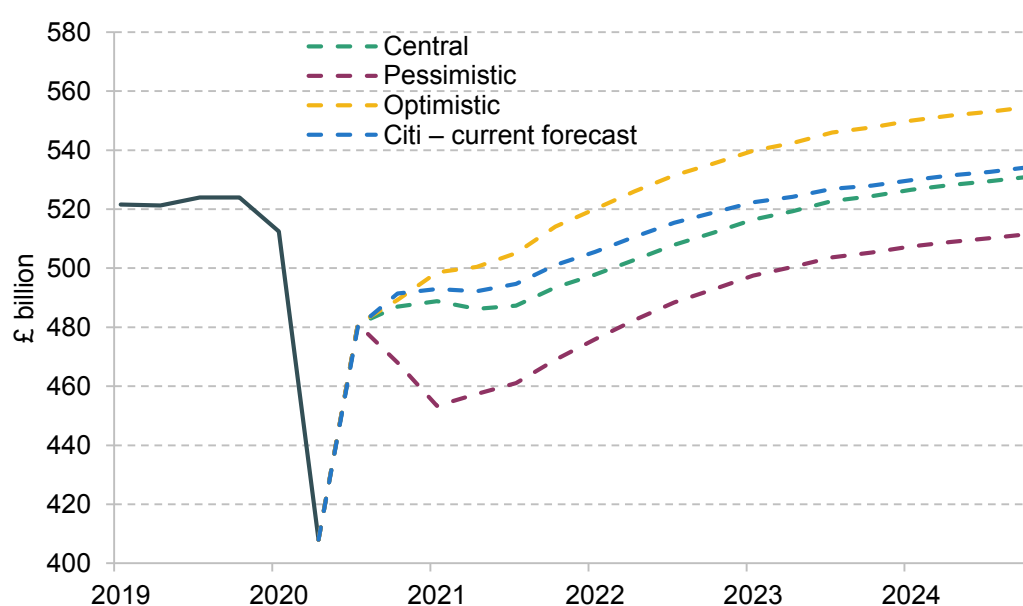
<sup>27</sup> These scenarios broadly build on previous work conducted by both Citi and IFS (Emmerson, Nabarro and Stockton, 2020). This has since been updated.

to the ‘plausible worst case’ scenario reportedly developed by SAGE for the Cabinet Office. This includes both a COVID resurgence and a bad conventional winter flu outbreak: an outcome that would clearly be bad for the UK economy and population and one, we hope, which does not materialise.

In all three cases, we still assume the UK exits from the EU Single Market and Customs Union in early 2021 with a relatively rudimentary trade agreement (see Chapter 3). In all three cases, beyond the repetition of the Coronavirus Job Retention Scheme in the pessimistic scenario, we do not assume any additional fiscal easing beyond what had been announced by 24 September.

We also assume additional support from monetary policy in both the central and pessimistic scenarios. In the central scenario, this takes the form of a cut in Bank Rate (to  $-0.1$  by August 2021) and additional asset purchases to the tune of £110 billion. In the pessimistic scenario, we assume that severe stresses on the financial sector will mean that the Bank of England needs to tread cautiously, and so will avoid cutting Bank Rate and potentially exacerbating these issues. However, the Bank will still respond with monetary support via an even larger, £160 billion programme of asset purchases.

**Figure 2.25. Scenarios for real UK GDP**



Note: GDP figures are based on chained value methodology. Forecasts shown in dashed lines.

Source: ONS, IFS and Citi Research.

## 2.8 Conclusion

Substantial uncertainty aside, the UK faces a long and difficult adjustment in the wake of both COVID and Brexit. The sharp rebound in Q3 was driven by a sharp recovery in capacity and exceptional levels of policy support. Neither driver is likely to last. Instead, we now expect the recovery to slow dramatically. The direct impact of the virus on the economy is unlikely to end with lockdown. Instead, lingering concerns and weak demand are likely to weigh heavily on the outlook through the first half of 2021. Some consumer services sectors in particular will be badly affected. As such, we expect output in Q4 to remain more than 6% below levels in 2019 Q4 – if anything slightly greater than the peak-to-trough fall during the financial crisis.

In reality, the economic challenges associated with COVID are likely just beginning. The key difficulty with respect to the economic outlook from here is what will happen to households: the recovery depends disproportionately on consumer confidence, but the character of the shock poses a specific and considerable risk in terms of unemployment or falls in earnings. We expect meaningfully higher unemployment as policy support is dialled down. This, we think, is likely to weigh sharply on household confidence, which will in turn weigh on the recovery. The sectoral composition of this weakness likely poses particular difficulties. Not only is the immediate economic shock due to hit more labour-intensive sectors; the risks of more-lasting reconfiguration and lower household savings among the workers most at risk mean a larger increase in precautionary saving is also a possibility. High uncertainty and weak expectations are also likely to weigh on household sentiment here, as well as on investment.

Several different paths are possible from here. On the one hand, the lingering impact of the virus could prove less severe. Demand could prove stronger, employment more resilient and the rebound much stronger. On the other hand, a worsening virus outlook could even lead to a second national lockdown. In addition, regardless elevated virus concerns and economic reconfiguration could still weigh sharply on demand and employment. For now, we expect both effects are likely to weigh extensively on the outlook from here. However, either scenario remains a possibility. On balance, we think the risks are probably still marginally skewed to the downside.

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# 3. The cost of adjustment: emerging challenges for the UK economy

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## Key findings

- 1 Brexit remains a substantial economic challenge for the UK. The options currently on the table appear to be restricted to only a thin trade deal or a no-deal exit. **We anticipate that the former case would leave the UK economy 2.1% smaller in 2021 than in a counterfactual where the transition period continues indefinitely;** a no-deal exit could see output depressed by an additional 0.5–1.0%.
- 2 The path that Brexit-related economic impacts take over the next 12–24 months will depend on when changes associated with the UK's exit from the Single Market and Customs Union begin to materialise, and the extent to which firms have already acted to improve their resilience. We think **the majority of Brexit-related adjustment lies ahead.** Weak sterling since 2016 has provided an incentive for many firms to maintain UK operations where they can, even if now unviable in the longer term. Low investment to date may reflect some long-term adjustment, but also reduces overseas firms' economic ties to the UK. Brexit-related adjustments could now therefore prove more front loaded.

- 3 **Both COVID and Brexit are likely to result in medium-term economic reconfiguration, as well as near-term disruption.** The UK labour market, in particular, has shown itself better able to adjust during previous downturns than other countries. Even so, the ‘double whammy’ of COVID and Brexit will make adjusting to the new normal a huge challenge.
- 4 **Adjustment to a post-COVID, post-Brexit new normal will have economic costs that last into the long term.** A rebalancing away from the consumer services sector (COVID) and some parts of manufacturing and financial/ business services (Brexit) would make much of the accumulated capital and skills in these sectors less valuable. For workers, the longer they remain unemployed, the worse their prospects in the labour market. This can have consequences that last for decades.
- 5 The economic response to COVID-19 has seen monetary and fiscal policy complement each other, as the Bank of England and the government both seek to support the economy. However, this complementarity is less assured in the medium term: **upward pressure on inflation (and particularly inflation expectations) could lead to the Bank tightening monetary policy even if fiscal policy still needs to remain loose.** The UK’s dependence on foreign credit remains a notable additional vulnerability. More fiscal support will likely be needed in the near term. But getting the public finances on a sustainable trajectory in the medium term is also now a key challenge.

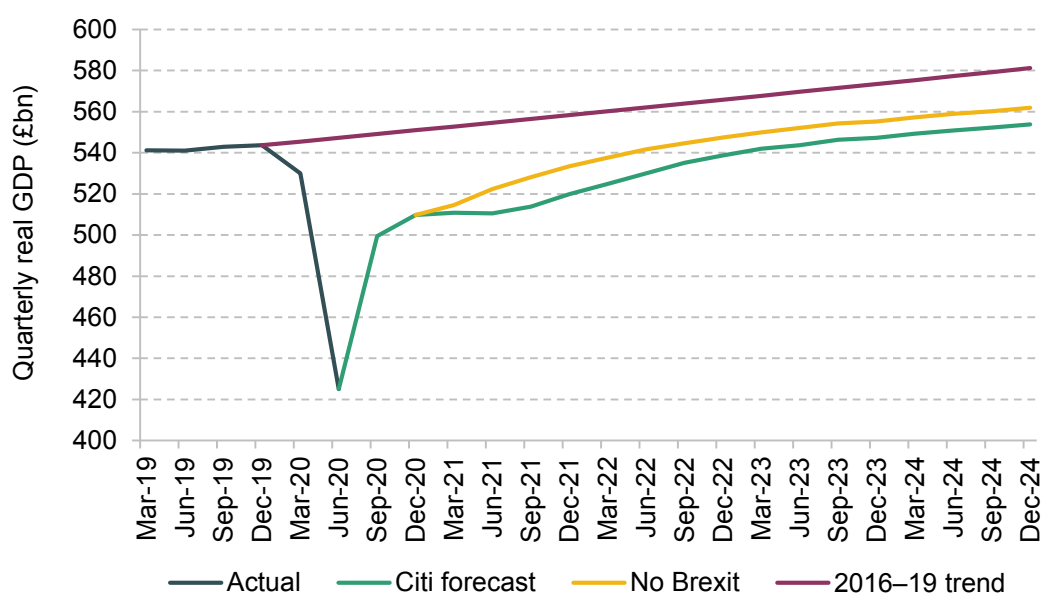
## 3.1 Introduction

All indications are that the UK and the EU are on track to agree only a ‘thin’ trade deal (if any). This sort of agreement is unlikely to avert most of the adverse consequences for UK–EU trade associated with Brexit. Deal or no deal, the UK is therefore on track for substantial economic disruption after the end of the transition period on 31 December 2020.

By and large, the consequences of Brexit will be felt in different parts of the economy from the consequences of the pandemic. However, we think impairments associated with COVID are still likely to compound the near-term economic consequences of Brexit – weighing on both public and private preparedness as well as firm resilience. We expect additional Brexit-related disruption to leave output 2.1% lower in 2021 compared with a counterfactual scenario in which the UK remained in the Single Market and Customs Union. In a normal year, this would be sufficient to push the UK economy into a recession. While we expect some of these losses to be recovered over subsequent years, some permanent losses are also likely.

Both Brexit and COVID imply significant structural reconfiguration in the UK economy in the years to come. Brexit is likely to imply persistently lower trade volumes, even with additional trade agreements. The implication is that some of the sectors where the UK specialises (where exports make up a large share of economic activity) will become smaller, with an associated reduction in economic capacity. While at this stage only a matter of judgement, we also expect COVID to have similar – and indeed larger – long-term ramifications. We expect some permanent reductions in consumer services demand in the wake of the pandemic, for example, as more choose to work from home and cause a more permanent move of economic activity outside of major city centres. This would also imply a permanent write-down to certain, specific, capacity.

We expect output to remain 4.5–5.0% below its 2016–19 trajectory in 2024. We expect this gap to persist thereafter. As Figure 3.1 shows, this is equivalent to an annualised GDP loss of £109 billion in 2016 prices. Roughly 1–1.5 percentage points (ppt) of this effect is the result of permanent reconfiguration and additional write-offs associated with the UK's exit from the EU Single Market and Customs Union. While Brexit uncertainty has (as we noted last year) likely weighed on UK growth between 2016 and 2019, the additional impact from here reflects the confirmation of a more distant relationship with the EU than might have been previously expected and (as we discuss below) our view that most of the associated economic costs still likely lie ahead. The remaining 3–3.5ppt is the result of more permanent reconfiguration in the aftermath of COVID-19.

**Figure 3.1. UK real quarterly GDP in various policy scenarios (2016 prices)**

Note: GDP is calculated as a chained value measure. The OBR-EFO reference scenario is derived from tables 2.3 and 2.7 from the March 2020 Economic and Fiscal Outlook.

Source: ONS, OBR and Citi Research.

This degree of economic pain implies that policy support is likely to remain necessary well into 2022. With monetary policy constrained, fiscal policy will continue to carry the primary burden. For now, fiscal and monetary policy are working in harmony to support the economy: as Chapter 5 discusses, the prospect of low inflation for some time to come means that the Bank of England is expected to keep monetary policy loose for the next few years. But in the medium term, such support is clearly not guaranteed: despite the subdued outlook for overall growth, broader economic reconfiguration could put upward pressure on inflation expectations in particular. This could risk a tightening of monetary policy, even before the economy has recovered to potential.

In the longer term, both COVID and Brexit constitute risks not just to the level of output, but to potential growth rates. Weak productivity has been the UK economy's 'Achilles heel' since the financial crisis. Labour productivity in the UK is already estimated to be 20% below its pre-financial crisis trend, an economic collapse not seen for at least 250 years (Crafts and Mills, 2020). However, we think it could get even worse. Lower levels of economic openness now pose additional downside risks, since the UK will be less exposed to competition from international

firms. Similarly, agglomeration economies in major urban centres tend to boost not just the level of productivity, but also the rate of productivity growth. These too may now prove less potent in a post-COVID world. However, potentially the largest impact could come via lower rates of immigration and reductions in hours worked. We expect net immigration rates to fall substantially over the coming years as the government implements its new ‘points-based’ immigration regime. This, we think, risks weighing further on potential growth.

The persistent economic impact of the current crisis means that the UK will at some point almost certainly need fiscal consolidation in the form of tax rises or spending cuts to bring down its deficit and prevent debt from growing unsustainably (see Chapter 4). Downside risks to potential growth make this even more urgent as they could increase the risk that fiscal policy is deemed to be on an unsustainable path. The UK’s relatively large dependency on foreign capital increases the risk here, especially in the event of another crisis. This could make it harder for the Bank of England to loosen policy and (indirectly) protect fiscal space in the process.

Below, we begin in Section 3.2 by discussing the outlook for the economy as the UK leaves the EU Single Market and Customs Union at the start of 2021. In Section 3.3, we discuss the outlook for UK output in the medium term as the structural consequences of both Brexit and COVID materialise. In Section 3.4, we provide some tentative initial thoughts on how both Brexit and COVID may impact growth in the longer term, before turning to the outlook for monetary and fiscal policy in Section 3.5.

## 3.2 Brexit: economic adjustment still lies ahead

Four years and two general elections have passed since the 2016 EU referendum. However, little in the rules governing the UK’s economic relationship with the EU has actually changed. As the UK leaves the Single Market and Customs Union at the end of 2020, Brexit will – economically speaking – ‘go live’. In principle, workers and businesses have had several years to adjust their business models in anticipation. But in practice, as in the experience of New Zealand when the UK

joined the European Economic Community in 1973,<sup>1</sup> we think the UK economy has actually adjusted relatively little to the new economic relationship with the EU. The UK economy therefore faces another sharp economic adjustment at the start of 2021, even as the wider economic impacts of COVID continue to materialise.

### What can be agreed?

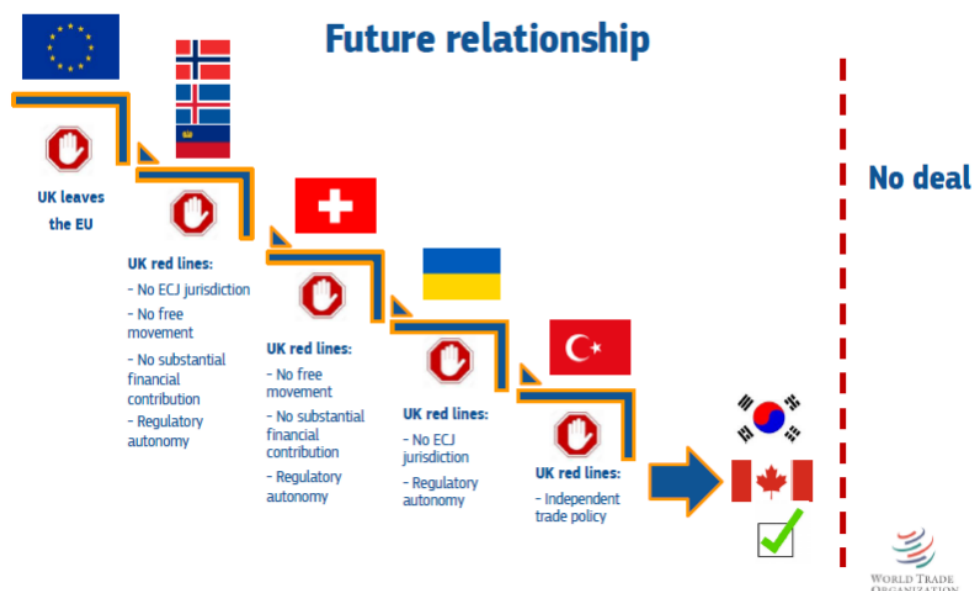
Deal or no deal, substantial economic disruption in early 2021 is now likely unavoidable. Most of the costs associated with Brexit are the result of ‘non-tariff barriers’. These fall outside of the scope of conventional trade agreements (unlike the EU Single Market). However, since the 2019 general election, any more ambitious relationship has been ruled out. The amended political declaration (October 2019) dropped previous suggestions of a ‘single customs territory’, ‘regulatory alignment’ and a deal on trade in goods that was ‘as close as possible’ (Owen, 2020). Instead, these were replaced by the aspiration of an ‘ambitious free trade agreement’. Even the best-case scenario has therefore become firmly anchored at the bottom of the set of ‘stairs’ that EU chief negotiator Michel Barnier outlined in 2017 (see Figure 3.2).

Developments since have further compressed the range of potential economic outcomes. Two factors have been key here. The first was the rejection over the summer of any kind of extension to the transition period. The subsequent tight negotiation timetable precluded a broader change of heart as well as a closer agreement. It also undermined hopes of meaningful talks in a range of ancillary areas, such as customs facilitation or equivalence, that could have alleviated near-term disruption associated with a deal.

Second, and more significant, was the UK’s rejection of widespread ‘level playing field’ requirements set out by the EU at the beginning of the negotiations. The political declaration required the UK sign up to commitments ‘commensurate with the scope and depth of the future relationship’. The EU’s initial negotiating mandate set out demands for so-called ‘dynamic alignment’ in a range of areas such as labour and environmental standards, as well as state aid. This would have

<sup>1</sup> Commonwealth countries lost their preferential access to UK markets in 1973 following the UK’s entry into the EEC. New Zealand offers a case study. See box 2C of Bank of England (2018).

**Figure 3.2. Trade-offs between access and continued alignment in a potential Brexit deal**



Source: European Commission: slide presented by Michel Barnier to the Heads of State and Government at the European Council (Article 50) on 15 December 2017.

committed the UK to ensure its own regulation remained in lockstep with the EU in future across these areas.

The UK government has pushed back hard against such requirements. In its initial position paper in February 2020, the government noted it opposed ‘any obligations for our laws to be aligned with the EU’s’ (HM Government, 2020). Subsequent negotiations have seen the EU water down its demands. The EU is now reportedly seeking assurances on state aid only, as well as a handful of non-regression clauses in other areas. The issue is now reportedly whether the UK can agree to a shared ‘set of principles’ on subsidies, an associated domestic regulator with the power to enforce them, and a robust dispute resolution mechanism. This is substantially more limited than EU demands at the start of 2020.

These (EU) concessions have likely come at a cost of ruling out a more ambitious agreement and greater EU market access for the UK. We think the reduced scope of an agreement has been evident in EU communications since both sides agreed to this narrower approach on 15 June. For example, the European Commission communication on 9 July seems to rule out customs facilitation, as well as the mutual recognition of professional qualifications (European Commission, 2020).

Both were often assumed elements of a future trade deal. This more threadbare approach, in our view, also rules out other potentially important provisions within a free trade agreement itself. This includes provisions such as a so-called ‘model 4’ agreement on trade in services, which makes it easier for individuals to travel into another jurisdiction for the purpose of providing a service. Similarly, we also do not expect more accommodative provisions with respect to rules of origin<sup>2</sup> – this seemed to be confirmed in recent weeks when the EU rejected UK proposals to treat Japanese and Turkish intermediate imports as British for the purposes of UK exports to the EU.

This may have important implications for the prospect of any further future deals over the coming years. First, as the UK works to secure trade agreements with third countries, the future of UK institutions and regulation is likely to remain in flux. We think this will make the EU reluctant to grant much wider access in the absence of sweeping guarantees. Second, the loss of trust between the UK and the EU during the negotiations – not least as a result of the UK’s decision to contravene the Withdrawal Agreement – may also mean future negotiations take place in a climate of mutual suspicion. The focus on negotiating only one or two very specific commitments, compared with more sweeping regulatory alignment, also risks compounding the impact here, heightening EU suspicion. Third, and more fundamentally, the fact that the UK is looking to diverge from the EU, rather than converge, also means that some of the usual political imperatives resulting from growing interdependence apply less strongly. This, again, suggests the lack of material and sweeping commitments may have a more lasting impact.

At the time of writing, we continue to think a deal is more likely than not by the end of 2020. However, the important point for the economic outlook from here is that the range of potential outcomes associated with Brexit has narrowed significantly. Less-disruptive options such as a customs union and/or continued membership of a single market have been incrementally ruled out. The plausible deal that remains is

<sup>2</sup> Rules of origin are the criteria used to govern the national source of a product. They are important as they govern which goods exports (for example) by the UK to the EU are actually eligible for a tariff reduction under the terms of a free trade agreement. Most rules of origin requirements require that more than 50% of the value of that good has to have been produced in the country in question to be eligible. In the UK–EU deal, we expect similar conditions to apply. We expect some provisions on cumulation, meaning that intermediate goods imported from the EU to the UK and re-exported back to the bloc count as ‘British’ for these purposes. However, we do not expect such provisions to apply to goods imported from elsewhere, even when the country has a tariff-free agreement with the EU (as Japan does, for example).

– in a direct economic sense – now much closer to ‘no-deal’ than, say, former Prime Minister Theresa May’s ‘Chequers’ proposal in 2018.

### The scale of potential non-tariff barriers

In the near term, the primary costs of Brexit are likely to come via an increase in non-tariff barriers and the resulting reductions in trade. In 2018, the Bank of England estimated around 80% of the total reduction in trade associated with Brexit would result from such restrictions (Bank of England, 2018). In total, we think additional barriers to UK trade with the EU are now likely to total 9% in tariff-equivalent terms even in the case of a deal. In the event of no-deal, we think the total impact could be as high as 13%. The additional 4 percentage point impact reflects first the impact of tariffs, but also some additional non-tariff barriers associated, in particular, with the transfer of personal data and equivalence processes for the financial sector.

But, deal or no deal, the vast majority of the associated trade frictions now seem likely to materialise. The flipside of this is that the UK is now also likely to enjoy most of the additional domestic policy freedoms that would be available under a ‘no-deal’ scenario – providing wider policy discretion in the longer term.

Our estimates for non-tariff barriers are a little higher now than the 2018 analysis conducted by the Treasury (see Table 3.1). This reflects two changes to any agreement compared with what was assumed then. First, as we noted above, we think UK service providers are now unlikely to benefit from a model 4 services agreement, inhibiting the ability of UK citizens to travel to the EU in order to provide a service. Second, UK-based professionals seem unlikely to benefit from

#### Note and source for Table 3.1

Note: All non-tariff barriers are denoted in tariff-equivalent (%TfE) terms. EU tariffs are from the bloc’s ‘most favoured nation’ schedule. More granular analysis suggests these costs may actually be a little higher (the Office for Budget Responsibility (OBR) has estimated costs of around 3.3%). Rudimentary deal and no-deal columns denote total new UK–EU trade frictions. Data for non-tariff barriers in the event of a Treasury free trade agreement (FTA) and no-deal are taken from the Treasury’s (2018) long-term Brexit analysis. For no-deal, we use our own \* figure for the financial sector assuming a less accommodative approach to equivalence than initially assumed by the Treasury.

Source: ONS, HM Treasury (2018) and Citi Research.

Table 3.1. Sectoral exposure to a rudimentary Brexit deal

	GVA share (2017)	UK–EU trade	% of trade with EU	Non-tariff barriers			EU tariffs (%)	Rudimentary deal (%)	No-deal (%)
				Treasury FTA (%TfE)	No-deal (%TfE)	Citi 2020 FTA (%TfE)			
Manufactured goods	9%	£138bn	49%	8%	10%	8%	3%	8%	13%
Agri-food	2%	£17bn	74%	13%	15%	13%	20%	13%	35%
Non-financial services	60%	£265bn	51%	9%	12%	10%	0%	10%	12%
Financial services	7%	£35bn	38%	13%	15%*	13%	0%	13%	15%
Networks	8%	£68bn	49%	5%	9%	7%	1%	7%	10%
Dwellings	14%	-	-	-	-	-	-	-	-
<b>Total</b>			<b>50%</b>	<b>9%</b>	<b>10%</b>	<b>9%</b>	<b>2%</b>	<b>9%</b>	<b>13%</b>

Note and source: See previous page.

EU recognition of professional qualifications: an EU Commission communication on 9 July suggests that this is unlikely to be agreed, meaning UK nationals will have to ensure their qualifications are recognised by each respective member state (European Commission, 2020).

### The timing of non-tariff barriers

Non-tariff barriers can be ‘at the border’ measures such as customs checks. These also include regulatory barriers, registrations and product standards (so-called ‘behind the border’ requirements). These costs may materialise at different speeds: while the cost of additional customs restrictions on UK exports to the EU, for example, will apply from day one, some other costs – such as regulatory divergences – will accumulate over time.

We think most of the costs associated with Brexit are likely to prove relatively front-loaded, implying greater economic disruption in 2021. Outside of manufacturing, most of the additional regulatory burdens we highlight in Table 3.1 apply from day one – for example, new rules on the recognition of professional qualifications, new licensing requirements, and limits on travel and selling services into the bloc.

Within manufacturing, some of the regulatory costs may accumulate gradually – for example, those associated with different regulatory regimes (around a third of the total). But even here, the majority of non-tariff barriers are likely to apply immediately. UK officials estimate the cost to UK companies of filling out customs declarations alone, for example, could come to £7 billion a year.<sup>3</sup> Other immediate costs, such as the requirement to re-register as an authorised economic operator and to re-apply for the appropriate licences in order to export, will also be significant for many firms. Ciuriak et al. (2015) estimated administration costs alone could come to roughly 0.3% in tariff-equivalent terms. These are mostly one-off costs, but they are also likely to fall in 2021.

Lower levels of government preparedness in the wake of COVID risks compounding some of these near-term economic costs for firms. The management of and response to the pandemic have clearly – and rightly – occupied much of the

<sup>3</sup> <https://www.ft.com/content/fbc6f191-6d69-4dcb-b374-0fa6e48a9a1e>.

government's time and attention over the past six months. But while this has been vital, it has inevitably detracted from the government's Brexit preparations. Even before the start of the outbreak in the UK, the Institute for Government noted that the government would find it practically challenging to get the necessary Brexit-related infrastructure in place quickly (Owen et al., 2020). The pandemic has made this harder still.

In response, the government is considering some measures to reduce the scale of the challenge. It is reportedly planning to revert to minimal checks on imports during the first six months of 2021 regardless of whether a deal is agreed (implementing a Transitional Simplified Procedure regime initially created for no-deal). Imports may be less severely affected than exports initially as a result – though this would actually worsen the impact on GDP (via net trade). However, soft-touch checks on imports will not be a silver bullet to avoid disruption: since much of the freight industry depends on two-way flows of goods, hold-ups to UK exports at the EU border will have an impact on UK imports as well. At the very least, this would imply a substantial increase in freight costs.

These knock-on effects of border disruption (such as traffic jams or hold-ups to lorries travelling back and forth) imply more general risks to trade at the start of 2021, and an associated increase in costs. The UK needs to significantly expand its own infrastructure to process customs exit declarations and clear consignments. There are challenges associated with 'roll-on-roll-off' trade in particular. The UK government is developing a new Border Operating Model ('BOM') IT system to manage these flows, but time is tight. Failure risks clogging up the border through the new year, resulting in larger delays and more costs for exporters and importers alike. The likelihood of some additional disruption in early 2021 also implies a somewhat front-loaded profile to the costs of the UK's exit from the Single Market and Customs Union. Some of these costs would likely ease subsequently.

There is still a risk that some barriers could materialise sooner than we expect. Recent commentary suggests growing risks for business and finance in particular. In the first case, data adequacy is a notable potential stumbling block: without 'data adequacy' status certifying that the UK's data protection rules are comparable to those in the EU, companies will not be able to freely pass personal information between the jurisdictions. In the latter case, it is not at all clear that the UK's financial sector will enjoy the sweeping equivalence-based access we currently assume (which could entail the EU accepting UK regulations as largely equivalent

to EU ones, meaning that businesses would not need to comply with the EU regulations to operate there). With some EU countries now viewing the UK as an ‘economic competitor’,<sup>4</sup> barriers in more strategically sensitive areas could emerge somewhat faster, and prove larger, than we currently think. The challenge is that these are often sectors in which the UK also enjoys a comparative advantage.

### The timing and scale of adaptation to come

A key question regarding the economic costs of Brexit is the extent to which UK businesses have used the time since the Brexit referendum to prepare themselves for a new, looser relationship with the EU. There are two questions here:

- First, to what degree have firms dialled down activity that could now be more expensive as a result of the UK’s exit from the Single Market and Customs Union?
- Second, to what degree have firms readied themselves for the additional administrative costs of operating outside of the EU?

Clearly, some businesses will have used the last four years to prepare. However, in both respects, we think substantial challenges lie ahead. Indeed, some of the trends since 2016 point to the economy becoming more susceptible to immediate disruption over the coming months. Specifically, we think many firms have not been able to brace themselves for the coming disruption owing to the effect of COVID. In addition, we think the weakness of sterling has meant many firms have chosen to keep activity open since 2016, even if it will become unviable after the UK leaves the EU Single Market and Customs Union.

### The role of weak sterling

Since 2016, the 20% depreciation of sterling has boosted growth, and profitability, in economic sectors more exposed to Brexit. Across the UK economy, there are some goods and services that are considered ‘tradable’ (such as cars or some financial services) and others that are not (such as real estate activities). The distinguishing feature is whether the good or service could be provided by a firm in another jurisdiction. Among tradable groups, the ‘law of one price’ generally applies, in that there is a global price for the good or service in question. When the

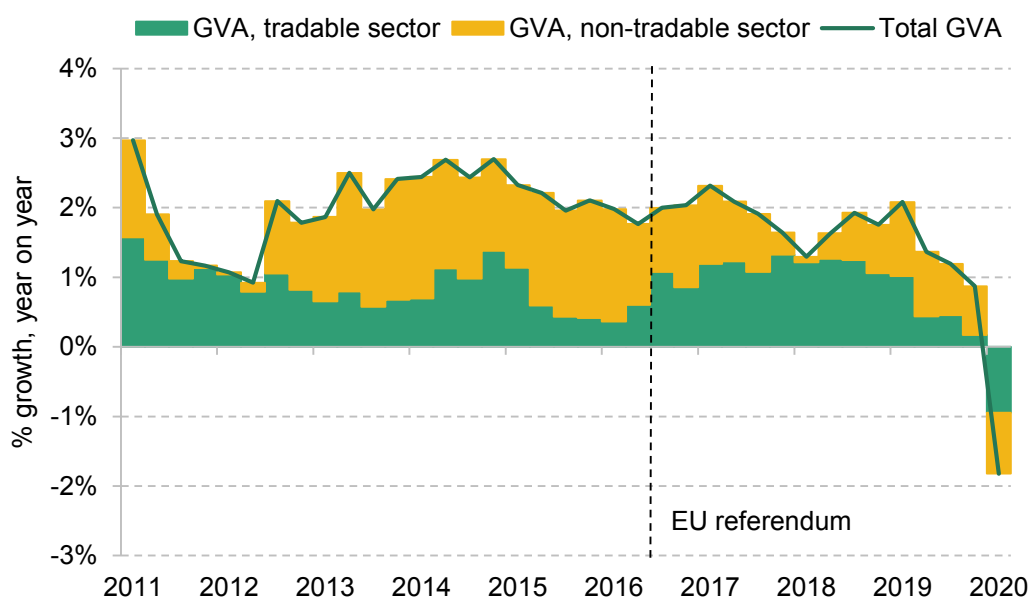
<sup>4</sup> <https://www.politico.eu/article/uk-to-become-economic-competitor-after-brexit-merkel-warns/>.

currency depreciates, prices in this part of the economy subsequently increase (since it costs more in sterling to meet the global price). Domestic firms producing these goods and services suddenly enjoy an advantage, as the value of their goods and services (in sterling terms) increases.

Since 2016, the 20% depreciation in sterling has significantly boosted prices in the tradable sector. However, this change in the exchange rate has not been accompanied by any of the actual changes in the UK's external relationships (and associated costs) that the exchange rate shift was supposed to reflect and offset. The net result has been a notable jump in profitability in the tradable part of the economy. This has boosted growth. Figure 3.3 shows that, since 2016, the tradable sector has subsequently driven a disproportionate share of growth in the economy.

Different parts of the tradable sector have both positive and negative exposures to Brexit. Theory predicts that higher post-Brexit barriers will hurt some companies

**Figure 3.3. Year-on-year growth in gross value added (GVA) of the tradable and non-tradable sectors**



Note: Tradable and non-tradable sectors derived using ONS supply and use tables across two-digit SIC industrial classifications. The total imports plus exports are divided by the sector's GVA to obtain a traded share for each sector for 2015. A 10% threshold is then used to delineate between tradable and non-tradable sectors (Betts and Kehoe, 2006; Broadbent et al., 2019).

Source: ONS and Citi Research.

and sectors in some parts of the tradable sector (where the UK has a comparative advantage relative to the EU) but could help others (where domestic firms had been struggling to compete with European companies). In the latter case, there is evidence of higher growth since 2016 as a result of sterling's depreciation. Year-on-year growth in food manufacturing, for example, was above the average across the whole economy in all but one quarter between 2016 Q2 and 2019 Q1. This could indeed reflect some of the positive economic impacts from Brexit beginning to materialise, with weaker sterling providing these firms with a cost advantage over their EU (and indeed other global) competitors.

However, these effects also seem to have boosted profitability and growth in areas that are now likely to be adversely affected by Brexit. In these areas, the substantial depreciation in sterling compared with the Euro has generated a significant cost incentive to keep activity in the UK as long as EU market access has remained unchanged. Given the transitory nature of the boost, firms may still have avoided new investment and other long-term commitments, but we think these incentives have stopped firms from divesting, precluding anticipatory adjustments and in some cases potentially driving additional hiring too.

Looking forward, this means that, while depreciating sterling may have already delivered some of the potential growth *benefits* associated with Brexit, we do not think it has done the same for the larger set of *costs*. Instead, we think many of the associated divestments and losses still likely lie ahead.

### Uncertainty, investment and the rate of adjustment

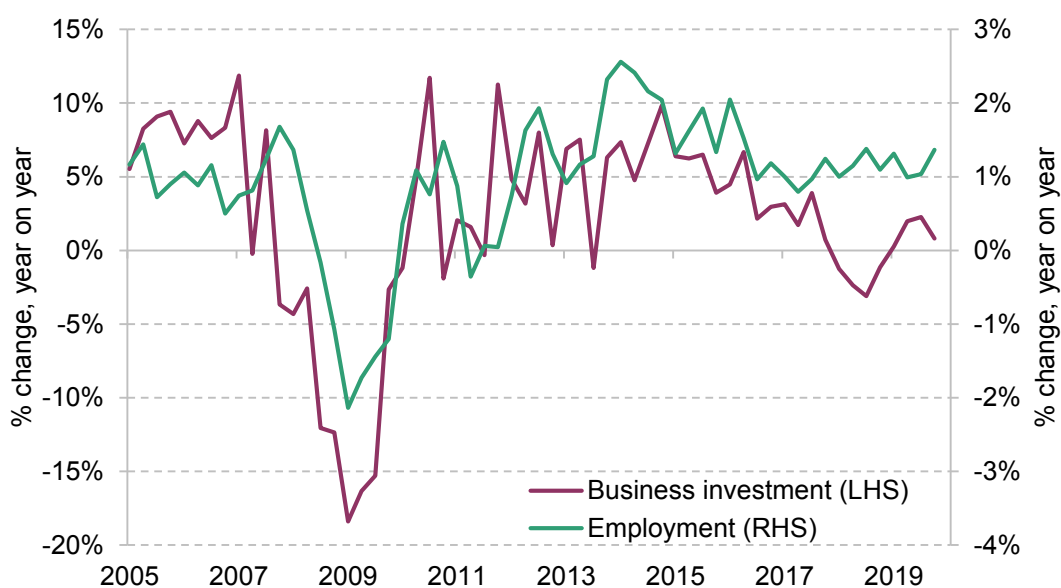
As we noted in last year's Green Budget, high levels of uncertainty have weighed significantly on business investment in the UK since 2016 (Nabarro and Schulz, 2019). These effects have generally been concentrated in some of these tradable sectors – and particularly those at the greatest risk of being adversely affected by Brexit. Data from the Bank of England Decision Maker Panel survey, for example, have shown that weak investment has been concentrated in those areas of the economy that are likely to be more adversely affected by Brexit (Bloom et al., 2019). In this sense, some of the longer-term adjustments in capacity may have begun to materialise (though by no means all).

However, for the near-term outlook, the decision to delay or cancel physical investments in the UK also increases the risk that businesses now respond quickly to the new trading relationship once the transition period has ended. The lack of

spending on physical investment has the effect of loosening the economic ties between firms exporting to the EU and the UK economy itself. If firms maintain significant investments in the UK associated with exports to the EU, they would likely take longer to respond to the new trading relationship – instead seeking to make the most of their existing sunk costs. The fact that firms have now dialled down such investment could mean a more sudden adjustment. For the near-term outlook, this now increases the risk of more sudden divestments.

Some of these risks may be particularly marked for the labour market. In response to higher levels of uncertainty, many of the most-exposed sectors seem to have focused on hiring in lieu of investment (see Figure 3.4). As discussed in last year's Green Budget, there are fewer irreversible costs associated with hiring than with physical investments, so the former is preferable in a context of high uncertainty (Nabarro and Schulz, 2019). But the end result is that some of the sectors that might be most exposed to Brexit-related disruption have been boosting employment over the last few years, leaving more workers potentially exposed to sudden changes as the transition period ends. The UK labour market is likely to be weakened as a result of the pandemic. These dynamics suggest another significant additional risk. We expect unemployment to peak at 8–8.5% in 2021 Q2 (see Chapter 2).

**Figure 3.4. Change in employment and business investment growth (% year on year)**

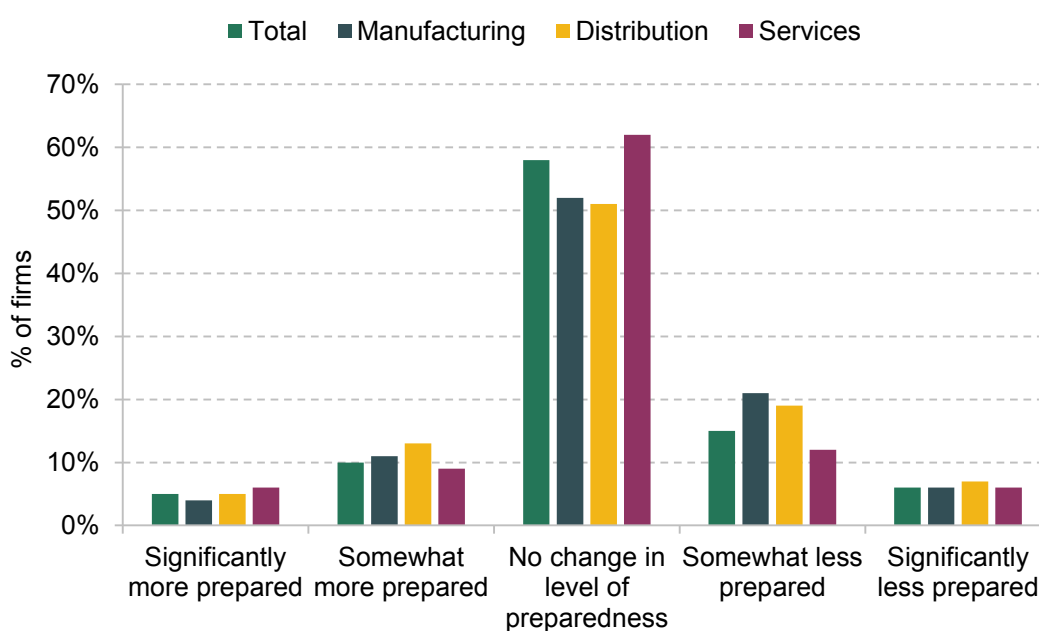


Source: ONS and Citi Research.

## The complication of COVID-19

We think the pandemic is also likely to have weighed on business preparedness, risking greater economic disruption and potentially more firm failures in early 2021. Recent survey evidence, summarised in Figure 3.5, suggests stalling progress on Brexit preparations over 2020 as managerial time and capital have been dedicated towards managing the COVID outbreak. A survey from the Institute of Directors in mid–late June found that only 24% of firms claim that they are fully prepared, 19% saying they are somewhat prepared but intend to do more, and another 45% saying either they remained fully focused on the COVID-19 pandemic for now or planned only to address Brexit once the future relationship was clearer.<sup>5</sup> The Bank of England’s Decision Maker Panel survey also suggests little progress

**Figure 3.5. Firms’ level of Brexit preparedness in summer compared with January 2020**



Note: The CBI’s July surveys were conducted between 25 June and 15 July 2020. 752 businesses responded.

Source: CBI and Citi Research.

<sup>5</sup> <https://www.iod.com/news/news/articles/IoD-figures-on-firms-Brexit-readiness>.

on average over the summer months, likely well behind what might have been hoped given the imminent end of the transition period.<sup>6</sup>

## Forecasts for the economic impacts of Brexit

From here, we expect Brexit to provide something of an economic boost in 2020 Q4. Imports and inventories on both sides of the Channel are likely to pick up as firms stockpile key resources in the run-up to the end of the transition period. In the process, these trends may boost UK industrial production and GDP growth.

However, we expect these effects to prove somewhat more muted this time than they were before the last Brexit deadline in October 2019. For one, inventory levels in the UK are already relatively high – providing some existing protection against trade disruption.<sup>7</sup> The costs of stockpiling are likely to be higher than, for example, in 2019 Q1 or Q3 (before the previous two Brexit deadlines) owing to limited warehouse space in the run-up to Christmas. Dramatic increases in volumes of online shopping in the wake of the pandemic suggest these effects may be even more severe than in 2018 or 2019 (Marshall, Jack and Etherington, 2020). Some EU firms may have also already reconfigured their supply chains away from the UK since 2019, meaning that they will have less of an incentive to stock up on UK goods and so reducing any potential export (and GDP) boost. Finally, Brexit preparations have previously tended to eat into working capital (Bank of England, 2019). In the aftermath of COVID, with revenues depressed and debt elevated, some businesses might now be constrained in their ability to finance higher inventories.

We expect the new barriers between the UK and the EU to subsequently weigh sharply on trade in 2021 Q1.<sup>8</sup> Exports, we think, will likely be more severely

<sup>6</sup> <https://www.bankofengland.co.uk/decision-maker-panel/2020/august-2020>.

<sup>7</sup> CBI's Industrial Trends Survey.

<sup>8</sup> As discussed above, we expect much of the disruption to be felt immediately after the end of the transition period. While the benefits of joining a trading area emerge over roughly a five-year period, we expect the costs of leaving one to be felt much more quickly. Lower trade barriers are a necessary but not sufficient ingredient for higher trade volumes; while firms might be slower to build the new supply chains needed to take advantage of lower trade barriers, higher trade barriers will weigh on their decision-making much more quickly. Our view that the impacts of leaving a trading area are felt more quickly is also consistent with (albeit limited) international evidence, such as the divergence in trading relationships between the UK and New Zealand in 1973. In the UK's case, these effects are compounded by front-loaded costs, lower investment and lower firm resilience – as we discuss above.

affected than imports initially. This primarily reflects the UK's decision temporarily to take a more light-touch approach to customs barriers to imports than the EU. The disproportionate hit to exports is likely to weigh on the trade balance and GDP in 2021, though some of these imbalances may be unwound over subsequent years as UK barriers to imports are gradually implemented. We currently expect net trade to deduct 1.5ppt from growth in 2021, but add 0.6ppt in 2022. These effects come in the context of severely depressed import and export volumes in 2020 (which mean that net trade accounts for a smaller share of GDP). We expect exports and imports to lag their 2018 level respectively by 7.4% and 7.0% below in 2021.

We expect the reduction in export volumes to have two additional impacts on the economy. First, as we noted above, we expect a small but significant hit to employment, and a further hit to consumption. Second, we expect a substantial write-off to capacity specific to EU value chains. We expect this latter effect to be concentrated within the manufacturing and business services sectors in particular. While gross business investment may pick up in 2021, we think a substantial increase in write-offs will mean that net investment (which is what contributes to GDP) will remain relatively subdued. After falling by 16.5% in 2020, we expect business investment to grow by just 4.1% in 2021 before recovering more strongly in 2022 and 2023.

COVID further risks compounding these losses in 2021. While the most severe effects of the pandemic will be felt in different sectors from those most affected by Brexit, no part of the economy has emerged unscathed from COVID (see Chapter 2). With solvency deteriorating, firms are now more vulnerable to additional cash-flow disruption. Alongside lower preparedness (see above), this leaves firms more vulnerable. Those sectors of the economy more exposed to Brexit – such as manufacturing – also tend to have lower levels of cash reserves compared with their usual level of turnover (Saunders, 2020). In 2019, credit conditions also seemed to tighten somewhat among those firms more exposed to the fallout of Brexit (Bank of England, 2019). If repeated, these factors could risk a significant number of firm failures.

All combined, transport, distributed services and manufacturing appear more exposed; as Table 3.2 shows, these sectors have a greater share of EU exports, but lower levels of preparedness and smaller cash buffers. Overall, in the event of a thin trade deal, we expect output in 2021 to be roughly 2.1% below where it would have been if the UK had instead chosen to remain in the Single Market and Customs

Union; even by the end of the forecast horizon (2024 Q4), we expect a substantial gap of 1.4% to remain.

We expect a thin trade deal would push up inflation slightly over the coming years. Around 13% of the CPI basket is imported directly; another 7% is indirectly imported. In the event of a deal, we expect import prices to increase by around

**Table 3.2. Indicators of Brexit exposure by broad sector group**

	<b>GVA share (2017)</b>	<b>% trade with EU (2017)</b>	<b>Rudimentary deal: new barriers (%TfE)</b>	<b>% 'very concerned' about the end of transition</b>	<b>Corporate cash deposits (divided by turnover)</b>
Manufactured goods	9%	49%	8%	36%	3.1
Agri-food	2%	74%	13%	-	-
Non-financial services	60%	51%	10%	35%	3.7
Financial services	7%	38%	13%	-	-
Networks	8%	49%	7%	26%	1.7
Dwellings	14%	-	-	-	-
<b>Total</b>		<b>50%</b>	<b>9%</b>		

Note: '% "very concerned" about the end of transition' taken from CBI survey of non-financial firms (conducted 25 June and 15 July; n=752). 'New barriers' reflect Citi estimates of non-tariff barriers in the event of a rudimentary deal – expressed in 'tariff equivalent' terms (see Table 3.1). 'Corporate cash deposits (divided by turnover)' taken from Saunders (2020). Transport is included in non-financial services.

Source: CBI, ONS, Saunders (2020) and Citi Research.

3.5% over 2021.<sup>9</sup> Traditional rules of thumb would imply inflation (as measured by the Consumer Prices Index, CPI) to increase by around 1–1.5% cumulatively over the subsequent three years.

### The additional costs of a ‘no-deal’ Brexit

As we noted above, we think most of the direct economic costs associated with Brexit are likely to materialise whether the UK leaves with a thin trade deal or with no deal at all. But leaving the EU without any deal at all would still impose additional costs, mostly via sentiment. For the economy as a whole, additional uncertainty and expectations of a more acrimonious medium-term UK–EU relationship would both likely weigh. A no-deal exit could also impose substantial additional direct costs in some sectors too. For example, the automotive manufacturing sector would likely face much higher tariffs under no-deal than it would even with a thin trade agreement. Some additional non-tariff barriers with respect to financial equivalence or data adequacy (for example) would also be likely to weigh on output. These effects could amount to 0.5–1.0% of GDP. In this scenario, food and goods inflation could increase more sharply in 2021 owing to more acute border disruption. However, the larger impact in this scenario would likely be via additional sterling depreciation.

## 3.3 Scarring and the outlook in the medium term

The long-term outlook in the wake of both COVID and Brexit depends both on how different the new economic ‘normal’ looks from the prior one, and on how easily the UK economy can adjust to it. In recent decades, the UK’s economic institutions have shown themselves to be somewhat nimbler than those in some continental European countries – especially within the labour market (Broadbent, 2012). However, the UK now faces a unique ‘double whammy’ of structural changes in the form of both COVID and Brexit. A period of sizeable economic adjustment is likely to follow. Chapter 2 sets out that this implies a weaker near-term recovery. However, below we explain that this is also likely to imply a lower level of output

<sup>9</sup> This is based on a 10.7% increase in costs of exporting into the UK, which applies to 50% of all imports. We assume that 60–70% of this is then passed through over 12 months.

in the longer term. A more protracted adjustment process risks compounding the impact, with additional adverse labour market consequences.

### COVID and Brexit: the cost of adjustment

We currently expect output in 2024 to lag the OBR's March 2020 trajectory by 4.5% in the fiscal year 2024–25. This reflects more permanent changes in the structure of the UK economy owing to the impact of both COVID (–3.2ppt) and Brexit (–1.3ppt). This is considerably larger than the 1.5% impact forecast by the Bank of England. This primarily reflects differing assessments of the scale and costs associated with economic reconfiguration in the aftermath of both shocks.

The key drivers behind our more pessimistic forecast are a greater number of firm bankruptcies and the associated write-down of capacity. Here, there are two sets of factors at play:

- A prolonged period of elevated virus concerns will see many firms go out of business (especially within the UK consumer services sector). This will have longer-term effects as their 'firm-specific capital' (for example, specific machines, trained workers or branding) cannot be easily repurposed.
- Persistent economic reconfiguration associated with both COVID and Brexit will also see some sectors and geographies hit hard. This in turn will reduce the economic value of the skills and capital specific to that sector or location, also weighing on long-term capacity.

In both cases, we expect both COVID and Brexit to play a notable role. As we noted above, the impact of COVID on both demand and costs is highly asymmetric, with the impact disproportionately falling on the consumer services sector. Over the coming months, we expect this to result in a substantial number of failures among firms that, absent the virus, would have remained viable. Firms in these sectors often contain a relatively large share of so-called 'intangible capital' in comparison with their total asset base – though not as large as some other sectors (for example, ICT).<sup>10</sup> This capital tends to be inherently firm-specific – for example, buyer–supplier relationships, brands and so on (Haskel and Westlake, 2017). This means that much of this capacity will be lost when firms go out of business. While we expect that bankruptcies will hit the least productive firms the hardest, overall these

<sup>10</sup> See Corrado et al. (2016) and INTAN-Invest data.

changes are still likely to weigh on long-run capacity (Andrews, Adalet McGowan and Millot, 2017).

Even after the direct impact of the virus has died down, some of the behavioural changes developed during lockdown may also likely persist, implying a permanent shock to preferences and economic structure. This may prove partly geographical as well as sectoral (see Chapter 7), with more economic activity moving out of major urban agglomerations in the UK. Already, over the summer, it is striking how many households seem to have chosen to move out of major cities.<sup>11</sup> Given the fixed costs involved in moving home, this implies a persistent underlying shift in preferences. A shift to working from home and the related changes in consumer services demand would also imply an associated change in where (as well as what) capacity is needed. Recent data from the Institute of Directors suggest half of all firms are intending to shift further towards home working on a more permanent basis.<sup>12</sup> This could see some existing types of capital – for example, a shop or cafe in central London – being written down. These trends seem unlikely to reverse fully even after a vaccine is available. We think this will drive the write-down of some associated capacity, weighing on output in the longer term (Kozlowski, Veldkamp and Venkateswaran, 2020).

As in the case of COVID, Brexit is also likely to require substantial economic reconfiguration. Growth in the UK in recent decades has, in large part, been driven by the cultivation of comparative advantages in areas such as business services and finance. Given the close geographic proximity and the size of the EU, membership and development of EU institutions has played an important part in this process. The UK has developed a large surplus in services with the bloc, alongside a large goods deficit. With the UK set to leave both the Single Market and the Customs Union at the end of 2020, some of these developments will now likely go into reverse. This also likely implies write-downs to associated capacity.

The question for capacity is twofold. First, to what degree can trade currently with the EU be diverted to other jurisdictions? Here we think possibilities are very limited. Much of the additional trade between the UK and Europe caused by

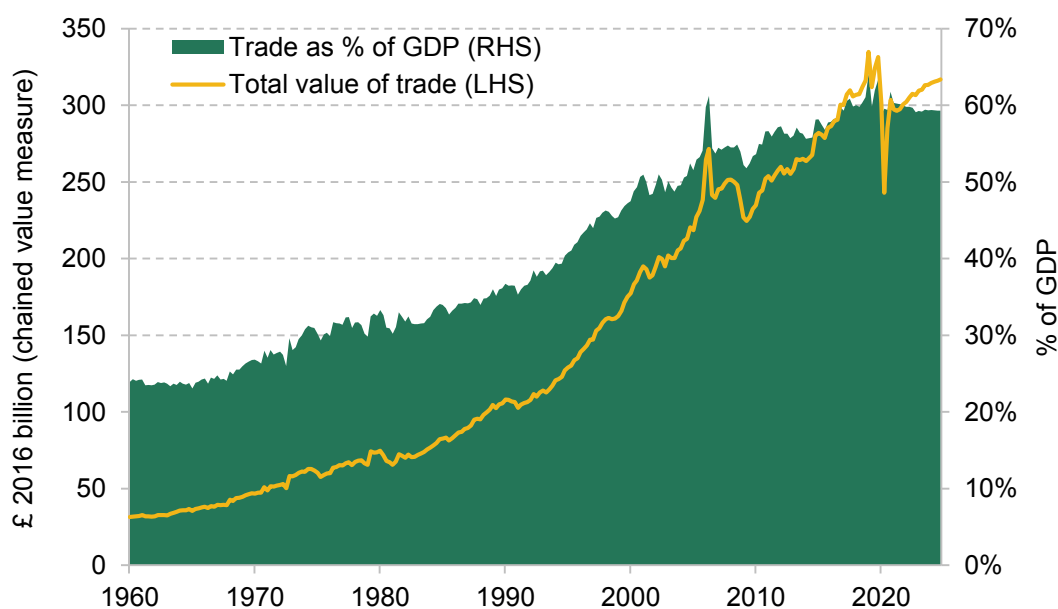
<sup>11</sup> A range of soft data has indicated very robust demand for larger homes outside of major urban agglomerations. See the RICS Residential Market Survey, August 2020.

<sup>12</sup> <https://www.iod.com/news/news/articles/Home-working-here-to-stay-new-IoD-figures-suggest>.

membership of the EU is likely to be relatively specific to the two partners. Within the manufacturing sector, for example, this reflects close integration with transnational value chains. Services are generally excluded from conventional trade agreements (the EU Single Market is a notable exception). This suggests only limited opportunities to redirect existing exports elsewhere, even if the UK succeeds in striking trade agreements with countries further afield. Instead, we expect aggregate trade to lag for some time to come (see Figure 3.6).

If trade losses cannot be prevented, the second question is how much of the associated capacity can be re-applied within the domestic economy. Trade tends to boost productivity by facilitating economies of both scale and scope. Usually this would mean that, even if this capital can be re-applied, its productivity would be lower. Estimates of the impact of trade on productivity levels range from 0.16–0.25 (based on the closure of the Suez Canal between 1967 and 1975; Feyrer, 2009) to 0.42–0.6 (Feyrer, 2019) to 0.74 (Felbermayr and Groeschl, 2013) – based on recent natural disasters. These suggest that a 1% drop in trade implies anything between a 0.16% and a 0.74% drop in national income per head. These are big effects, and estimates that are more recent tend to be somewhat larger.

**Figure 3.6. Real UK trade (adjusted for the export of non-monetary gold)**



Note: Non-monetary gold is excluded from these data, as trade in this is overall neutral for GDP.

Source: ONS and Citi Research.

In our forecast, we assume a relatively low elasticity of 0.25 – for every 1% drop in trade, GDP per capita falls by 0.25%. However, some write-offs to firm- and sector-specific capital are likely in the face of the current shock. More rapid adjustments and higher rates of firm failures increase these risks. The risks may therefore be skewed towards larger write-downs.

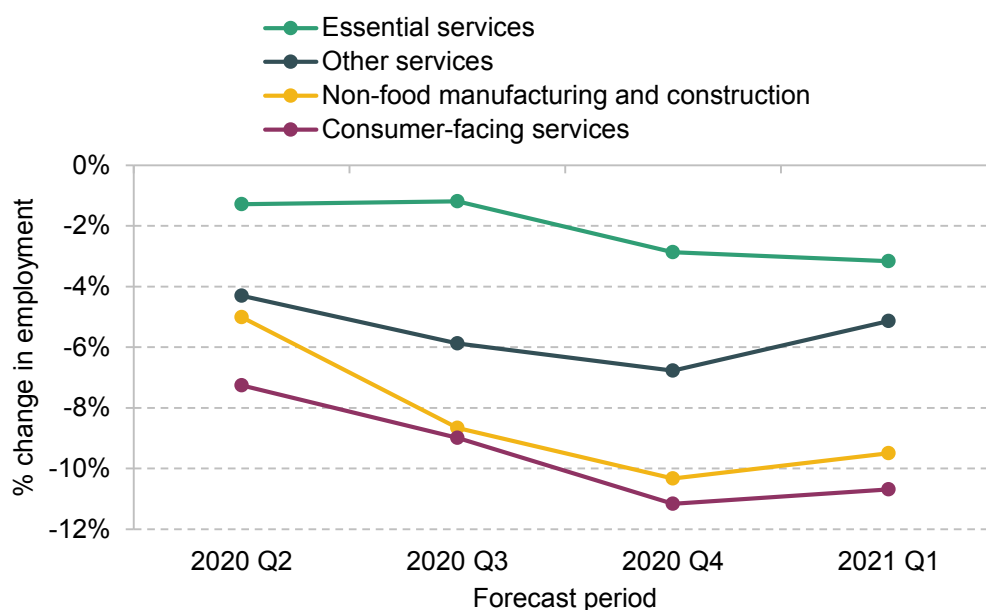
### Labour market scarring

While our central forecast is more pessimistic than others, there remain real risks that the outcome for the economy could be yet worse, if there are significant long-run impacts ('scarring') on the labour market.

Broadly, there are two forms of economic scarring associated with higher unemployment. The first is the loss of so-called 'matching capital' associated with specific relationships between workers and employers (Quintini and Venn, 2013). This is precisely what the Coronavirus Job Retention Scheme was designed to prevent. Losing this capital by being made unemployed has significant impacts on longer-term earnings – typical estimates suggest that workers who are made unemployed are 6–9% less likely to be in work in the longer term, and have wages 8–10% lower than they would otherwise have had even if they find another job (Tumino, 2015). Importantly, these effects seem to apply even if workers are unemployed for a short period. As we noted in Chapter 2, we expect significant numbers of workers to face unemployment over the coming years, implying substantial losses here.

A second form of scarring is losses resulting from the erosion of human capital as workers spend time out of paid work (Blanchard and Summers, 1986). Here too the effect can be significant, with a longer period of unemployment both reducing the chance of finding subsequent employment and reducing bargaining power for workers who do succeed in finding a job (Krueger, Cramer and Cho, 2014). Substantial economic reconfiguration increases the risk of such effects, as workers who become unemployed may find it takes longer to find a new job (or they might need to switch into a different sector or occupation entirely, also making the on-the-job skills they have built up less valuable).

As we noted in Chapter 2, high uncertainty and low aggregate demand already risk a more protracted period of weak labour demand and high unemployment. Recent survey data suggest all sectors are now planning to reduce the size of the workforce (see Figure 3.7).

**Figure 3.7. Expected impact of COVID-19 on workforce size, July 2020**

Note: Answer to the question ‘Relative to what would have otherwise happened, what is your best estimate for the impact of the spread of coronavirus (COVID-19) on the employment of your business?’. Responses were collected from 3 to 17 July 2020.

Source: Bank of England Decision Maker Panel, Bank of England and Citi Research.

Sectoral reconfiguration adds to these headwinds to employment. Firms will need time to build up an understanding of what kinds of workers their new business model demands. Sectoral patterns in the recovery to date also imply a skew towards more capital-intensive sectors and potentially a slower recovery in labour demand as a result.

Nominal wage rigidities also risk weighing on labour demand on a more persistent basis. Increases in the National Living Wage – to which the government committed prior to the pandemic – and lower inflation both constitute challenges here as they could make downward adjustment more difficult. This could pose a particular challenge in the recovery from COVID and Brexit, for two reasons:

- First, reallocating workers across sectors often results in the loss of human capital and lower labour productivity, adding to labour costs. If wages are restricted in how much they can fall – for example, as a result of large increases in the minimum wage – this could cause a sharper rise in unemployment and substantially slow the recovery.

- Second, greater exposure of low-skilled workers to the current crisis makes it impossible for workers to move down the skill and pay spectrum in order to find a job, as has historically often been able to happen (Moscarini and Postel-Vinay, 2016). For many of those made unemployed because of COVID in particular, this increases the risk of a more lasting period out of work unless wages can adjust downward. Similarly, with respect to Brexit, many workers in more-at-risk sectors have few formal qualifications (though often high firm- and sector-specific skills), again making it more difficult for them to find similarly paid and skilled work in a different industry (see Levell and Norris Keiller (2018)).

The potential for extensive skill and geographical mismatches compounds the risks here. This could complicate labour market reconfiguration. Many of the sectors worst affected by the economic impacts of COVID are those that non-graduates would typically move into at the start of their careers (Henehan, 2020). These workers may, at least initially, be poor matches for those new jobs that materialise. The current crisis may also result in a slower recovery in activity in the UK's major cities. This may engender a geographical mismatch, as well as a sectoral and skills-based one. Both effects could increase the medium-term equilibrium rate of unemployment (formally known as the non-accelerating inflation rate of unemployment, or NAIRU) (Sahin et al., 2014).

In our forecasts, we assume some increase in NAIRU, but only a 0.3ppt increase in the longer-term rate (and no change in labour force participation). If the adverse labour market shock proves longer lasting, this would prove too optimistic (Krueger, Cramer and Cho, 2014). These issues suggest active labour market policies, such as the new Kickstart Scheme for those aged under 25, may have an important role to play in preventing more-lasting damage.

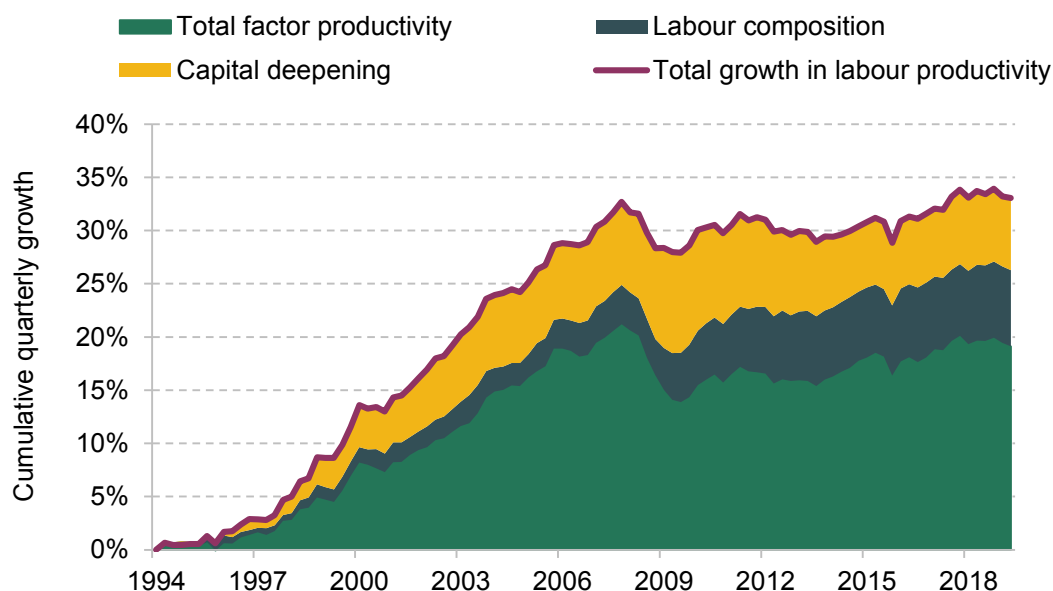
### 3.4 In search of a new business model: risks to potential growth

With the near-term economic outlook already relatively uncertain, it is difficult at this stage to make any hard and fast predictions to quantify the potential impact of COVID and Brexit in the longer term. Among other things, outcomes here will be primarily shaped by policy choices. However, we think both COVID and Brexit do pose some important challenges. As we noted above, lower levels of trade and

reconfiguration are both likely to weigh on the level of output. Over the coming years, this alone implies lower growth rates. However, even in the longer term (5–15 years ahead), we think both shocks could have a notable impact on growth.

Productivity growth has been a notable weakness for the UK economy in the years since the financial crisis (Melolinna, 2020). Having grown relatively strongly in the early years of the new millennium, output per hour has essentially stalled since 2008 (see Figure 3.8). Labour productivity is now around 20% below its pre-financial crisis trend, a feat unprecedented in 250 years of UK history (Crafts and Mills, 2020). This primarily reflects a break in the rate of growth of total factor productivity (which measures economic efficiency). Growth here may have been somewhat inflated before the crisis by the financial sector (Bean, 2016). However, we think this reflects a slowdown in more substantive productivity-enhancing trends such as worker upskilling and lower trade curtailing growth among the UK's most productive firms (Henehan, 2019; Schneider, 2018).

**Figure 3.8. Cumulative quarterly growth of labour productivity and its components, UK market sector**



Note: Labour productivity growth is the cumulative quarter-on-quarter log change in market sector gross value added (GVA) per hour worked.

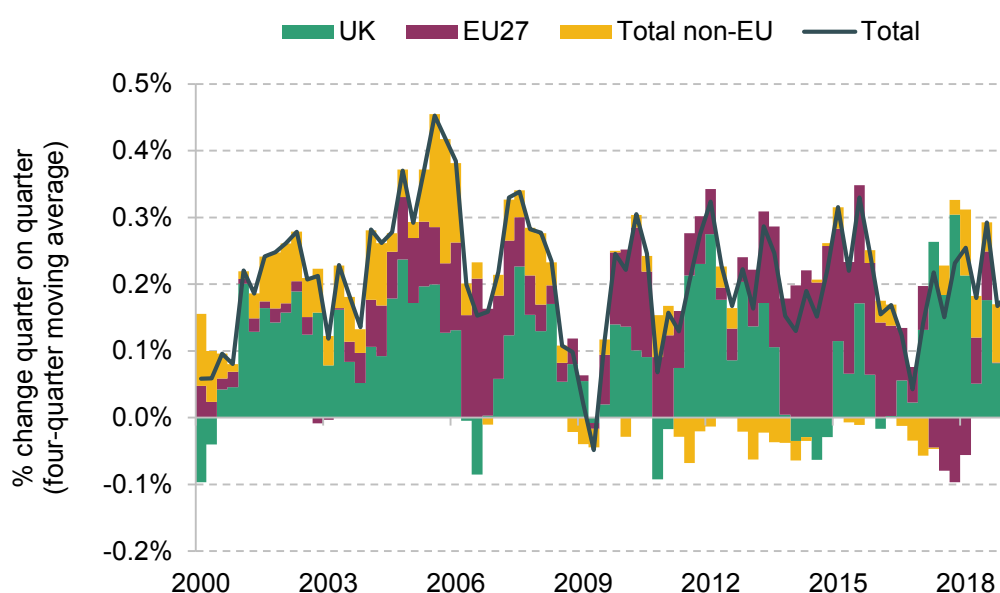
Source: ONS and Citi Research.

The slowdown in productivity growth means the UK has become increasingly dependent on increases in aggregate hours worked for so-called ‘potential growth’ – this is growth in economic capacity. Between 1990 and 2007, annual real GDP growth averaged 2.5%. Of this, 0.15ppt was the result of increased labour supply, while 2.35ppt was the result of higher productivity per hour worked. Since 2010, annual growth has averaged 1.9%, but over half of this is attributable to a rise in total hours worked. In other words, the majority of the UK’s growth is now coming from more workers (and some working longer), rather than greater productivity.

Over the coming years, the economic slowdown is likely to result in substantial labour market slack, meaning any reduction in labour supply is unlikely to affect output immediately. However, further ahead, reductions in labour supply could have a significant impact on potential growth.

More workers, rather than greater average hours, have driven the majority of the increase in labour supply in recent years. Between 2010 and 2019, EU migrants (who make up 7% of the economically active population) have driven roughly half of the total increase in the number of workers, while immigration from outside the EU has contributed relatively little (roughly 5% of the total) – see Figure 3.9. In this

**Figure 3.9. Growth in economically active population by nationality**



Source: ONS and Citi Research.

context, Brexit is a notable risk. The UK could of course offset any decline in migration from the EU by encouraging immigration from elsewhere. However, the government appears focused on reducing immigration (with a particular focus on immigrants with fewer formal qualifications).<sup>13</sup> If this becomes a more lasting feature of the UK economy, this could imply lower potential growth to come.

Brexit and COVID also pose some important downside risks to longer-term productivity growth. Foreign direct investment (FDI) has fallen sharply in the UK in the wake of the 2016 referendum, following a wave of foreign acquisitions in later 2016. While estimates vary, most expect this fall to prove persistent; for example, Dhingra et al. (2016) estimate Brexit could result in a 22% fall over the coming decade. FDI is generally thought to contribute to productivity by facilitating knowledge spillovers and subsequent improvements to both production and management practices. The ONS has shown that the productivity at the average UK firm involved in FDI activities was around three times higher than among those firms that were not (Office for National Statistics, 2017). Others find more direct evidence of a causal link (Alfaro et al., 2004; Haskel, Pereira and Slaughter, 2007; Alfaro et al., 2010). A reduction in the level of FDI could therefore imply more persistent reductions in the rate of productivity growth in the years to come.

With respect to COVID, longer-term damage to agglomeration economies could also pose downside risks. Agglomeration effects within cities such as London, Manchester and Birmingham have also made a disproportionate contribution to national UK productivity growth in recent years, especially in the period before the current crisis. Part of the story is the increase in the level of output as more workers and firms have moved into more productive cities. The reversal of some of these effects over the coming years could contribute to a lower level of GDP, as we noted above. However, there may be more-lasting impacts on the level of GDP growth too – for example, because of reductions in the scope for intensive competition and knowledge spillovers when firms and workers are living further apart (Palivos and Wang, 1996; Baldwin and Martin, 2004). This, again, may weigh on long-term growth.

<sup>13</sup> On 19 February 2020, the Home Office published a detailed plan of its post-Brexit, ‘points-based’ immigration plans. The new regime requires migrants to speak English, have a job offer from an approved sponsor, and meet skills and salary thresholds. These are designed to reduce overall immigration numbers overall, especially among less-skilled groups.

In recent years, the UK has harnessed a relatively open and urbanised economic model to drive growth. Alongside the substantial one-off reduction in productivity, these effects imply the UK may now also have to look elsewhere. At the moment, it is not obvious where such growth is likely to come from. This is one area where policy to identify and support institutions that can help to generate growth could have genuinely big benefits – but only if it is done well.

### 3.5 Policy coordination, inflation and implications for fiscal space

Monetary and fiscal policy have worked ‘hand in glove’ since the beginning of the COVID-19 pandemic. Both have had to adjust to a crisis unprecedented in both character and scale. Each has also been forced to innovate owing to limited conventional monetary policy space. Fiscal policy has subsequently carried the primary burden of macroeconomic stabilisation (Nabarro, 2020). The primary effect of monetary support has instead been to restrain funding costs and prevent crowding-out effects. This has boosted the efficacy of fiscal space by ameliorating some of its adverse consequences.

COVID and Brexit constitute adverse shocks to both supply and demand, but in both cases we think the demand-side shock seems likely to be both larger and more persistent over the coming years. The implication is that monetary policy is incentivised by its mandate to provide as much support as possible to close the output gap and return inflation to target. In the current context, this means keeping interest rates low and keeping credit conditions as accommodative as possible for both the government and the wider economy.

For now, monetary policy therefore dovetails relatively well with the government’s approach to fiscal policy. We do not expect this to change substantially anytime soon. But, in the medium term, this complementarity cannot be assumed. The Bank of England could be forced to take a less accommodative stance, in response to either a jump in inflation expectations or difficulties in the UK’s external account. Either event carries risks for the wider economy, pushing up the government’s cost of borrowing and potentially making it more difficult to provide further fiscal support.

Re-anchoring fiscal policy in the aftermath of this crisis (by bringing down the deficit) must be a priority in the medium term. With monetary policy now likely to remain constrained for some time to come, once this crisis has abated it will be even more essential to ensure some fiscal space remains available for when the next crisis arrives. With the UK also dependent on foreign capital, this is likely to be key to ensuring monetary policy can play the same supporting role in future as in 2020.

### Monetary and fiscal policy: working in tandem

Fiscal policy has been at the forefront of the policy response to the COVID-19 crisis in the UK (as in other jurisdictions – see Chapter 1). The UK government is set to borrow more in the current fiscal year than at any stage outside of world wars. UK public borrowing (excluding public sector banks) has totalled £128 billion in the fiscal year to date (6.2% of annual GDP), over five times more than the same period in 2019 and three times larger than any other three-month period on record. As set out in Chapter 4, under the central scenario prepared by Citi for this Green Budget, IFS researchers forecast that government borrowing in 2020–21 will climb to 17.1% of national income.

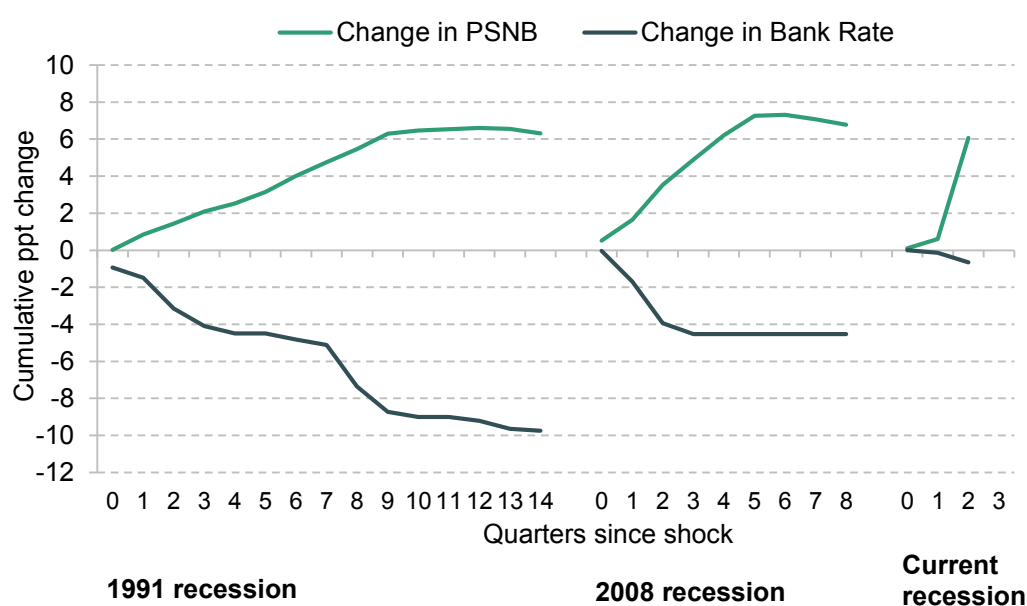
The primacy of fiscal policy reflects first the character of the current crisis. Whereas the 2008–09 recession was a financial crisis, COVID (aside from the public health challenges) is primarily an economic one. The sectorally asymmetric character of the current shock also means fiscal policy is better placed to provide the kinds of targeted support measures that are necessary (Guerrieri et al., 2020). Given substantial reconfiguration that is likely necessary over the coming years, policy has to both facilitate reconfiguration and support demand. Targeted fiscal support is better able to achieve this than monetary policy.

However, greater fiscal support to date also reflects the limited monetary policy space available going into the crisis (see Figure 2.10). Speaking at the start of the year, former Bank of England Governor Mark Carney commented that a ‘reasonable judgement’ of total policy space was around 250 basis points (bps) (Carney, 2020). This is significantly less than the ~450bps of Bank Rate cuts during the financial crisis. The Wu–Xia shadow policy rate offers a more direct comparison, summarising the combined impact of rate cuts and asset purchases (Wu and Xia, 2015). This has fallen by roughly 250–300bps in recent months. However, the scope for this to fall further seems increasingly limited. During the

financial crisis, this measure fell by 1,200bps between December 2007 and May 2013.

Rather than monetary policy stepping back, we prefer to think of recent policy as a form of implicit monetary and fiscal policy coordination. Monetary policy has been highly active since the start of the COVID-19 outbreak, with 65bps of rate cuts and £290 billion of quantitative easing. However, the aim of policy has increasingly shifted from trying to push borrowing costs down further to instead trying to ensure these remain low, and crucially remain so for some time to come. By ensuring stable long-term (and sometimes riskier) borrowing costs, this should stimulate the economy, but also facilitate support elsewhere – in particular, via fiscal policy. This consists primarily of keeping the government ‘yield curve’ as flat as possible

**Figure 3.10. Cumulative changes in the UK Bank Rate and public sector net borrowing over the last three recessions**



Note: Quarter 0 denotes the period two quarters before the beginning of the recession. Public sector net borrowing (PSNB) excluding financial interventions and public sector banks is used here. This is expressed as a four-quarter average as a percentage of nominal GDP. Cumulative change in PSNB is the percentage point change in borrowing since the beginning of the downturn (as a percentage of GDP). Cumulative change in Bank Rate is the percentage point change in the policy rate since the beginning of the downturn.

Source: Bank of England, ONS and Citi Research.

despite significant increases in borrowing.<sup>14</sup> Combined Bank of England purchases so far this calendar year have therefore amounted to 95% of net issuance, meaning government bond markets have, in effect, been fully insulated from the costs of COVID so far (see Chapter 5). This has allowed a dramatic fiscal expansion, without any associated increases in either government or aggregate borrowing costs (which, by contrast, have fallen to historical lows).

Monetary policy support is conditional on low inflation. In the near term, domestically generated inflation is likely to soften (see Chapter 2). In response to low inflation and high levels of spare capacity in the economy, monetary policy should remain loose for some time to come. This will have the side effect of helping to ensure that the government can continue to borrow substantial sums at low rates of interest. However, weakness in the economy also means that if fiscal policy is dialled down, monetary policy may be forced to take a more proactive stance. With the government yield curve now very flat, this is likely to force the Bank to look at further cuts to Bank Rate.

Historically, the Bank of England has been relatively unwilling to entertain rate cuts to zero or below. The key issue is that, while banks are largely forced to pass on the reduction to creditors, they are unable to compensate by charging lower interest rates on customers' deposits (since customers can simply withdraw their money). The implication is compressed net interest margins, lower bank profitability and (in some cases) weaker credit supply. However, we think some of these constraints may now be less binding than in previous eras (see Box 3.1) – the Monetary Policy Committee (MPC) has consistently emphasised that the 'effective lower bound' (the floor on interest rates) is a moving target. In more recent meetings, it has noted further rate cuts are now 'in the toolkit'.<sup>15</sup> We expect that cuts into negative territory are likely in 2021, given the weak cyclical outlook (see Chapter 2).

<sup>14</sup> In March, the Monetary Policy Committee announced a £200 billion package, 95% of which seems to have been allocated towards gilts. Since then – in June – this has been complemented by an additional £100 billion purchase of gilts.

<sup>15</sup> See paragraph 52 of <https://www.bankofengland.co.uk/-/media/boe/files/monetary-policy-summary-and-minutes/2020/september-2020.pdf>.

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**Box 3.1. Are constraints on negative rates easing?**

There are several indications that negative interest rates would now pose less of a risk for parts of the financial system than might have been the case previously. For example, in 2013 Sir Charlie Bean (then Deputy Governor for Monetary Policy, now member of the Budget Responsibility Committee of the OBR) argued that such a policy risked widespread collapse among building societies and mortgage lenders, who would largely be forced to pass on the savings to their borrowers, but could not pass it on to their depositors (Bean, 2013). Since then, the widespread increase in the use of fixed-rate mortgages has reduced the exposure on this front. In the long term, this does not alleviate the issue entirely, but does suggest a more protracted impact, providing time to find alternative solutions.

The outstanding challenge for the UK is the relatively large share of retail deposits in bank funding. Most of the evidence in other jurisdictions suggests it is incredibly hard to pass on negative rates to retail depositors. As such, this tends to worsen the impact of negative rates on bank profitability. We think many of these issues are tractable – at least with respect to a small rate cut. Costs here could be at least offset by a relatively generous tiering regime – meaning banks are not forced to incur losses on these assets deposited at the central bank. As in other jurisdictions, we think this could allow further cuts to interest rates without undermining credit supply. Over the coming years, rate cuts could actually provide a net benefit to bank profitability by reducing the rate of loan impairments, as in the ECB’s experience (Rostagno et al., 2019).

Within the banking sector itself, some of the largest risks are likely among smaller banks who are (1) less able to absorb losses in general and (2) have a high density of more conventional retail activity (particularly retail deposits and mortgage lending). Vulnerability in this part of the sector could be an important indicator of whether the Bank chooses to go ahead with further cuts.

Note: For more information, see Schulz and Nabarro (2020).

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A cut in Bank Rate to, say, –10bps will not likely drive a widespread boost across the economy as a whole on its own: after all, it would only represent a 20bps cut from the current level. A significantly larger cut would risk financial instability, and likely prove self-defeating. The UK will therefore remain primarily dependent on

fiscal policy for some time. The important thing is that the Bank of England is likely to ensure low borrowing costs for as long as weak inflation and spare capacity persist. This should ensure sufficient fiscal space to do more over the coming months. With monetary policy constrained, if fiscal policy is withdrawn too soon, this risks a much more prolonged period of weak demand and weak inflation.

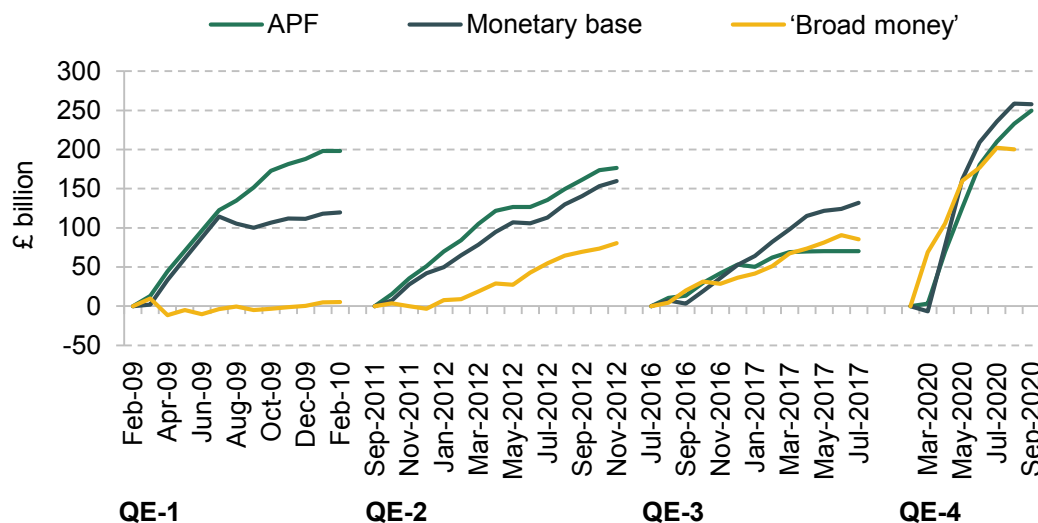
### Medium-term inflation: two-way risk

While inflation is likely to remain relatively contained in the near term, in the medium term this is less assured. Upward pressure on inflation risks the withdrawal of monetary policy support and (in the absence of growth) increasing the cost of additional fiscal support. We see three risks here.

First, changes in the UK's external relationships may impart an inflationary bias over the coming years. As discussed above, the UK has developed comparative advantages based on the export of business services and the import of consumer goods (Schulz, 2018). To the degree that both Brexit and broader de-globalisation contribute to an unwinding of these trends, this is likely to put upward pressure on consumer prices. Sterling depreciation could also compound these effects in the near term; pass-through from these effects could be particularly quick given the character of the Brexit shock – as was the case in 2016–17 (Forbes, Hjortsoe and Nenova, 2018). However, the MPC has also previously shown it is able to look past some of these transitory effects.

Second, in comparison with previous periods of 'quantitative easing', recent asset purchases in the UK have substantially increased the quantity of broad money (which includes both cash and bank deposits). Theoretically, an increase in the money supply should result in higher inflation (the quantity theory of money states that the general price level is proportionate to the amount of money in circulation). However, this relationship has ceased to be a good guide to inflation dynamics over the last four decades (McLeay, Radia and Thomas, 2014; Castillo-Martinez and Reis, 2019). One reason, during the 2008 crisis, is that increases in so-called 'base money' did not translate into increases in 'broad money' – namely, that available to the economy as a whole. However, during the current crisis, broad money has actually increased significantly (see Figure 3.11). Empirically, broad money growth has maintained a loose relationship with realised inflation in the UK (King, 2002). This at least increases the potential that a higher money supply could start to drive inflation higher.

**Figure 3.11. Asset Purchase Facility purchases, base money and broad money growth in respective quantitative easing (QE) rounds, UK**



Note: Monetary base is calculated by summing notes and coins in circulation and the reserve balances of banks and building societies. 'Broad money' is M4 excluding intermediate other financial corporations.

Source: Bank of England, Haver Analytics and Citi Research.

However, on its own, we do not think this will be enough to substantially move the dial on inflation. Other determinants of so-called 'money velocity' (the speed at which money circulates in the economy via transactions) remain too unstable to make any concrete predictions based solely on the quantity of base money. However, these factors do suggest that if inflation expectations – for example – were to shift, the subsequent acceleration in inflation could prove even more dramatic, forcing a more abrupt monetary policy response. So while this sort of sudden response is not likely in our view, it nevertheless represents a risk.

Third, upside risks to domestic inflation expectations could also force the Bank to react by tightening monetary policy sooner than might otherwise be expected. Over the coming months and years, we think this could prove the largest upside risk to inflation. In recent months, near-term household price expectations have increased significantly, alongside an increase in greater medium-term uncertainty. In our own household inflation survey (conducted in conjunction with YouGov),<sup>16</sup> both the

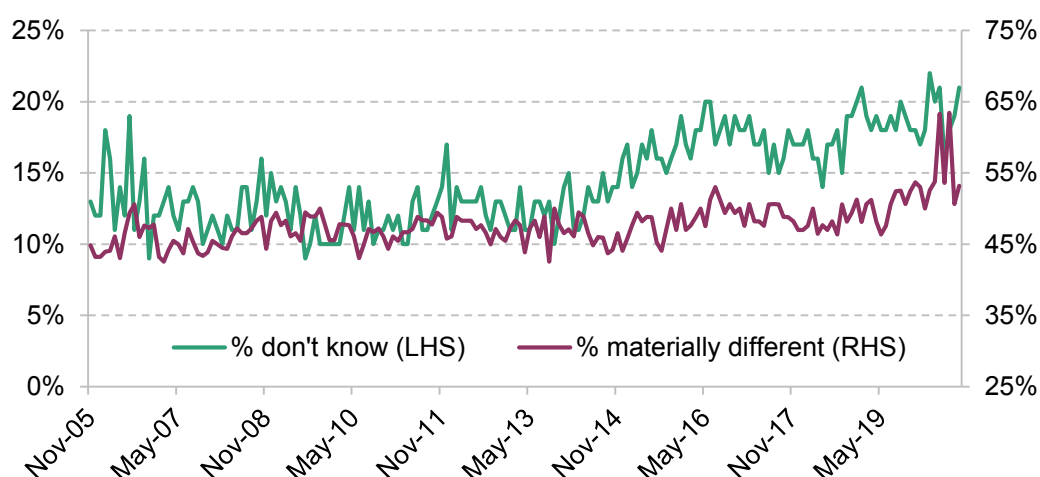
<sup>16</sup> This survey is conducted using an online survey administered monthly to roughly 2,000 people randomly selected from YouGov's 185,000+ survey panel. See [Alert: UK Economics Flash - Citi/YouGov Inflation Tracker: A significant increase in long-term inflation expectations](#).

proportion of respondents responding they ‘did not know’ with respect to long-term inflation, and those expecting an outcome materially different from current levels, have jumped since March (see Figure 3.12). We think this primarily reflects disruption to household consumption patterns during the pandemic. However, to the degree this chips away at established price expectations, expectations may now be more vulnerable to any further price shocks.

Reconfiguration implies some prices will go up as well as down. We also know not all prices are equal as far as inflation expectations are concerned. For example, petrol prices have historically been thought to be particularly salient for inflation expectations, since consumers can quite easily compare prices of the same product over time. Across UK consumption baskets, goods inflation could also prove relatively more influential. In the wake of both COVID and Brexit, there is a risk price growth here could accelerate, even as demand and price pressures overall remain subdued. As such, it is possible inflation expectations could increase on a more sustained basis.

Rising inflation expectations alone would risk driving higher actual inflation. The Bank may therefore likely have to react by tightening monetary policy. However, to the degree this also reflected de-anchored expectations, this would also force the

**Figure 3.12. Share of respondents expecting a substantial change to long-run inflation**



Note: ‘Materially different’ measures the proportion of respondents who expect long-run inflation either below 2% or above 5%. The 2005–19 mean of this measure is 47%.

Source: YouGov and Citi Research.

MPC to react more forcefully to other transitory increases in inflation – such as those resulting from sterling depreciation. For now, we still think inflation expectations in the UK remain well anchored across households, firms and markets at target consistent levels. But recent volatility creates risks.

Credible inflation targeting is fundamentally a question of political will. If the Bank (and the government along with it) are clear that they are willing in the short run to sacrifice employment and growth for price stability, then inflation expectations are more likely to remain at target levels. The issue here is that this trade-off may no longer be as obvious (at least with respect to higher inflation) as may have been the case historically. In particular, there may be doubts regarding government commitment to price stability. The Bank of England's mandate is under the control of the Treasury, rather than the MPC. If inflation were to increase ahead of the recovery, the government could therefore choose to ease the trade-off by requiring the Bank to adopt a more accommodative approach. We do not see this as likely, but even the risk could affect inflation expectations. This could force the Bank to clamp down harder in an attempt to reaffirm the target.

As discussed in Chapter 5, this implies the potential for conflict with fiscal policy. This could be eased by forcing the Bank to adopt a new approach, such as average inflation targeting (which has now been adopted by the Federal Reserve in the United States). However, given the points above, it is clear such a move carries enormous risks. Even if it is a sensible change, unless it is communicated with exceptional care there is a risk that it will be misinterpreted as a weakening of central bank independence motivated by a desire to help the public finances. This could feed back into inflation expectations, and so prove self-defeating.

### Risks for fiscal space in the longer term

Macroeconomically, the UK economy is likely to depend disproportionately on fiscal policy over the coming decade. Policy rates are likely to remain close to their lower bound for some time to come. This means fiscal policy will likely have to bear the brunt of new-found adverse shocks. Larger increases in borrowing in the event of future downturns are therefore both likely and desirable.

However, as in the recent crisis, fiscal support is likely to prove more effective if it can go hand in hand with monetary accommodation. The question, in the longer term, is how sustainable combined fiscal and monetary interventions (of the type

seen in 2020) are likely to prove. We think the answer will depend primarily on fiscal policy and specifically whether this can return to a more sustainable trajectory. Not only will this directly protect fiscal space but also, in the process, we think it also ensures monetary policy is able to respond to future crises in a supportive fashion.

The key here is the financial role gilts play in a downturn or crisis. In such conditions, as capital seeks risk-free assets, money tends to flow into gilts, pushing government borrowing costs down. In the process, these flows facilitate fiscal support. Importantly, this also ensures the UK does not suffer large national capital outflows. The key risk going forward is that if gilts are perceived as risky, then a wider sell-off and a broader capital outflow from the UK could become a possibility. This would directly increase government borrowing costs, but it would also make it very difficult for the Bank of England to support government borrowing even if it wanted to. This is because monetary policy will likely have to instead focus on shoring up the UK's capital account, especially given UK dependence on foreign financing.

The UK may have less room here than commonly thought. Long-term borrowing costs have fallen significantly and we expect nominal interest rates to remain below growth for some time as a result of the virus (Jordà, Singh and Taylor, 2020). However, the margin between these and trend growth may still fall somewhat. Long-term borrowing costs are at historical lows and are likely limited in how much further they can drop. As we noted above, the risks to potential growth are, however, also likely to the downside. If the gap between debt servicing costs and potential growth is allowed to narrow too far, concern about the UK's fiscal sustainability could become more pressing. The challenge here is that the 'fiscal fundamentals' do not currently make for happy reading. The UK has not run a primary surplus since the 2001. Since 2010, fiscal policy has been characterised by a growing rate of turnover with respect to fiscal rules (Emmerson and Stockton, 2019). If the gap between growth and borrowing costs narrows, therefore, this could result in some unease.

Re-anchoring fiscal policy over the coming years is therefore important to ensure that fiscal space (and economic policy more generally) is sufficiently durable to navigate choppy economic waters. While in the near term fiscal policy must remain supportive of the wider economic recovery, in the medium term reducing deficits (and particularly increasing tax revenue) must therefore be a priority.

## 3.6 Conclusion

The UK has to face up to the prospect of two major structural economic shocks within 12 months of one another. Brexit is, we think, still likely to weigh sharply on the economy in 2021. In addition, this is also likely to compound the structural reconfiguration already demanded by COVID. Both shocks imply substantial long-term losses to output and the threat of a weaker level of potential growth.

For now, the policy focus must remain on growth. Limited monetary policy space, and the risk of more lasting reconfiguration, mean this is now essential to avoid a more protracted period of weakness and the de facto ‘Japonification’ of the UK economy. The character and scale of the shock means fiscal policy must carry the burden.

However, in the medium term, the UK’s weak fiscal fundamentals leave it vulnerable. In the current crisis, ongoing monetary policy support should help reduce the risk to government borrowing costs (and those across the economy as a whole). As we emerge from this crisis, though, downside risks to potential growth risk compressing the margin between borrowing costs and growth. This could result in greater scrutiny of the UK’s fiscal sustainability. Dependence on foreign capital risks exacerbating the associated vulnerability. In this context, ensuring fiscal policy is on a sound footing once the current crisis has abated must be an absolute priority.

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## 4. Outlook for the public finances

Carl Emmerson and Isabel Stockton (IFS)

### Key findings

- 1 **Government borrowing this year is projected to climb to £350 billion which, at 17% of GDP, is a level never before seen in the UK, outside of the two world wars of the 20<sup>th</sup> century.** This compares with a March Budget forecast of £55 billion. Of this near £300 billion increase in forecast borrowing, just over £200 billion is the cost of the substantial packages of measures set out to help support public services, households and businesses through this difficult time, while the remaining almost £100 billion reflects the direct impact on borrowing of the sharp economic downturn associated with the pandemic.
- 2 What matters more for the long-run health of the public finances – and what is far more uncertain – is how complete the economic recovery will be. Under our central scenario, and assuming none of the temporary giveaways in 2020–21 are continued, **borrowing in 2024–25 is forecast to be over £150 billion compared with the March Budget forecast of £58 billion.** Under our pessimistic scenario, borrowing is forecast to be over £200 billion in 2024–25, while even under our optimistic scenario it is still forecast to be over £90 billion.
- 3 There will be significant pressures to increase public spending above plans by maintaining some of the additional spending used to support the economy, public services and working-age

social security over this year. **If a quarter of the additional public service spending announced in response to COVID-19 were made permanent, this would add £20 billion (in today's prices) to spending by 2023–24.** Depending on the size of any tax rise implemented by that point, this could add up to 1% of national income to forecast borrowing in 2023–24.

- 4 Prior to the pandemic, public sector net debt was around 80% of national income and was forecast to fall slightly over the next few years. This was considerably above the 35% of national income seen in the years prior to the financial crisis. In 2024–25, we forecast public sector net debt to be just over 110% of national income in our central scenario, close to 100% of national income in our optimistic scenario and close to 130% in our pessimistic scenario. **In the central scenario, over three-quarters of the rise in debt will result from lower economic activity rather than the large increases in spending implemented this year.**
- 5 With the government currently able to borrow very cheaply, under each of these scenarios spending on debt interest as a share of revenues would fall even further from its recent historical low. This low cost of borrowing means that **additional spending now that helped to deliver a more complete recovery would almost certainly be worth doing.**
- 6 Once the economy has recovered, **policy action will be needed to prevent debt from continuing to rise as a share of national income.** The scale of the challenge will be considerable, but so is the degree of uncertainty around the size of consolidation that will ultimately be required. Even if the government's cost of borrowing remains low, and ignoring other pressures, under our central scenario a 2.1% of national income fiscal tightening in 2024–25 – £43 billion in today's terms – would still only be sufficient to stabilise debt at over 100% of national income over the next 40 years.

- 7 In fact, **additional spending pressures on health, pensions and social care** are expected by the Office for Budget Responsibility to add 1.8% of national income to spending each decade. They treble the projected necessary policy action, with a fiscal consolidation of 6.6% of national income required if public sector net debt is to be brought down to 100% of national income in 40 years' time.
- 8 While the policy action needed is much lower under our optimistic scenario (the 6.6% of national income falls to 3.6% of national income), a rise in interest rates or **future adverse shocks such as those experienced twice in the UK in the period since just 2007 would make the task of preventing debt from rising further over the next 40 years even more challenging.**
- 9 The Conservative Party manifesto commitment to reduce debt as a share of national income over this parliament will be broken, and the current fiscal targets lie in tatters. But the high degree of uncertainty means that now is not the time to be announcing new targets, or the size, timing or nature of any fiscal tightening. Even the Autumn Budget of 2021 may be too soon for this. Meanwhile, the Chancellor should **recommit to the independence of the OBR and ensure that as far as possible it is able to scrutinise costings in advance of major policy announcements.** More generally, Mr Sunak should champion a general recognition that, once the economy has been restored to health, a fiscal tightening will follow.

## 4.1 Introduction

The COVID-19 pandemic has caused huge economic disruption: the lockdown halted economic activity in some sectors, consumers have changed their behaviour to reduce the risk to their health and others in their family, and the onset of the recession and uncertain outlook have weighed on confidence (see Chapters 1 and 2). Governments across the developed world have responded with large

interventions to fund public services' response and to help support businesses, jobs and incomes. These interventions are – quite sensibly – leading to sharp increases in government borrowing.

In this chapter, we start by characterising the outlook for the UK's public finances over the next five years. With the economy having only recently begun to emerge from nationwide lockdown and many questions around how the prevalence of the pandemic will develop, the outlook is even more uncertain than usual. To emphasise the range of possible outcomes, we provide three illustrative scenarios for the public finances, based on the conditions set out in three of the economic scenarios described in Chapter 2.

It is worth noting that these scenarios by no means exhaust the full range of possible outcomes. In particular, the pessimistic scenario is not a worst-case scenario, in that it is certainly possible that the eventual economic recovery will be even less complete. More optimistically, it is possible, though unfortunately not in our view likely, that the recovery is swifter and fuller than implied by the upside case that we consider.

In addition, COVID-19 is by no means the only source of uncertainty for the economy and the public finances. The future trading relationship with the European Union is still subject to negotiation. All our scenarios make a common assumption of a smooth transition to a shallow trade deal, although here, too, there are risks both to the downside risks (most obviously, an exit from the transition period on World Trade Organisation (WTO) terms and a long period of uncertainty) and to the upside risks (for example, the eventual agreement of a more comprehensive deal).

Section 4.2 sets out our forecasts for borrowing under each of these scenarios, Section 4.3 shows what these would mean for public sector net debt, while Section 4.4 presents the resulting path of spending on debt interest.

In the second part of the chapter, we turn to the longer-run outlook beyond the COVID crisis. Trends from before the pandemic, including muted productivity growth and the projected public finance costs of an ageing society, already suggested that – over the longer term – considerable tax rises or spending cuts would be needed to ensure the public finances were in a sustainable position. Any enduring harm to economic performance from the current crisis would increase the

eventual need for tax rises or spending cuts, although we stress that now is not the time to embark on this consolidation, or – given heightened uncertainty – even to commit to its shape, size or timing. Section 4.5 presents projections for public sector net debt under different assumptions for the size of the eventual fiscal tightening and the evolution of growth and government borrowing costs. Finally, Section 4.6 concludes with some recommendations for the Chancellor as he prepares for the next Budget which should now, at the very latest, take place in the Spring.

## 4.2 Borrowing remains elevated in all scenarios

The latest estimate is that borrowing in 2019–20 was £55.8 billion, or 2.5% of national income. This was somewhat higher than the £47.4 billion, or 2.1% of national income, forecast in the March 2020 Budget.

The Budget was prepared largely before any direct impact of COVID-19 on the UK economy had been anticipated by the Office for Budget Responsibility (OBR) or other forecasters. As a result, borrowing this year (in 2020–21) will be substantially higher than was forecast in March. As shown in Figure 4.2, under our central scenario, borrowing this year is forecast to rise to 17.1% of national income (£351 billion), which would be some £296 billion above the £54.8 billion forecast in the March Budget.

There is a great deal of uncertainty even over the range of possible outcomes for borrowing in the current financial year. Under our more optimistic scenario, borrowing this year is forecast to be 16.7% of national income (£345 billion). In contrast, under our pessimistic scenario (in which a second outbreak in coming months forces the reimposition of widespread and stringent lockdown measures), borrowing is forecast to rise further to 18.9% of national income (£376 billion).

The methodology we employ to forecast receipts and spending – and therefore borrowing – under each of the three scenarios for the economy that we consider is set out in Box 4.1.

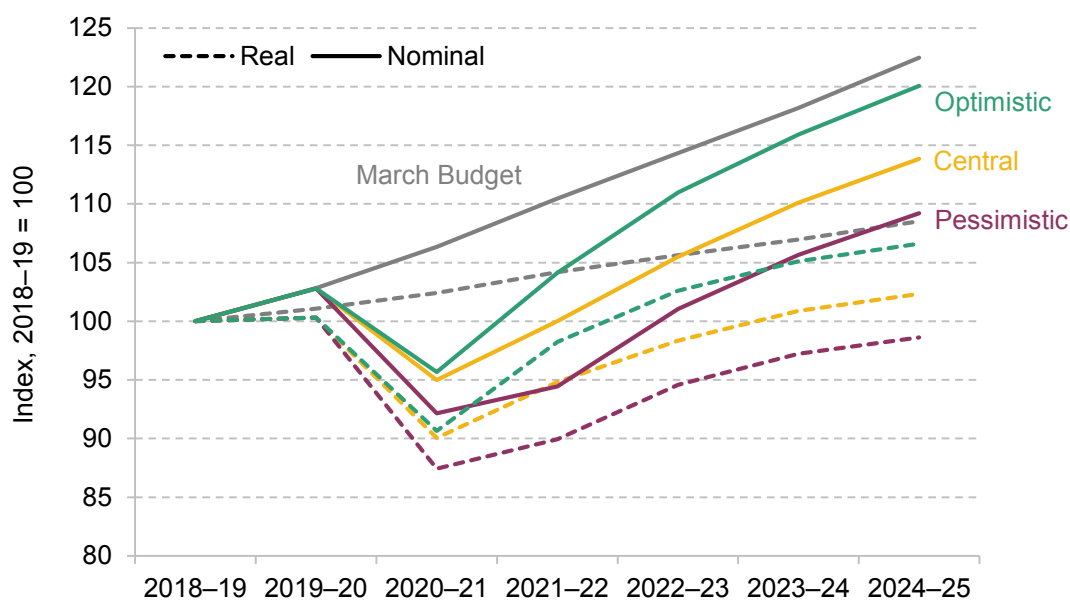
### Box 4.1. Methodology

Our scenarios use the change in borrowing between the OBR's March Economic and Fiscal Outlook and the 'central' scenario from its July Fiscal Sustainability Report. We separate the rise in borrowing into discretionary measures, lower spending on debt interest, lower oil prices and the fall in the stock market and we attribute the residual to a 'pure' GDP effect (including the drop in tax revenues and the additional social security spending caused by the economic downturn).

We then construct a new forecast using multipliers for both government revenues and government spending backed out from these effects and applying them to the economic variables (interest rates, inflation, oil prices, stock market values and GDP) from Citi's scenarios.

Figure 4.1 sets out forecasts for national income in real terms (shown by the dotted lines) and in nominal or cash terms (shown by the solid lines) under each of the three scenarios, along with how these compare with the OBR's March 2020 forecast.

**Figure 4.1. Economic growth in three scenarios**

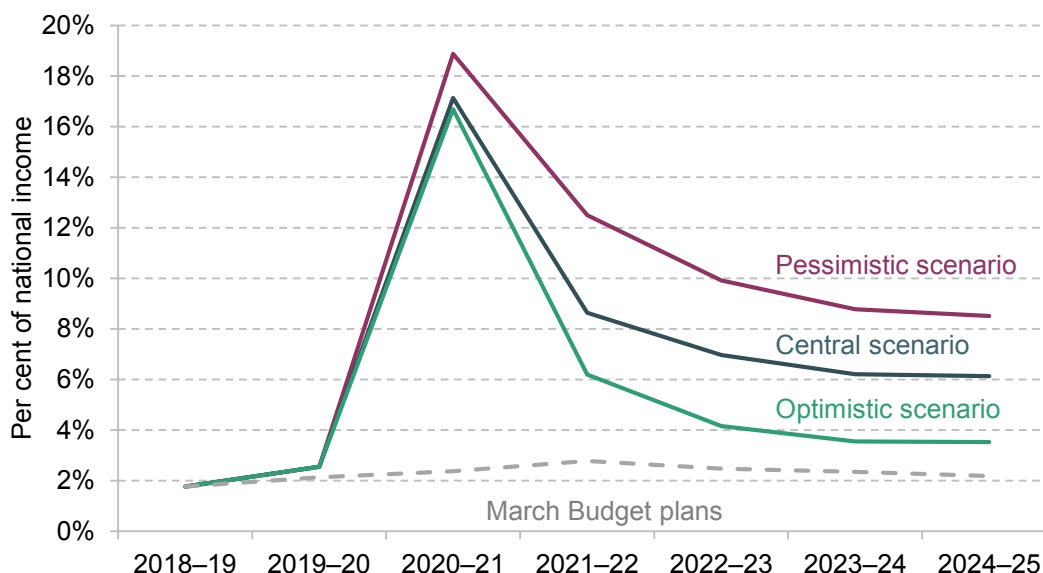


Source: Authors' calculations using the scenarios prepared by Citi for this year's Green Budget that are presented in Chapter 2, OBR March 2020 Economic and Fiscal Outlook and OBR July 2020 Fiscal Sustainability Report.

In all three scenarios, national income remains below that forecast in the March Budget throughout the next five years. While the decline in national income this year is greater in the pessimistic than in the central or optimistic scenarios, the chief difference lies in the strength of the recovery.

The expected deflationary impact of the pandemic means that, in each scenario, national income in nominal terms has been downgraded by more than national income in real terms. For the public finances, this is important as revenues are more affected by national income in cash terms than in real terms.

**Figure 4.2. Forecast path of borrowing in our three scenarios compared with the March 2020 Budget**



Source: Authors' calculations using the scenarios prepared by Citi for this year's Green Budget that are presented in Chapter 2; Office for Budget Responsibility, 'Economic and fiscal outlook – March 2020', <https://obr.uk/efo/economic-and-fiscal-outlook-march-2020/>; Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>; Office for Budget Responsibility, Coronavirus Policy Monitoring Database, 14 July 2020, <https://obr.uk/download/coronavirus-policy-monitoring-database-14-july-2020/>; Prime Minister's statement on coronavirus, 17 July 2020, <https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-17-july-2020>. Includes an indicative costing of £1 billion a month for five months, and nothing thereafter, for the Winter Economic Plan.

Borrowing this year in our central projection exceeds the OBR's central scenario from its July 2020 Fiscal Sustainability Report by £29.2 billion in cash terms, and by 0.8% of national income. However, this difference is more than explained by new discretionary giveaways not included by the OBR in its July report. Most obviously, these include the £20 billion costing of the 'Plan for Jobs' announced after the OBR's report in the Chancellor's July Summer Economic Update and the £30 billion of additional public service spending also confirmed in that statement.

The decline in national income this year, in contrast, is actually less severe in our central scenario than in the OBR's central scenario. The story is much different when we consider the end of the medium-term forecast period: in 2024–25, the difference in borrowing between our scenario and the Fiscal Sustainability Report grows to 1.5% of national income, or £34.8 billion in nominal terms, all of which is explained by weaker forecast growth beyond 2020–21.

After this year, borrowing is projected to fall sharply under all three of the scenarios we consider. Nevertheless, borrowing is forecast to remain higher than was forecast in the March 2020 Budget for several years to come. Even in our optimistic scenario, in which fears about the virus dissipate faster and the economy rebounds more quickly and more fully towards its pre-crisis expected trajectory, borrowing remains well above those earlier forecasts throughout the next five years.

Table 4.1 shows the levels of borrowing forecast under each scenario both in cash terms and as a share of national income in 2024–25, and the difference from the March 2020 forecast. In our central scenario, borrowing is forecast still to be 6.1% of national income – almost three times the 2.2% forecast in the March Budget – at the end of the forecast horizon in 2024–25. This is despite the fact that this scenario assumes that there is essentially no temporary discretionary COVID-related spending beyond next March. This means that, for example, the procurement of additional personal protective equipment and services such as NHS Test and Trace will no longer be required (Chapter 6) and increases in the generosity of the working-age social security system will not be made permanent (Chapter 8). As set out in Chapter 6, if a quarter of the additional public service spending announced in response to COVID-19 were made permanent, this would add 1% of national income to spending by 2023–24.

**Table 4.1. Borrowing in 2024–25 under our three scenarios compared with the plans announced at the March 2020 Budget**

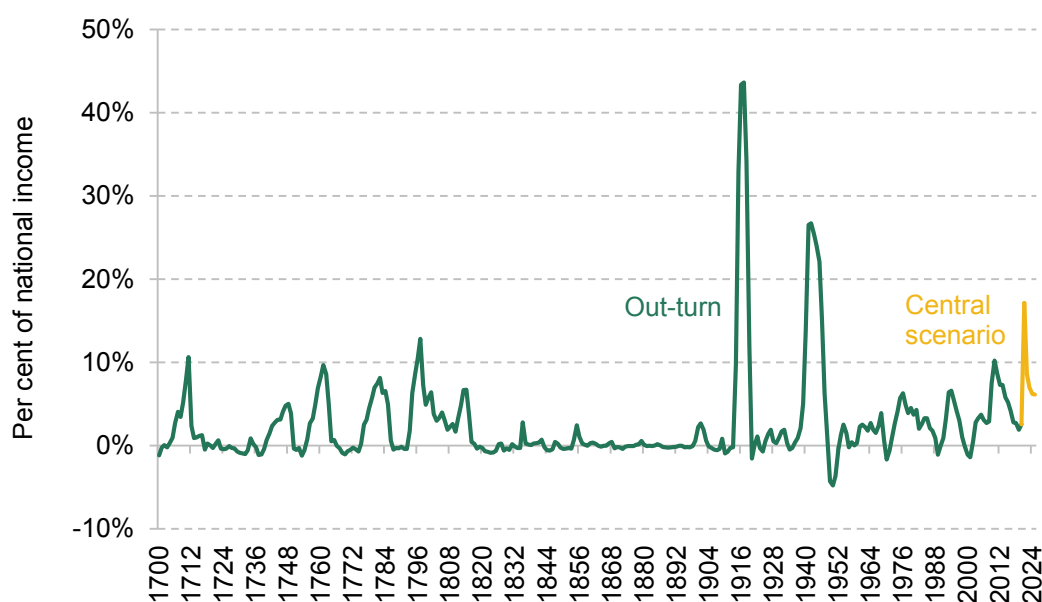
	<b>Borrowing (2024–25 terms)</b>	<b>As a share of national income</b>	<b>Increase relative to March Budget (today's terms)</b>
March 2020 Budget	£57.9bn	2.2%	n/a
Optimistic	£91.3bn	3.5%	£27.4bn
Central	£150.8bn	6.1%	£80.9bn
Pessimistic	£200.6bn	8.5%	£129.7bn

Source: As for Figure 4.2.

But the degree to which borrowing is forecast to remain above the March 2020 Budget forecast in 2024–25 varies hugely between the three scenarios we consider. Under our more optimistic scenario, borrowing (of 3.5% of national income) is less than three-fifths of what it is under our central scenario, while under our pessimistic scenario, borrowing (of 8.5% of national income) is more than a third bigger than under our central scenario.

### How does forecast borrowing compare historically?

The current financial year will certainly earn its place in UK public finance history. In each of our three scenarios, borrowing this year is forecast to exceed by a considerable margin the 10.2% of national income borrowed at the peak of the financial crisis (in 2009–10). Furthermore, as shown in Figure 4.3, it will reach the highest share of national income outside of the two world wars that the UK has seen in over 300 years.

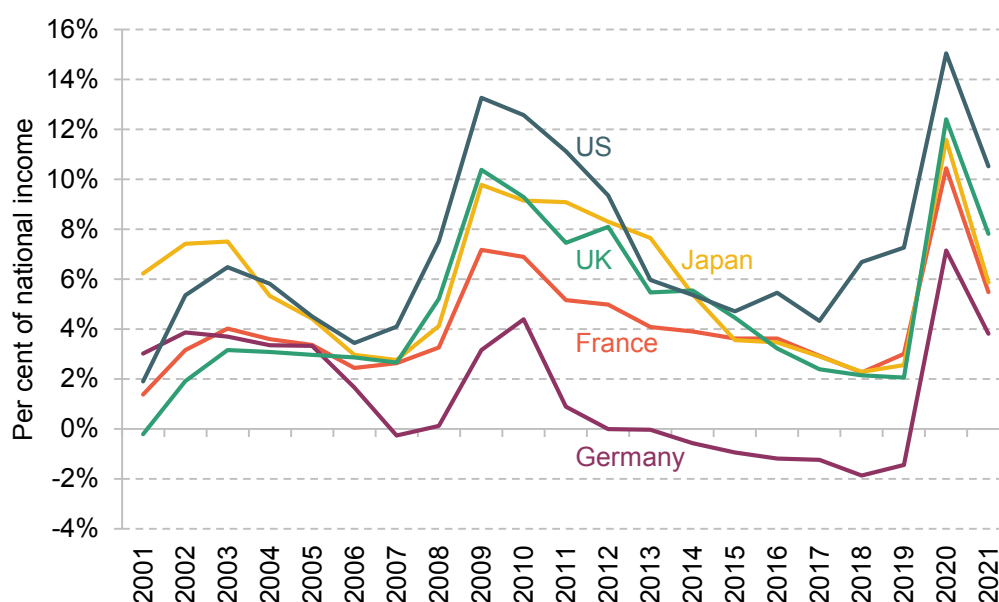
**Figure 4.3. Borrowing in historical comparison**

Note: Calendar year central government borrowing until 1920, then public sector net borrowing financial year ending March. Great Britain until 1801, UK thereafter.

Source: As for Figure 4.2; Bank of England, 'A millennium of macroeconomic data', <https://www.bankofengland.co.uk/statistics/research-datasets>; Office for Budget Responsibility, Public Finances Databank, July 2020, <https://obr.uk/download/public-finances-databank-july-2020/>.

## How does borrowing compare with that in other countries?

Since the rise in borrowing is the result of the public health and fiscal response to a global pandemic, it is unsurprising that other advanced economies are also experiencing sharp increases in borrowing. Figure 4.4 shows OECD forecasts for borrowing in France, Germany, Japan, the United Kingdom and the United States. Unfortunately, these are from June 2020 and therefore are now somewhat out-of-date as, for example, many countries have announced additional increases in their support packages since then (which will add further to borrowing). For example, in the UK, Chancellor Rishi Sunak's July 'Summer Economic Update' is not included in these figures; as stated above, the OBR estimates that its measures will add around £50 billion – that is, over 2% of national income – to borrowing in 2020–21.

**Figure 4.4. OECD forecasts for borrowing in selected large economies**

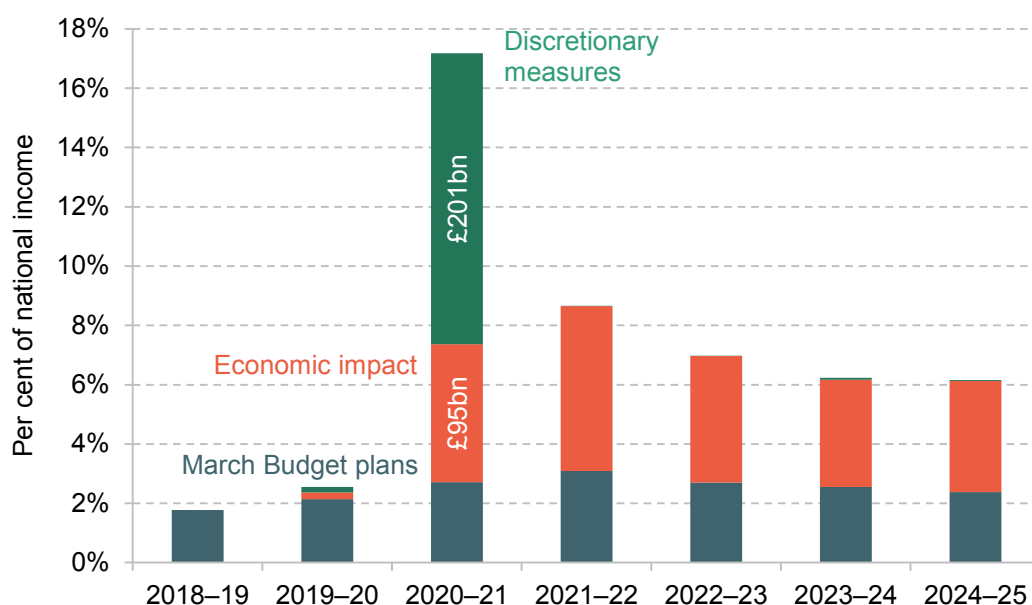
Note: Figures from OECD 'single-hit scenario'. This scenario projects a decline in real UK GDP of 11.5% in 2020, similar to the 10–11% decline in our scenarios. The OECD described the underlying epidemiological assumptions as a successful containment, with effective testing, tracing and treating reducing the effective reproduction rate to below 1 until a vaccine becomes available. In its September interim report, it has revised its GDP estimate upward slightly for the UK, to a decline of 10.1%, but not updated borrowing and debt forecasts.

Source: OECD Economic Outlook, June 2020.

Despite this caveat, the overall picture from Figure 4.4 is clear: all five countries see borrowing increase sharply in 2020 to a level that exceeds that experienced at the peak following the financial crisis. While borrowing is forecast to fall back in 2021, it is nevertheless expected to remain well above the levels seen in each country in the last few years.

### Drivers of higher forecast borrowing

Figure 4.5 sets out the different drivers of this high level of borrowing. Under the plans set out at the March Budget, the government had indicated that it was already more comfortable with borrowing than its predecessors. These plans were for borrowing to rise between 2018–19 and 2019–20 as increases in spending were not to be matched with increases in tax, and then to stabilise around 2% of national income, with no plans for (further) fiscal consolidation.

**Figure 4.5. Drivers of the increase in borrowing in the central scenario**

Source: As for Figure 4.2.

However, these increases are dwarfed by the enormous amount of additional borrowing associated with the COVID-19 pandemic. There are two main drivers of the increase in cash-terms borrowing: the automatic impact of the economic disruption on tax revenues and spending, and the government's discretionary giveaways to help support households, firms and public services through the crisis.

### Automatic stabilisers

The economic disruption necessitated by the lockdown depressed tax revenues and increased working-age social security spending as more workers became unemployed or saw their earnings fall. For example, over the period April to August 2020, accrued VAT receipts are estimated to have been £51.2 billion. This is £13.5 billion down from the £64.7 billion for the same five months in 2019 – a fall of more than 20%. On the spending side, spending on means-tested financial support has increased to £48.9 billion in the five months since April, an increase of 15%, or £6.5 billion, on the same period last year. In its Fiscal Sustainability Report, the OBR forecasts that employment will, on average, be 2.3 million lower in 2020–21 than it forecast in March and that this will push up social security spending by £25 billion.

The drop in national income this year will push up borrowing by more next year (2021–22) than it does this year (we describe our methodology for forecasting this, based on the OBR’s Fiscal Sustainability Report, in Box 4.1). In part, the impact on borrowing will be somewhat muted in the first year of any downturn – for example, as rising unemployment tends to follow an economic downturn with some delay.

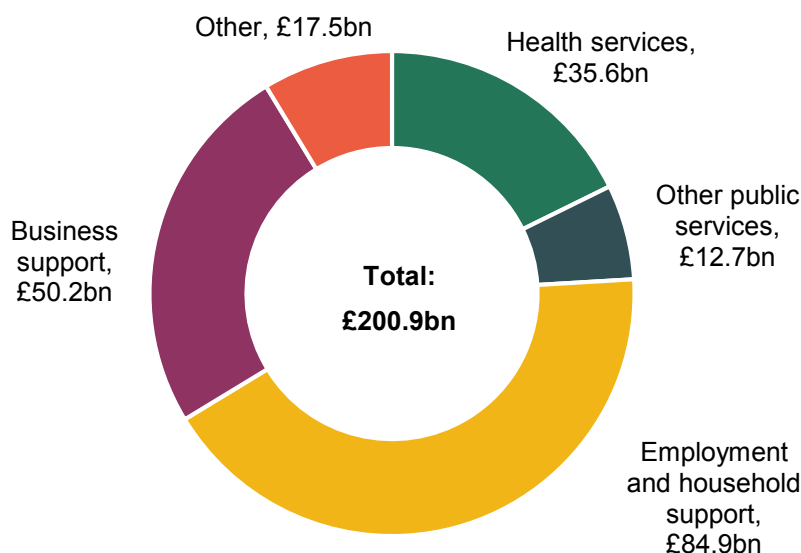
Other factors are specific to the COVID-19 crisis. First, the government has provided an unprecedented level of support to households and businesses since March, which is almost completely unwound after next March in our scenarios, in accordance with stated government plans up until the end of September. While the spending itself is part of the government’s discretionary response, one effect of this support is to help prop up tax revenues this year (with perhaps the obvious example being around £5 billion in income tax and National Insurance contributions expected to be paid on earnings that are covered by the Coronavirus Job Retention Scheme).

In addition, the first part of the COVID-19 recession was unusual in that there was a very significant decline in National Statistics measures of public sector activity. This is because the public sector’s contribution to national income is captured by imperfect measures of output based on, for example, the number of pupils taught in schools and the number of medical procedures carried out in hospitals. Usually these hold up in a recession, but this year they have been considerably lower, which has contributed to a larger fall in measured national income. For example, measured education output in the UK national accounts was 38% lower in the second quarter of 2020 than in the same period in 2019; the national accounts methodology does not incorporate parents’ homeschooling their children as an economic output, and records a reduction in output when schools switch to distance learning. This drop was much bigger than the fall in the service sector as a whole, which contracted by an estimated 21%. But falls in, for example, numbers of pupils taught in schools or the number of medical procedures carried out in hospitals will not have a substantial direct impact on tax revenues.

### The discretionary response

The second driver of increased borrowing is the government’s discretionary fiscal policy response – the tax, benefit and public service spending policies it has chosen to introduce in order to help support businesses, households and public services through the pandemic. Quite appropriately, this is a large package – and one that

**Figure 4.6. Estimated size of discretionary measures in response to COVID-19 in 2020–21 (announced by 28 September 2020)**



Note: 'Other public services' includes public transport, education and local government. 'Other' includes the devolved administrations, revenue measures, the Culture Recovery Fund, the 'Eat Out to Help Out' scheme and several other programmes. Includes an indicative costing of £1 billion a month for five months, and nothing thereafter, for the Winter Economic Plan.

Source: Office for Budget Responsibility, Coronavirus Policy Monitoring Database, 14 July 2020, <https://obr.uk/coronavirus-analysis/>; Prime Minister's statement on coronavirus, 17 July 2020, <https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-17-july-2020>.

has helped prevent even worse economic impacts from the crisis. As shown in Figure 4.5, the discretionary package adds considerably to borrowing in 2020–21, but has almost no direct impact on borrowing in other years. The assumption that this package of measures is only in place in the current financial year, which is stated government policy at the time of writing, is therefore a big driver of the fall in forecast borrowing between 2020–21 and 2021–22.

Figure 4.6 shows the size and decomposition of the discretionary package of measures announced so far for 2020–21. Employment support (the Coronavirus Job Retention Scheme, better known as the furlough scheme, and the Self-Employment Income Support Scheme) and increases in the generosity of the working-age social security system (see Chapter 8) accounted for the largest share of the additional spending. Just under a quarter was spent on direct support for businesses, such as

grants and business rates relief, and a similar amount again on additional public service spending, chiefly on health.

As stated above, virtually all of these measures are not currently planned to be continued beyond the end of the current financial year in March 2021. However, there are many reasons why additional discretionary spending directly or indirectly related to the pandemic may yet be announced for future years.

- There may be additional spending on the NHS to respond to any future flare-up of COVID-19 – for example, personal protective equipment (PPE) purchases or the running costs of an ongoing ‘Test and Trace’ programme – or to tackle a backlog of non-COVID care. Voters, and the government, may want to fund additional capacity or improvements in wages and working conditions in the health and social care system, or invest in stockpiling and disaster preparedness for possible future pandemics or other large emergencies. These and other spending pressures on public services are discussed in more detail in Chapter 6.
- The temporary increases in the generosity of the working-age social security system put in place for the current financial year may also be difficult to roll back fully once the immediate crisis has passed (see Chapter 8).
- Further fiscal stimulus measures may be needed. Indeed, Mr Sunak himself has said, ‘I’m always looking for interesting, creative, innovative and effective new ways to support jobs and employment and people can rest assured that will remain my number one priority’.<sup>1</sup>
- Going in the opposite direction, as we set out in Section 4.5, at some point – but not yet – fiscal consolidation measures will most likely be needed. As Mr Sunak has said, ‘Over time and as the economy recovers, we absolutely need to have an eye on our public finances and to make sure that we are in a strong and sustainable position’.<sup>2</sup>

If some of these additional spending pressures are accommodated, and – as would be sensible – any tax rises are delayed, then borrowing would be pushed up further. As described in Chapter 6, if a quarter of the additional public service spending

<sup>1</sup> Interview with Faisal Islam, BBC Economics Editor, 15 September 2020, <https://www.bbc.co.uk/news/business-54169099>.

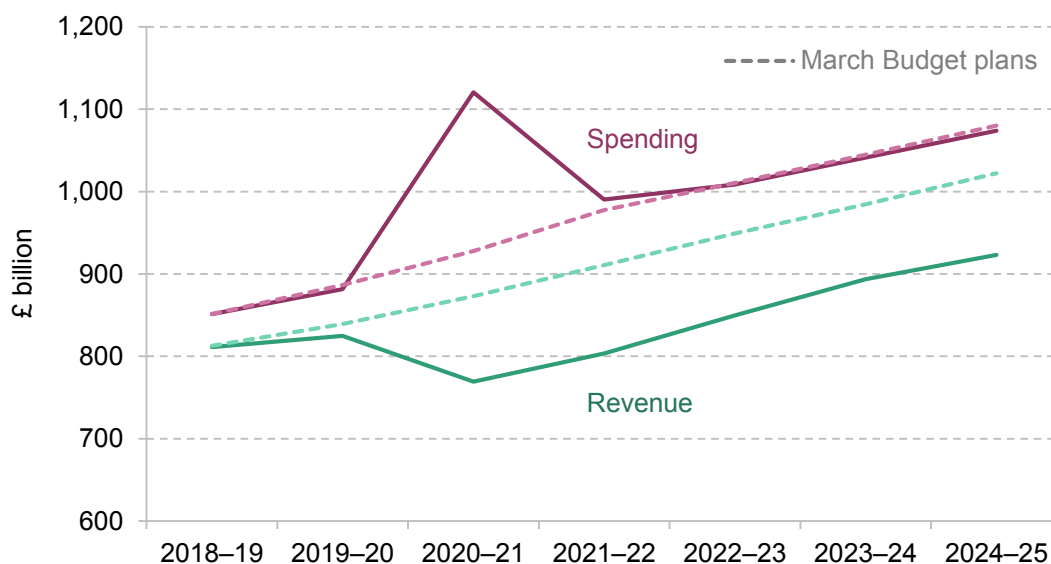
<sup>2</sup> Chancellor Rishi Sunak speaking at Downing Street press conference following the launch of his Winter Economic Plan, as reported here: <https://www.itv.com/news/2020-09-24/coronavirus-rishi-sunak-announces-government-will-pay-up-to-two-thirds-of-wages-for-people-on-reduced-hours>.

announced in response to COVID-19 were made permanent and non-COVID public service spending continued to grow at the rate planned in March, this would add £20 billion to spending by 2023–24 (in today's prices). Depending on the size of any tax rise implemented by that point, this could add up to 1% of national income to forecast borrowing in 2023–24.

## Tax and spend

Borrowing, by definition, is the gap between what the public sector spends and what it raises in taxes and other revenue. Figures 4.7 and 4.8 separate our forecasts for revenue and spending under the central scenario to show how changes in each drive the large increase in forecast borrowing. The discretionary measures set out in the previous subsection are primarily spending measures, with less than one-tenth of the total taking the form of tax cuts. These discretionary spending measures are the drivers of this year's spike, and the following sharp drop, in spending measured in cash terms and shown in Figure 4.7.

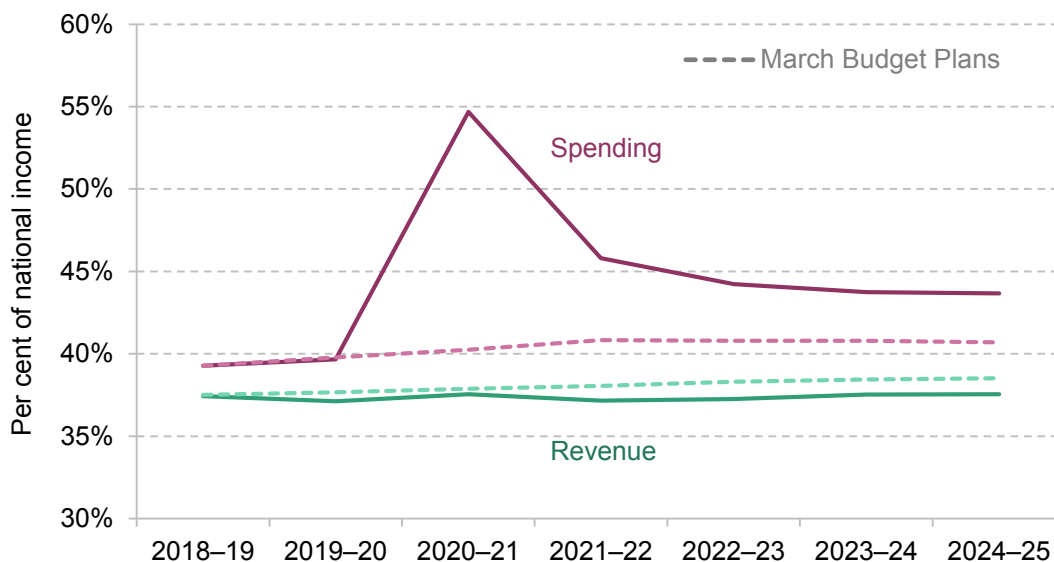
**Figure 4.7. Forecast revenue and spending in cash terms under our central scenario**



Note: Pale dotted lines represent the March Budget forecast; solid lines represent our forecast under the central scenario.

Source: As for Figure 4.2.

**Figure 4.8. Forecast revenue and spending as a share of national income under our central scenario**



Note: As for Figure 4.7.

Source: As for Figure 4.2.

In subsequent years, there are two countervailing effects. On the one hand, social security spending remains elevated as the recovery is slow and incomplete. More than offsetting this, debt interest spending is much lower than forecast in March, thanks to record-low interest rates and the expansion in quantitative easing (see Chapter 5). As a share of national income, as shown in Figure 4.8, the spike in spending is even more pronounced, as the economy has shrunk and thus further pushed up cash spending as a share of national income.

As a share of national income, revenues are much more stable than spending. From next year until the end of the forecast period in 2024–25, they are about 1% of national income lower. Revenue in £ billion terms also drops sharply this year, but unlike in the case of spending, this largely arises automatically within the tax system from the sharp fall in economic activity. The gap between the Budget forecast and the central scenario is around £100 billion.

In cash terms, in 2024–25, elevated borrowing is entirely explained by tax revenues being lower than forecast in the March 2020 Budget. However, when comparing the shares of national income, a different picture emerges: tax receipts being lower as a share of national income only explains about one-quarter of the increase in

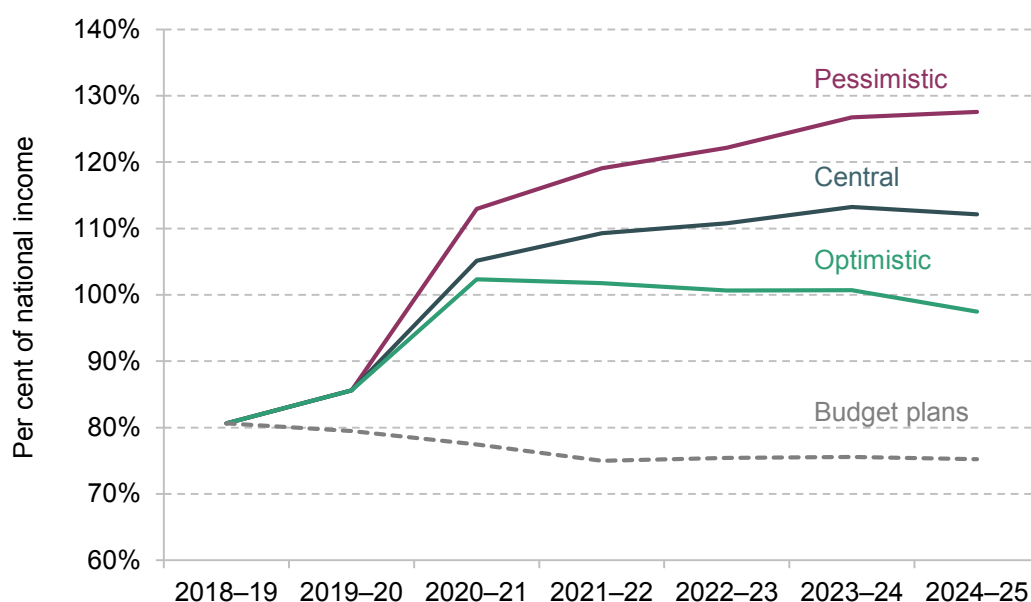
borrowing, with higher spending as a share of national income explaining the remaining three-quarters. This broad picture – with receipts being more depressed in cash terms, while spending pushed up more as a share of national income – relative to previous forecasts was also seen as a result of the 2008 financial crisis and associated recession.

## 4.3 Where would this leave the debt burden?

The 2019 Conservative general election manifesto made the promise that ‘debt will be lower at the end of the Parliament’ (Conservative Party, 2019, p. 7). Under March Budget plans, before the impact of the pandemic could be included in the forecasts, headline debt as a share of national income was already forecast to fall only very slowly. Moreover, this fall was entirely explained by the anticipated repayment of loans that had been made under the Bank of England’s Term Funding Scheme, which had been introduced to support the financial sector in the wake of the Brexit referendum. Excluding the impact of Bank of England interventions, and therefore focusing on the part of debt that is directly influenced by government policy,<sup>3</sup> debt as a share of national income was already forecast to remain flat. In other words, it was already touch-and-go whether or not debt as a share of national income would be lower at the end of this parliament than at the start.

With this year’s huge spike in borrowing, the manifesto commitment to reduce debt over the parliament will be missed by a very wide margin. Figure 4.9 shows the forecast for public sector net debt under each of our scenarios compared with the March 2020 Budget forecast. Under our central scenario, following the sharp increase in debt between last year and this year, persistently large borrowing combined with ongoing weakness in the economy continues to push debt up as a share of national income, climbing above 110% of national income from 2023–24. Under our pessimistic scenario, debt rises further, climbing to almost 130% of national income in 2024–25. In contrast, under our optimistic scenario, debt remains around 100% of national income over the next few years. But even under

<sup>3</sup> This strips out the oddity that the liabilities created by the Bank of England to finance its Term Funding Scheme count towards public sector net debt but the assets acquired by that funding – that is, the loans that were made – are not netted off.

**Figure 4.9. Forecasts for headline debt under our three scenarios**

Source: As for Figure 4.2.

this scenario, public sector net debt is forecast to be over 20% of national income higher in 2024-25 than was predicted in the March Budget, and more than 15% of national income higher than it was in 2018-19. Again, none of these scenarios allows for ongoing top-ups to the spending planned in March.

Whilst there is no particular reason to believe that the level of debt in 2018-19, or the level expected for the end of the medium-term forecast horizon back in March, was the ‘right’ one, it illustrates the sharp change in outlook for the public finances since then.

### Drivers of higher forecast debt

The difference in the forecasts for debt as a share of national income in 2024-25 can essentially be split into three components:

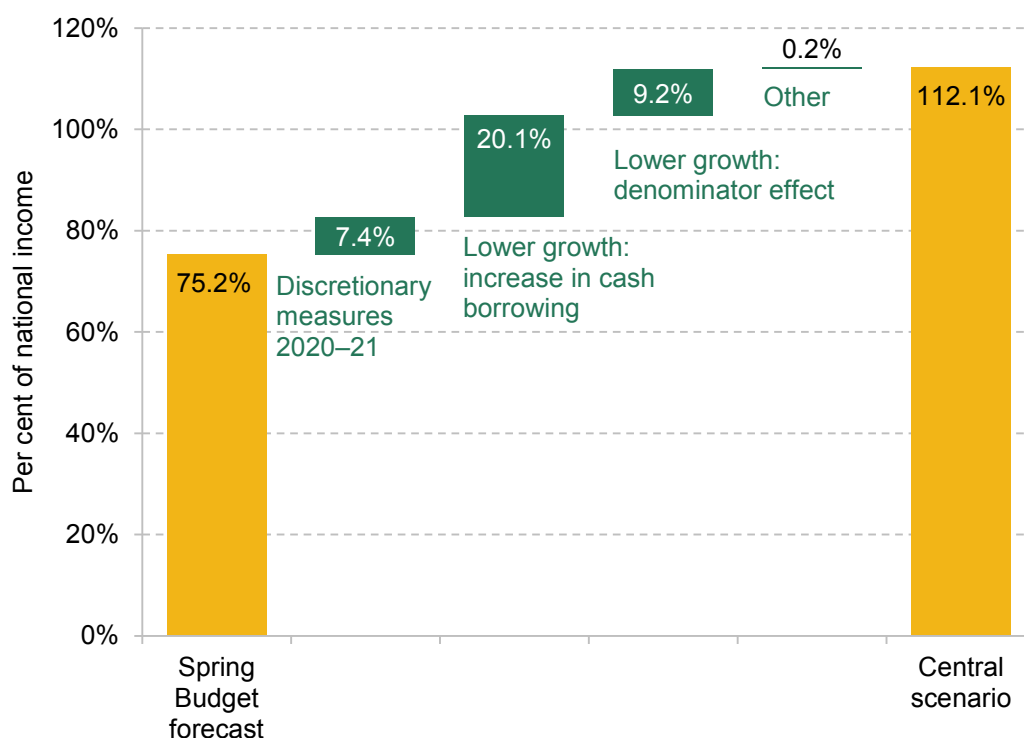
- the impact of **discretionary new measures** (assumed to be almost entirely in 2020-21, as per current government plans) pushing up cash borrowing over the period (by raising spending or cutting taxes in response to the crisis);

- the impact of **weaker growth** leading to higher cash borrowing over the period (because of higher spending through the existing social security system and, in particular, lower tax receipts from existing taxes); and
- the impact of weaker growth on the size of the economy (the **denominator effect**), meaning that the already-planned cash debt for 2024–25 will now represent a larger share of national income.

Figure 4.10 decomposes the difference in the forecast debt burden in 2024–25 between the March Budget and our central scenario into these three components.

The new discretionary measures, which push up borrowing in 2020–21, will have the direct impact of adding just over 7% of national income to public sector net debt in 2024–25, as shown in the figure.

**Figure 4.10. Drivers of the higher debt burden in 2024–25 under our central scenario compared with the March Budget forecast**



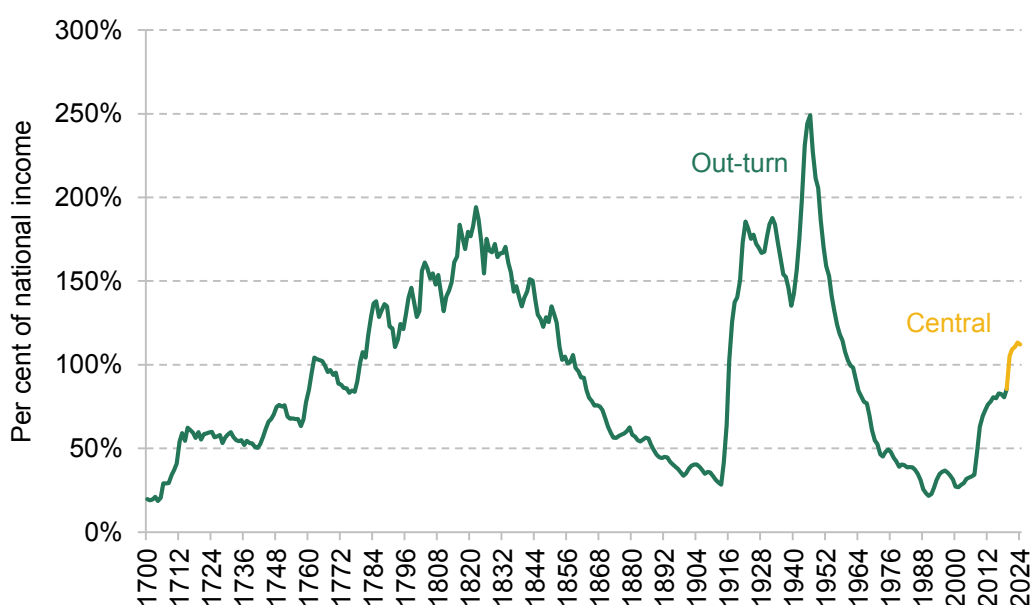
Source: As for Figure 4.2.

But a more important driver of higher debt as a share of national income is lower growth over this period. Figure 4.5 showed (in red) how the economic impact of the crisis led to higher forecast borrowing over the period from 2020–21 through to 2024–25. This has the direct impact of increasing public sector net debt by just over 20% of national income in 2024–25. In addition, the previously planned cash level of debt will represent a larger share of a now smaller national income. This ‘denominator effect’ adds 9% of national income to forecast debt in 2024–25. (Some other minor factors, including new Bank of England loans and reduced debt interest costs, almost exactly cancel one another out.) Overall, over three-quarters of the 30% of national income forecast increase in debt between 2018–19 and 2024–25 can be explained by weaker growth over this period.

### How does forecast debt compare historically?

Together, these factors will push the debt burden up to a share of national income that was last seen in the UK 60 years ago. But taking a much longer view, this level is by no means unprecedented, as shown in Figure 4.11. The debt burden was even higher during the first half of the 19<sup>th</sup> century, in the inter-World-War period and during the Second World War.

**Figure 4.11. Public sector debt in historical comparison**



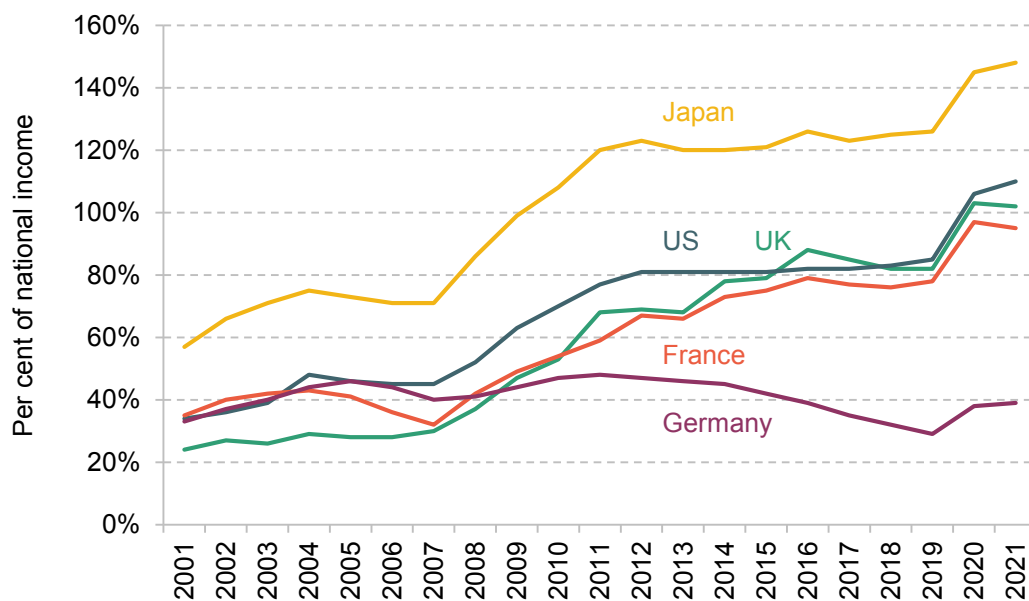
Note: Calendar year until 1920, then financial year ending March. Includes Ireland pre-1920.

Source: As for Figure 4.3.

## How does debt compare with that in other countries?

Debt is also forecast to rise sharply in 2020 in France, Germany, Japan and the United States. A comparison of OECD forecasts is shown in Figure 4.12. This year's increase in debt comes after substantial increases in debt seen during the financial crisis, since when only Germany had seen a clear reduction in its ratio of debt to national income. As a result, 2020 is forecast to see debt rise to its highest level since the turn of the millennium in all these countries except Germany. On this internationally comparable measure of debt,<sup>4</sup> the UK has similar levels of debt to France and the United States, with higher debt than Germany but substantially lower debt than Japan.

**Figure 4.12. OECD forecasts for net financial liabilities as a share of national income in selected large economies**



Note and source: As for Figure 4.4.

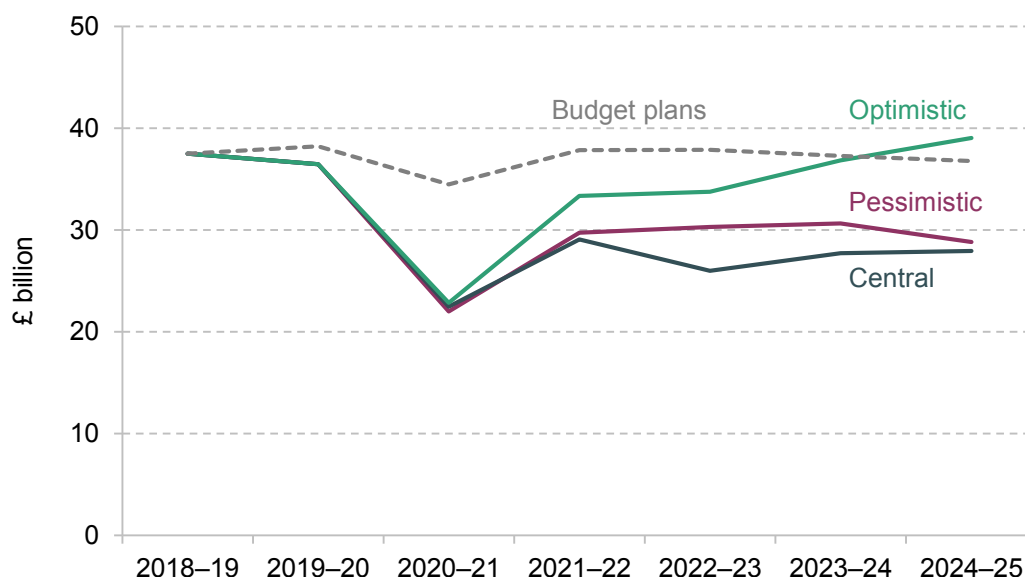
<sup>4</sup> This measure is for general government (that is, central and local government), whereas the measure we use elsewhere in this chapter is for the whole of the UK public sector, including public sector corporations. The latter measure is preferable for its greater generality but harder to get on an internationally comparable basis.

## 4.4 The cost of servicing the UK's debt

If the debt burden has been this high and higher before, is it really a problem? One reason to be concerned about a high level of public debt is the cost of servicing it, which essentially means taxes are raised to pay interest charges rather than funding other priorities. But, as we will show, spending on debt interest has fallen to a record low and, despite the large increase in the stock of debt over the next five years, is forecast to fall further in all three scenarios, only reaching the previously forecast level by the end of the forecast period in the optimistic scenario. This is shown in Figure 4.13.

Low debt interest spending does not necessarily indicate healthy public finances. For example, debt interest spending is actually forecast to be higher under our optimistic scenario than in our central or pessimistic one. This is despite the much lower forecast for debt in the more optimistic of the three scenarios (as shown in Figure 4.9). In this optimistic scenario, the economy is deemed to be doing well enough for the Monetary Policy Committee of the Bank of England to begin to increase interest rates, putting some upward pressure on debt interest spending. In

**Figure 4.13. Debt interest spending in three scenarios**



Note: Debt interest spending net of income from the Asset Purchase Facility.

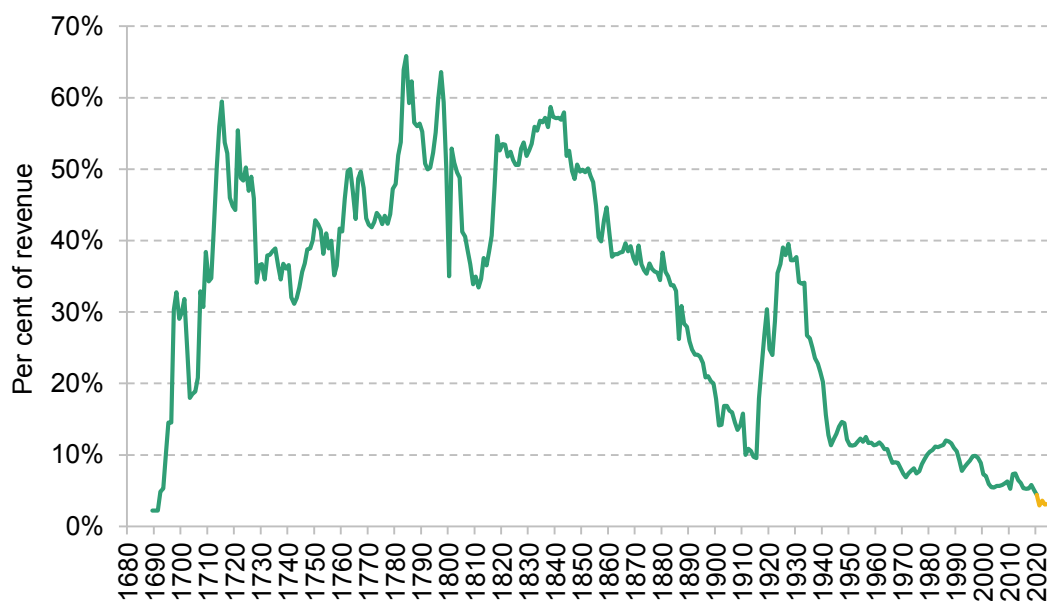
Source: As for Figure 4.2.

contrast, in the central scenario, the interest rate is reduced further in 2021, reaching negative territory in the third quarter, and the Bank purchases an additional £80 billion of gilts through its quantitative easing programme by mid 2022. Further discussion of the risks to debt interest spending is provided in Chapter 5.

### How does forecast debt interest compare historically?

Debt interest spending in the very long run, relative to total government revenue, is shown in Figure 4.14.<sup>5</sup> For the 20 years from 1997 to 2017, the low cost of servicing government debt relative to revenues has been virtually unprecedented historically, and since then it has fallen even further. As a result, in 320 years, debt interest has never claimed such a small share of revenues as it does at present. For much of our past, paying interest on the national debt required a large share of

**Figure 4.14. Debt interest as a share of total revenue in historical comparison**



Note: Financial year basis (breaks in the length of the financial year in 1751, 1800 and 1855).

Source: As for Figure 4.3.

<sup>5</sup> Note that this measure is closely related to, but not exactly the same as, the one used in the government's stated fiscal target to reconsider its investment plans if debt interest payments rise above 6% of revenues. The latter uses the share of *non-interest* revenues.

government revenue (although it is worth noting that the size of the state was also much smaller, and so this amounts to a large share of a much smaller pie). The current low cost of servicing the UK public sector debt means that the high debt burden at present is much less worrying than it would have been at other points in history.

### Scope for an additional giveaway?

The previous subsections have shown that debt interest spending is forecast to remain low due to a low cost of government borrowing and that the biggest driver of the increase in debt over the forecast period is the shortfall in economic activity as the UK economy recovers from the pandemic. This raises the question of whether additional giveaways in the short term could help secure a quicker or more complete recovery and therefore ‘pay for themselves’, leading to only a minimal cost, or even a net benefit, to the public finances.

The answer depends crucially on the size of the immediate boost to demand in the economy from the additional spending, the extent to which this fades over time as other activity is crowded out, and whether additional spending now can lead to a permanent increase in supply later on.

In ‘normal’ times, the OBR assumes that additional investment spending has a multiplier of 1 when it is first introduced.<sup>6</sup> In other words, an additional £10 billion of investment spending – for example, building a new railway line – would generate an additional £10 billion of output. This additional activity would, in turn, generate some additional revenue. The multipliers for spending on day-to-day public services, social security payments and tax cuts are lower, generating £9 billion, £6 billion and £3¼ billion of additional output for every £10 billion of additional fiscal loosening, respectively. This is because some of the money spent (or not raised in taxes) will not boost the UK economy as some will instead either be saved or be spent on imports, thereby limiting the boost to the UK economy from additional consumption.

Crucially, these multiplier effects are assumed by the OBR to be temporary: after four years, prices (including exchange rates, interest rates and wages) adjust to the

<sup>6</sup> Office for Budget Responsibility, 2019b, chart 2.B.

giveaways, leading to the additional spending crowding out some other economic activity and overall demand in the economy being no bigger than it would otherwise have been.

In this scenario, the case for a giveaway would be stronger if the additional spending is thought to have a more permanent effect by raising productivity, and therefore economic performance, in an enduring way. But achieving such effects is easier said than done and even a very effective boost to investment spending of, say, £10 billion could only have a limited impact on an economy that in 2019–20 generated an estimated £2.2 trillion of output.

These are far from normal times, though, and multipliers might differ from their usual size in both the short and the long term. For example, households that have suffered income drops in the last six months might be particularly likely to spend rather than save any tax cuts they receive. On the other hand, if people are very uncertain about the future, they may be more likely to save any additional income instead of spend it.

Perhaps most importantly, if the economy is undergoing a fundamental transition and its post-COVID, post-Brexit structure looks very different from its current structure, there could be greater long-term benefits from spending that successfully helps firms and workers adjust to this ‘new normal’. Examples could include helping firms whose business model relies heavily on European integration pivot to a different way of operating, investment that facilitates productive home working, or retraining for workers in declining sectors.

However, while pay-offs to well-chosen spending may be especially high in the middle of this big transition, these investments may also be riskier than usual. For example, it is not easy to predict what types of retraining would best help workers find a job once the economy has fully adjusted to both Brexit and COVID, and whether investment in faster rail links is going to be as productive as we once thought if widespread home working persists. Moreover, any desire to do investment spending quickly would likely clash with the goal of doing investment spending well: identifying, designing and delivering the right projects in the right way is always a challenge, and even more so if it also needs to be done quickly and in a period of much-heightened uncertainty.

The pandemic may also leave long-lasting scars on the economy by making people believe that further big negative shocks might come down the line. This type of scarring could make consumers more cautious and permanently hurt demand, which could be very costly for future growth (see Chapter 2 and Kozlowski, Veldkamp and Venkateswaran (2020)). Additional spending might make the experience of the pandemic less traumatic, reassure consumers that there is a safety net in place beyond their personal savings, and so reduce the instinct to save rather than spend. This could have a long-lasting pay-off for the economy as a whole. In addition, preserving jobs that will still be viable after the crisis – a clear aim of the government’s Coronavirus Job Retention Scheme and, to a lesser extent, the Job Support Scheme – could strengthen the recovery by avoiding the loss of investments in job-specific skills, training and the employer–employee relationship. However, these pay-offs, while potentially important, are also of uncertain scale.

## 4.5 The long-term outlook

We have seen that the sharp reduction in economic activity caused by the public health response to the coronavirus pandemic, and the fiscal measures implemented to support public services, households and employers, are causing a huge increase in borrowing in the current financial year. In the long run, this one-off increase in debt matters far less for the public finances than the scale of the economic recovery (or otherwise) and the ongoing policy choices that government makes about taxes and spending.

### The debt burden over the next 40 years

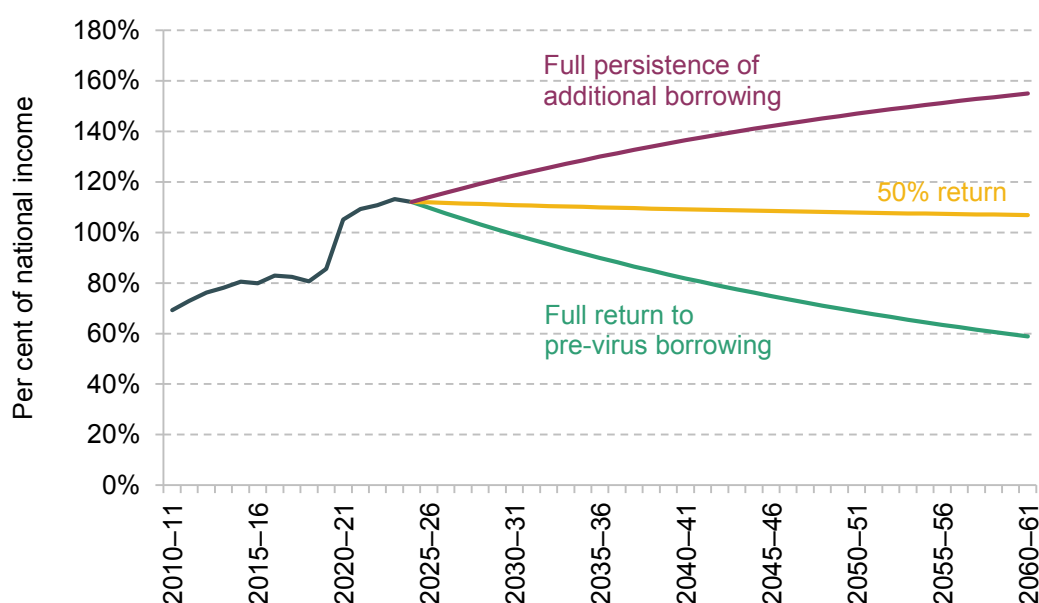
Figure 4.15 shows three potential long-run paths for the debt burden, all of which take as their starting point in 2025 the ‘central’ scenario from Section 4.3. The first debt path, shown in green, assumes that the pandemic only leads to borrowing being elevated temporarily and that any other spending increases (for example, to accommodate the public finance pressures of an ageing population, which we discuss later) or tax cuts are paid for by spending cuts or tax rises. In other words, the primary balance (borrowing excluding debt interest spending) as a share of national income in 2025–26 falls to the level forecast in the March 2020 Budget for 2024–25 and remains at that level thereafter.

Our central scenario from earlier already assumes that there is no more borrowing related to discretionary policy measures by 2025–26, but returning the primary

balance to March 2020 forecasts means also eliminating any extra borrowing due to ongoing economic weakness (which is shown in red, in the medium term, in Figure 4.5). This could either happen naturally (if the economic impacts of the pandemic have disappeared by 2025) or, more plausibly, be the result of tax rises / spending cuts implemented to offset fully the deterioration in the medium-term borrowing position seen since March.

If economic scarring persists at the level that the ‘central’ scenario predicts for 2024–25, that would require a tax rise or spending cut of 4.2% of national income. This is equivalent to £86 billion in today’s terms, and equivalent to, for example, cutting expenditure by around a tenth. For comparison, previous research at IFS has estimated that the fiscal consolidation implemented over the decade following the financial crisis totalled around 10% of national income or roughly £200 billion.<sup>7</sup>

**Figure 4.15. Debt as a share of national income under different assumptions for a post-COVID tightening**



Note: Long-term nominal growth (3.9%) from the 2020 Fiscal Sustainability Report. Effective interest rate assumed constant after 2025.

Source: Office for Budget Responsibility, ‘Fiscal sustainability report – July 2020’, <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/> and authors’ calculations.

<sup>7</sup> [https://www.ifs.org.uk/tools\\_and\\_resources/fiscal\\_facts/fiscal-response-crisis](https://www.ifs.org.uk/tools_and_resources/fiscal_facts/fiscal-response-crisis).

Even if lingering consequences of the pandemic were either absent or compensated by additional fiscal tightening, keeping the primary balance at this low level would require absorbing (or finding a way to avoid) other pre-existing spending pressures – arising, for example, from Brexit<sup>8</sup> and the ageing of the population – through tax increases or spending cuts.

We assume that effective interest rates in this scenario remain at the very low level currently forecast by the OBR for 2024–25. This means that, despite having to finance the one-off additional spike in debt taken on during the pandemic and in its immediate aftermath, the government does not spend more on debt interest over the next 40 years than had been forecast in March.

Put together, the reduction in debt interest spending and the large fiscal consolidation would put debt on a decisively downward path as a share of national income. Nevertheless, it would still take until 2040 to return the ratio of debt to national income to the pre-virus level of 80%, and it would not return to the much lower level seen before the financial crisis – where public sector net debt remained below 35% of national income over the decade up to 2007–08 – over the whole of the 40-year projection horizon.

There are, of course, many reasons why borrowing might not return to pre-virus plans. The likelihood of no persistent weakness in the economy is remote given that many will unfortunately experience unemployment, some otherwise viable businesses will fail, and the pre-COVID structure of the economy will need to adapt to any permanent shifts in working patterns and consumer behaviour. There will also be post-COVID pressures for additional public spending in areas such as the NHS (see Chapter 6), to deliver the government’s ‘levelling-up’ agenda (Chapter 7) and on working-age social security (see Chapter 8). The government may decide against implementing tax rises or spending cuts to maintain borrowing at its pre-pandemic forecast, and prefer instead to accommodate at least some of the additional borrowing. Finally, the government may want to accommodate long-

<sup>8</sup> In addition to its expected indirect cost to the public finances, Brexit generated a (much more modest) direct fiscal saving from the reduction and eventual fading-out of the UK’s EU contributions under the Financial Settlement. This saving has already been ‘recycled’ into domestic spending under March Budget plans. Beyond the Budget horizon, remaining planned transactions (mainly relating to pension liabilities and the repayment of UK capital in the European Investment Bank) will have only a small impact on the public finances, amounting to less than £0.5 billion a year and further decreasing over time.

standing spending pressures that existed before the pandemic, in particular those related to the ageing of the population – a point we will return to later.

The other two debt paths in Figure 4.15 show two illustrative scenarios where borrowing does not return to pre-virus plans. In one, there is no fiscal consolidation beyond the end of the five-year forecast horizon, and additional borrowing is left unchecked (labelled ‘full persistence of additional borrowing’ and shown in purple). This leads to a rising debt burden over the whole 40-year projection horizon. A scenario such as this, where debt is allowed to increase continuously over this period even before allowing for any further adverse shocks, is unlikely to prove sustainable. And this is a scenario where interest rates are assumed to remain very low. Were investors – especially foreign investors, who most obviously have other options – to take the decisively upwards path of debt as a sign that the UK government was not serious about the prudent management of the public finances, they could demand a higher price (interest rate) for lending to it. This would push up debt interest spending and worsen the outlook for debt. Tax rises or spending cuts would almost certainly have to be implemented in response.

The other alternative scenario shown in Figure 4.15 is one in which half of the increase in borrowing seen since March is accommodated while half is offset with a combination of tax rises and spending cuts (labelled ‘50% return’ and shown in yellow). This would imply a fiscal tightening of 50% of the £86 billion required in the ‘full return to pre-virus borrowing’ scenario (2.1% of national income instead of 4.2%). Reflecting a compromise between a very strict and painful fiscal tightening, and a full accommodation of the forecast increase in borrowing since March, it is perhaps the most plausible of the three scenarios. Under this scenario, debt as a share of national income would broadly level off but it would not be on a decisively downwards path, even despite the assumption that interest rates remain very low throughout the next 40 years.

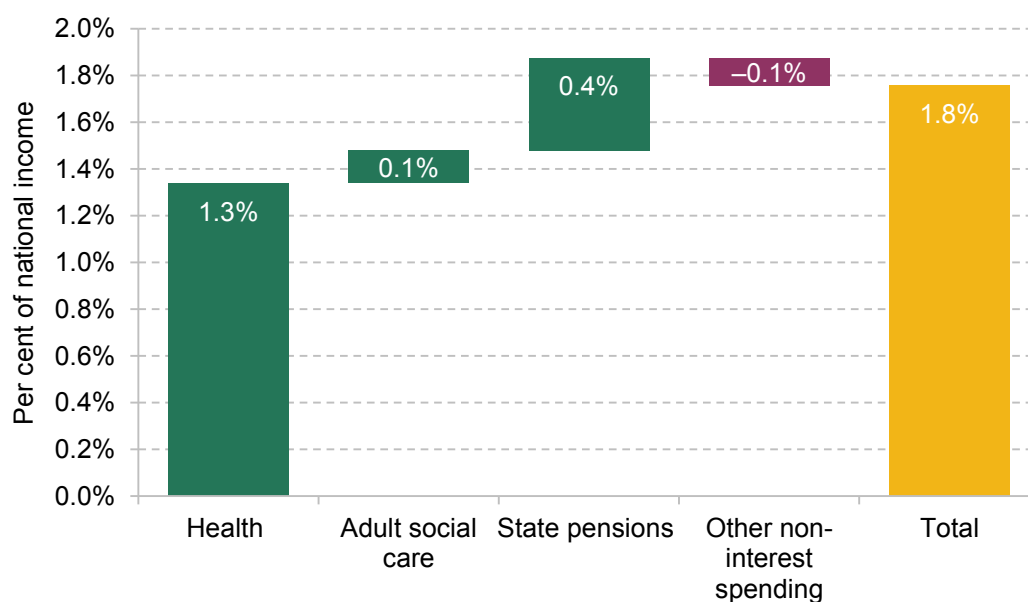
### Projected public finance implications of an ageing population

Even if any longer-term post-COVID increase in public sector net borrowing is fully and immediately offset by tax increases or spending cuts, maintaining borrowing at this level over the long run would still be a challenge. In particular, the ageing of the population is projected to put upwards pressure on public spending, and if this is to be accommodated while holding borrowing down then a combination of cuts to spending in other areas and increases in tax will be needed.

Much of the projected growth in costs is related to the ageing of the population through rising life expectancy at older ages and reductions in the birth rate. In addition, the OBR's most recent long-term projection assumes lower immigration, which also contributes to population ageing since immigrants are younger than natives on average.

Since older people typically require more, and more expensive, health care and are also much heavier users of social care, population ageing is expected to drive up health and social care costs. In addition, there are non-demographic cost pressures. In particular, new medical technologies and drugs – while delivering many benefits – are often expensive, at least initially. On top of this, more people are being treated for chronic conditions (including diabetes and dementia), especially for multiple chronic conditions at once; this trend is expected to continue and drive up the cost of care. In contrast, scope for cost-saving innovations – in particular, any kind of automation reducing the need for labour inputs – has historically been limited in the health and social care sector, and so new cost-saving developments are not expected to offset these spending pressures (Johnson et al., 2018).

**Figure 4.16. Projected per-decade spending increase in areas affected by an ageing population**



Source: Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

The latest projections from the OBR's Fiscal Sustainability Report for the per-decade increase in cost in areas that are affected by population ageing over the next 50 years (which also include the non-demographic cost pressures in health and social care) are shown in Figure 4.16. Together, if ageing and cost pressures are accommodated (so that on top of non-demographic cost pressures in healthcare, age-adjusted spending per capita grows in line with per-capita national income), these pressures could see spending on health and social care rise by 1.5% of national income each decade. Of this, 1.3% of national income is from healthcare.

The other area where the ageing of the population is projected to increase spending substantially is state pensions. The OBR projects that spending will rise by an average of 0.4% of national income a decade over the next 50 years, despite increases in the state pension age over this period. One key driver of the increase in projected state pension spending is the 'triple lock', whereby each year the state pension is increased by the greatest of growth in earnings, growth in prices or 2.5%. This means that the value of the state pension 'ratchets up' over time, growing at least as fast as earnings each year and sometimes faster. Previously, the OBR has estimated that just over half of the projected increase in state pension spending as a share of national income is due to the triple lock<sup>9</sup> and highlights that, at some point, the triple lock will need to be abandoned: it will not be possible over the very long run to increase the state pension more quickly than growth in average earnings.

Modestly offsetting the projected pressures for increased spending on health, social care and state pensions is a projected fall in spending in other areas. In particular, spending on education is projected to fall slightly due to a fall in pupil numbers. Overall, population ageing – and the cost pressures within the healthcare system – are projected by the OBR to add an average of 1.8% of national income to spending each decade over the next 50 years.

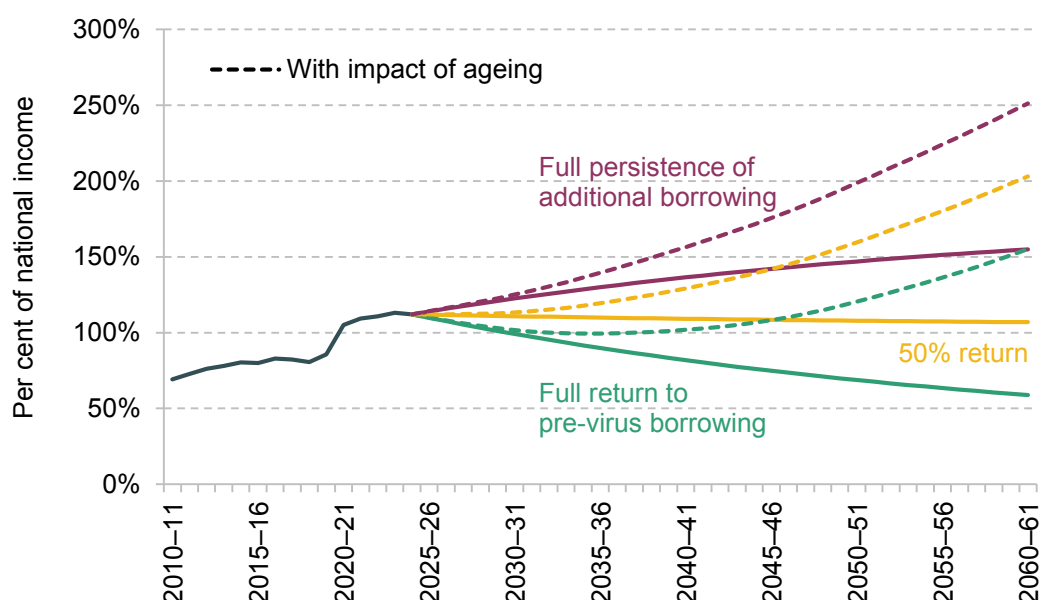
In Figure 4.17, we show the same three scenarios as in Figure 4.15 – a full return to pre-pandemic borrowing, a 50% return, and full persistence of additional borrowing. These are shown by the three solid lines. The three dotted lines then add on what would happen to debt were the projected increase in public spending in areas related to ageing to occur, and if this additional borrowing were accommodated through additional higher borrowing – in other words, if

<sup>9</sup> Office for Budget Responsibility, 2018, chart 3.14, p. 83.

policymakers were to attempt to allow this increase in spending to occur and not offset it with spending cuts elsewhere or increased taxes. Even if lingering effects from the pandemic were fully compensated by tax rises or spending cuts, the spending pressures on health, social care and pensions would be enough to put the debt burden on a rising path (shown by the green dashed line). Essentially, this shows that population ageing meant that some combination of tax rises and spending cuts was required even prior to the pandemic. The economic weakness from the pandemic means that an even larger fiscal consolidation is needed if we do not want debt rising over the next 40 years – even with the benefit of the current ultra-low interest rates.

Table 4.2 shows the tightening required to return debt as a share of national income to 80%, approximately its pre-pandemic level, in 40 years' time. There is no particular reason to require debt to return to this level, so we also show scenarios under which debt would remain at 100% of national income. These make clear the potentially enormous scale of the challenge of putting debt on a decisively falling path. As in Figures 4.15 and 4.17, this assumes that the effective interest rate

**Figure 4.17. Projected debt as a share of national income under different assumptions for a post-COVID tightening and accommodating the impact of ageing**



Note and source: As for Figure 4.15.

**Table 4.2. Fiscal tightening required to return debt to 80% or 100% of national income in 40 years**

	Return to 80%		Return to 100%	
	In today's terms	As % of national income	In today's terms	As % of national income
<b>Excluding the projected impact of pressures in areas affected by ageing</b>				
Optimistic scenario	£6bn	0.3%	–£12bn	–0.6%
Central scenario	£67bn	3.3%	£49bn	2.4%
Pessimistic scenario	£111bn	5.6%	£94bn	4.7%
<b>Including the projected impact of pressures in areas affected by ageing</b>				
Optimistic scenario	£93bn	4.5%	£75bn	3.6%
Central scenario	£154bn	7.5%	£136bn	6.6%
Pessimistic scenario	£195bn	9.8%	£177bn	8.9%

Note and source: As for Figure 4.15.

remains at the low level we currently expect for the end of the medium-term projection in 2024–25, and that the economy grows in line with the OBR's long-run projection.

The large variation across scenarios once again illustrates the importance of the strength of the medium-term recovery and also the scale of the public finance challenge from an ageing population. The top panel of Table 4.2 ignores spending pressures in areas affected by ageing, while the bottom panel incorporates these spending pressures.

Ignoring ageing pressures and taking the optimistic scenario, the required consolidation of £6 billion – at 0.3% of national income – is modest. In contrast, in the pessimistic scenario, a very large consolidation of £111 billion would be required – almost 20 times as much as in the optimistic scenario. The numbers are also sensitive to the desired target level of debt: under our optimistic scenario, debt

could be kept at 100% of national income without any further fiscal consolidation. Under the central scenario, putting debt on a path to reach 80% of national income in 40 years would, excluding population ageing, require a tightening of £67 billion.

Allowing for projected spending pressures in areas affected by ageing adds considerably to these numbers. To put debt on a path to reach 80% of national income in 40 years' time would require a fiscal tightening of £154 billion under our central scenario. While it is much lower under our optimistic scenario, it is still close to £100 billion; under our pessimistic scenario, the required tightening is almost £200 billion. Even taking the optimistic scenario and settling for debt in 40 years' time to be 100% of national income would require a fiscal tightening of £75 billion.

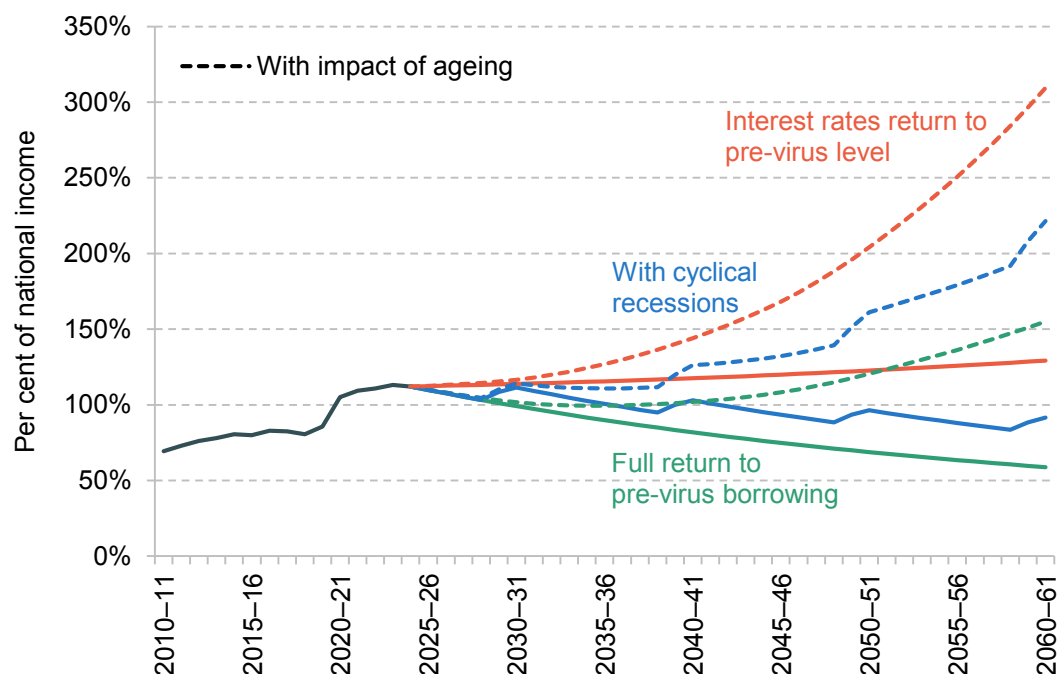
### Risks around the long-run path of debt: how will growth and interest rates evolve?

Of course, in practice, public sector net debt will not follow the projected paths shown in Figure 4.17. The amount of borrowing the government does each year will not be a fixed share of the economy,<sup>10</sup> the size of the existing debt stock as a share of national income will vary with fluctuations in the annual growth rate, and the amount spent on servicing that debt will change as interest rates change. Therefore, there are risks – to the upside as well as to the downside – around each of the projections shown in Figure 4.17. The assumptions made over the path of growth and interest rates (and specifically the relationship between the two) are particularly important when debt is elevated.

In Figure 4.18, we repeat the optimistic projection for the path of debt, shown in green in Figure 4.17, where borrowing is assumed to return in the medium term to that forecast in the March 2020 Budget – either without the projected costs of increased spending in areas affected by ageing (shown by the solid line) or with them included (as shown by the dotted line). We also present two alternative scenarios, both of which are less rosy about the future. In the first one, shown in blue, growth turns out lower (but interest rates stay at their same low level); in the second (shown in red), interest rates turn out higher (but growth is left unchanged).

<sup>10</sup> Strictly, the primary deficit – that is, borrowing excluding spending on debt interest.

**Figure 4.18. Risks to the projected path of debt even if borrowing returned to pre-pandemic path, accommodating the impact of ageing**



Note: Primary balance returns to March Budget plans (0.78%) in every scenario and remains there ever after. Nominal growth 3.9%, except in recession years in the relevant scenario. Effective interest rate constant after 2025 at level expected in 'central' medium-term scenario, except in 'interest rates return' scenario.

Source: As for Figure 4.15.

In the first scenario, we assume that instead of growth following a smooth path, it is periodically interrupted with recessions. The OBR estimates that the chance of a cyclical recession in any five-year period is about one-in-two; therefore we assume that the next recession hits in 2029–30 and then one hits every decade thereafter. These stylised recessions see real output shrink by 1.7% in the first year and by 0.2% in the second, which is the average of the three cyclical recessions in the early 1980s, early 1990s and late 2000s. These recessions – which are not intended to illustrate financial crises or the current recession induced by the public health response to a pandemic – increase borrowing via the automatic stabilisers (lower tax revenues and higher working-age social security spending). However, there is no discretionary response (in either direction) from government. This means that the ratcheting-up of debt during these recessions is moderate compared with what occurred on average during the last three recessions (and especially so when compared with the recession following the financial crisis, which was associated

with very low inflation and hit relatively tax-rich parts of the economy especially hard). Much less optimistically, outside of recession years, the economy is assumed to grow at the same rate as in the baseline scenario, which is itself a weak growth performance.

Under these assumptions – and assuming that the public finance pressures of an ageing population do not add to borrowing – the reductions in debt in the ‘good’ years are still sufficient to reduce the debt burden over the very long run, but only at an extremely slow pace: even by the late 2050s, it would still not have returned to its pre-COVID level of 80%. But adding in the projected public finance pressures of an ageing population puts debt on a rising path.

The ‘cyclical recessions’ scenario presented above is in some respects relatively pessimistic about future growth as it assumes the long-run OBR growth rate in eight years of every decade but has a lower growth rate in the remaining two years when a recession hits. So essentially the scenario assumes a ‘bust’ without a ‘boom’. But our assumption of a ‘typical’ recession (in terms of the hit to growth) every decade might not be so pessimistic given that a clear lesson of the period since 2007 is that atypical, but very adverse, shocks will also periodically come along. After all, with the financial crisis and the COVID-19 pandemic, the UK public finances have seen two large shocks arrive within little more than a decade. The OBR suggests that a financial crisis might be expected to happen once every 50 years, while the last global pandemic was the Spanish Flu of 100 years ago. As we have shown, the financial crisis and the COVID-19 pandemic will have pushed public sector net debt up from around 35% of national income in 2007–08 to over 100% in 2020–21. There are few – perhaps no – plausible scenarios that could have a positive effect on the public finances of a similar magnitude, and at least some events that would have a large negative effect might now be expected to happen more frequently than in the past – for example, due to climate change or increased vulnerability to infectious diseases due to travel patterns and antimicrobial resistance.

The elevated level of debt compared with 2019, let alone with 2007, makes the public finances vulnerable to interest rate increases that are not accompanied by faster growth and higher tax revenues. To illustrate this, the final scenario in Figure 4.18 again assumes that borrowing (excluding interest spending) is returned to that forecast in March 2020 – with or without the projected spending pressures in areas affected by ageing adding to borrowing – and that growth follows the latest OBR projections, but now assumes that the effective interest rate on government

borrowing also returns to its pre-virus forecast for 2024–25 (as set out at the Budget in March 2020) and that it remains at this (still historically very low) level for the next 40 years.

Under this scenario, and despite the fact that interest rates would still remain extremely low by historical standards (and much lower than the level they are assumed to reach by the OBR in its Fiscal Sustainability Report), debt would not be on a falling path even if we exclude any possible increase in borrowing arising from an ageing population.

This highlights the vulnerability of the public finances to even modest increases in interest rates that are not associated with stronger economic growth. Under this scenario, the stock of additional debt accumulated during the current crisis (and the interest that would need to be paid on it) would mean that overall public sector net debt would rise over the next 40 years even if borrowing beyond 2024–25 were held at the level forecast in the March 2020 Budget for 2024–25.

While the increase in effective interest rates on government borrowing in this scenario is large in absolute terms – they are assumed to rise from 1.0% a year to 1.8% – they would still be low by historical standards. Moreover, with the economy assumed to be growing in nominal terms by 3.9% per year, the relationship between growth and interest rates is very favourable to the public finances by historical standards (the interest-rate–growth differential ‘ $r-g$ ’ is much more negative than has usually been the case in the UK<sup>11</sup>). In contrast, the OBR assumes that this relationship returns to its long-run average such that effective interest rates rise to 4.1% (‘ $r-g$ ’ rises to +0.2). As a result, the projected debt paths in the OBR’s July 2020 Fiscal Sustainability Report (chart 4.5) are more explosive than those shown in Figure 4.18. Such an interest rate rise is by no means implausible, though it would be much higher than is implied by the current long-run interest rates on government borrowing; this fact underpins the recommendation that we make in Chapter 5 that a much higher proportion of gilt issuance over the next few years is done on a long-term basis.

Figure 4.18 also reiterates the point made in Figure 4.17 that the spending pressures associated with an ageing society make the challenge of keeping debt on a

<sup>11</sup> Office for Budget Responsibility, 2019a, chart 7.6, p. 209.

sustainable path much greater. If these spending pressures were accommodated through higher borrowing and interest rates rose modestly (the dotted-line version of the last scenario), debt would be projected to rise to over three times national income by 2060.

There is no ‘magic’ ratio of debt to national income where the debt burden suddenly becomes unsustainable. However, none of the major UK political parties has suggested purposefully placing debt on what would be projected to be an ever-increasing path (at least for the next 40 years) and that would certainly be a risky strategy.

While there is currently spare capacity in the economy, this can patently not be true forever, and inflationary pressures will eventually return. At that point, interest rates will have to rise if the central bank remains committed to its inflation target. If we instead follow the prescriptions of Modern Monetary Theory and engage in monetary financing, that framework still prescribes tax rises (or spending cuts) to siphon off excess demand from the economy and bring inflation under control once spare capacity is exhausted. So either way, we would see a fiscal tightening – and a rise in interest rates – once spare capacity in the economy was eliminated.

The government could be forced to embark on such a consolidation in a sudden and disorderly way if inflation and interest rates rise. Trust in the monetary and fiscal institutions could be damaged, and difficult to rebuild. Consolidation might therefore be more efficient and less painful if its size and timing are planned, rather than forced by events.

The amount of fiscal tightening necessary to stabilise the debt burden, or bring it back down to benchmark levels, will hinge on what happens to growth and interest rates. With a less favourable relationship between the two, fiscal sustainability will be harder to achieve; a more favourable relationship would make it much easier. This is discussed in more detail in Chapter 5.

## How has the UK reduced a high debt burden in the past?

At a basic level, reducing a high debt burden over time requires the stock of debt to grow less quickly than the economy. One way to reduce debt is to increase taxes or cut spending in order to reduce borrowing, and therefore the growth in the debt stock. Another is to have higher growth. Growth in real output can always fulfil this

role, and surprise inflation (which is not priced in to interest rates) will also reduce debt as a share of national income if debt is issued in nominal terms.<sup>12</sup>

Between 1815 and the end of the 19<sup>th</sup> century, the government ran a fiscal surplus in three out of every five years (as was shown in Figure 4.3), and any borrowing was typically modest in size, allowing debt over this period to be paid down (Ellison and Scott, 2017). This was seen in the fall in debt as a share of national income over most of the 19<sup>th</sup> century that was shown in Figure 4.11.

In the 20<sup>th</sup> century, the relationship between interest rates and growth mattered more for the trajectory of debt than fiscal strategy. After the First World War, the government ran large surpluses, but was nevertheless unable to reduce debt substantially as a share of national income during an unpleasant period of deflation. Following the Second World War, on the other hand, debt fell rapidly as a share of national income mainly as nominal growth was high and interest rates were low. High nominal growth was in part due to inflation unexpectedly being much greater than it had been in the past. Alongside this, the institutional and policy environment was designed to keep interest rates low: for much of this period, interest rates were set with at least one eye on the management of the national debt rather than achieving an inflation target. In addition, capital controls prevented investors choosing alternatives elsewhere (Crafts, 2016).

### How have other advanced economies reduced public debt in the recent past?

These episodes of debt reduction in the UK are now fairly distant, but we can also consider more recent episodes of substantial consolidation in other advanced countries. Figure 4.19 shows 10 advanced economies that have reduced their debt-to-GDP ratio by 10% of national income or more over a decade, since 1980. Table 4.3 gives selected fiscal and economic indicators for these countries. Clearly, the circumstances these countries were in enabled a number of different strategies to achieve this reduction in the debt burden.

<sup>12</sup> The fact that the UK has a relatively high share of index-linked gilts makes this less of an option than for other countries – or indeed than it was in the UK prior to 1980. See Chapter 5.

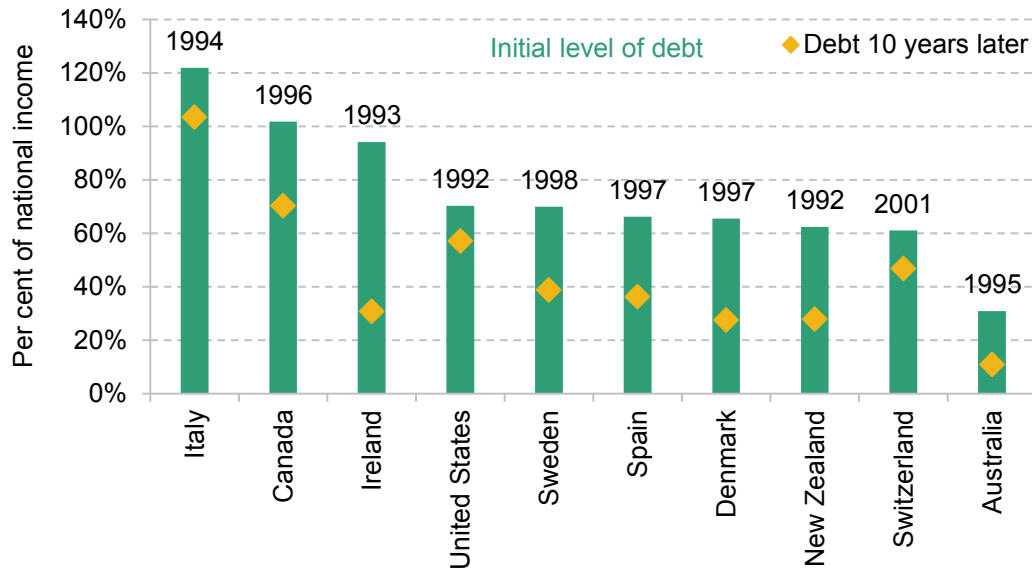
**Table 4.3. Selected fiscal and economic indicators (as a % of national income unless otherwise stated) for countries that reduced debt**

	Change		Average		
	Revenue	Primary spending	Interest spending	Growth rate (%)	Inflation (%)
Italy 1994–2004	–0.4	0.6	4.8	1.7	3.0
Canada 1996–2006	–3.0	–2.5	4.3	3.3	1.9
Ireland 1993–2003	–8.4	–6.1	1.2	7.5	4.5
United States 1992–2002	–0.8	–2.1	2.8	3.2	1.9
Sweden 1998–2008	–5.8	–4.2	1.6	3.2	1.6
Spain 1997–2007	3.5	0.6	1.6	3.8	3.5
Denmark 1997–2007	–0.5	–2.4	1.6	2.1	2.2
New Zealand 1992–2002	–6.1	–9.5	1.8	3.5	1.7
Switzerland 2001–2011	–0.8	–0.1	0.4	1.7	1.0
Australia 1995–2005	1.8	–0.3	1.4	3.8	2.6

Note: ‘Interest spending’ is interest paid on public debt. ‘Growth rate’ is the real GDP growth rate in %. Countries are listed in order of initial debt burden.

Source: IMF Global Debt Database.

**Figure 4.19. Selected international examples of recent substantial reductions in debt as a share of national income**



Note: Debt is gross public debt.

Source: IMF Global Debt Database.

Ireland, New Zealand and Sweden all cut spending substantially. However, in Sweden, even after these cuts, government expenditure excluding debt interest still exceeded 50% of national income, so the initially high level of spending might have made it relatively easy to cut spending so substantially. Only two countries out of our 10 examples (Spain and Australia) increased the share of national income that they raised in taxes and other government revenue.

Ireland in particular stands out as having been able to slash its debt-to-GDP ratio relatively easily thanks to a period of extremely high economic growth (averaging 7.5% a year in real terms) alongside high inflation (averaging 4.5% a year). In part, this strong growth was made possible by Ireland having relatively low national income to start with; it was also boosted by favourable demographics and increasing female labour supply, and by relatively strong growth over the period 1993 to 2003 in the neighbouring UK (with which Ireland does much trade). It is clear that this does not provide a feasible blueprint for the UK to copy in the 2020s or beyond. But growth at more modest, but still healthy, levels can also contribute to outgrowing a high debt burden: six of the other countries that we consider also grew at more than 3% a year in real terms on average over the period.

The burden of financing the debt was also very different between countries: Switzerland spent less than ½% of national income on interest on average, whilst Italy, which started with a much higher initial debt burden and faced higher interest rates, had to spend almost 5% of its national income on servicing its debt.

## 4.6 Conclusion: a new fiscal strategy?

It is abundantly clear that the Conservative Party's manifesto commitment to reduce debt as a share of national income over the current parliament will be missed by a wide margin. Its other fiscal targets are also already in tatters. Investment spending this year will breach the government's 3% of national income cap, due to depressed national income and the new business loans scoring as investment spending, while the current budget – that is, borrowing which is not explained by that used to finance investment spending – will not be forecast to be in surplus in three years' time. Abandoning these commitments would therefore merely be a matter of recognising reality. No fiscal target will be appropriate in every situation. And any fiscal target set in 2019 with the intention of playing a useful role in tying the hands of policymakers would be unlikely to have survived 2020 intact.

The public finance forecasts presented in this chapter show that, under all three scenarios that we consider, borrowing will this year reach the highest level seen in the UK since at least 1700, outside of the two world wars. Under current policy, with the temporary measures put in place in response to COVID-19 largely set to expire in or before April 2021, borrowing will fall between this year and next. But it will then remain elevated for several years to come. What is really not certain is how elevated it will be. Under our central scenario, borrowing in 2024–25 is forecast to be £151 billion, compared with a March 2020 Budget forecast of £58 billion. In our optimistic scenario this falls to £91 billion, while in our pessimistic scenario it rises to £201 billion. It could easily fall outside of this range.

Public sector net debt has already risen above 100% of national income in August 2020, up from 80% in 2018–19 (and from 35% in 2007–08). Over the next few years, under our central scenario it is forecast to rise to over 110% of national income, under our optimistic scenario it remains around 100% of national income, while under our pessimistic scenario it rises further to almost 130% of national income.

To say that there is now huge uncertainty over the likely evolution of the economy and the public finances is an understatement. The evolution of the virus, and our ability to contain it, will be an important factor in the degree to which the economy can make a swift and full recovery. But with rising unemployment, some otherwise viable businesses failing, and seemingly likely permanent large changes in ways of working and consumer preferences, it will be many years before the economy will be as productive as it would have been had the virus not hit (if ever). The harder question is quantifying how full or, on the flip side, how incomplete the recovery will be. There is also considerable uncertainty over what the UK's trading relationship with the EU – our nearest trading partner, and one of our richest ones – will be in less than three months' time. The size and scope of tariff and non-tariff barriers between the UK and the EU from January 2021 will be an important determinant of how economically damaging Brexit turns out to be.

This uncertainty means that now really is not the time to announce yet more new fiscal targets or set out a detailed fiscal consolidation strategy to reduce borrowing in response to much-elevated government debt. Both should follow in time. But in both areas, decisions should be left until the Autumn 2021 Budget at the earliest.

Instead, in the Spring 2021 Budget – or perhaps even sooner than that – the Chancellor ought to set out the broad economic strategy he intends to follow. A key part of this strategy should be ensuring confidence in the policymaking process. One key pillar is the Office for Budget Responsibility. Mr Sunak should recommit to its independence and to the important role it plays in scrutinising the public finances. Should further sizeable fiscal events be necessary, the OBR should be asked to interrogate the costing of policy measures while they are in preparation. This unfortunately did not happen before the Chancellor's substantial July 2020 Summer Economic Update, which contained measures that the OBR subsequently costed at £50 billion in 2020–21; and neither did it happen with the Chancellor's Winter Economic Plan which was released without even Treasury costings, let alone costings that had been scrutinised by the OBR.

Currently, the government can borrow at exceptionally low interest rates – as highlighted by the fact that forecast debt interest has fallen since March despite forecast government borrowing being much higher. This means that we should be willing to borrow to fund further measures if they are temporary and if we are confident that they can secure a more complete economic recovery.

The Chancellor will also need to make decisions over whether any of the temporary measures put in place since the pandemic should be extended in some form. While perhaps most attention has been focused on the Coronavirus Job Retention Scheme and its replacement with the Job Support Scheme, there are also decisions to be made on measures such as the additional support for local authorities and the temporary boost to working-age benefits. The latter – which is discussed in detail in Chapter 8 – cost £9 billion in 2020–21 and, while it could be allowed to expire, this would leave many low-income families seeing a sizeable fall in their income between March and April 2021. The Chancellor will also need to set departmental spending plans for at least 2021–22, which will involve many tricky decisions not least over what the NHS budget should be. So spending in 2021–22, and beyond, could easily be higher than the scenarios in this chapter assume.

Until there is more certainty about the scale of consolidation required, it would not be appropriate to start announcing the size, timing or nature of future tax rises (let alone to start implementing them anytime soon, given current weakness in the economy). However, Mr Sunak should champion a more general recognition that, once the economy has been restored to health, a fiscal tightening will follow.

At that point, the government will face unattractive choices over a combination of spending squeezes and tax increases. Spending cuts are one option. But with many public services already showing signs of strain after a decade of cuts (Chapter 6) and the working-age benefit system made considerably less generous by reforms implemented during the 2010s, it is not clear whether further cuts would be acceptable to voters or consistent with the government's stated objectives. This suggests that tax rises are likely. If so, another key part of the appropriate fiscal strategy will be to ensure that these are well designed so that they do not do more economic harm than is absolutely necessary.

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# 5. Managing much-elevated public debt

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## Key findings

- 1 The COVID-19 crisis has pushed up government borrowing substantially, meaning that the Debt Management Office (DMO) will need to sell a much larger value of gilts than normal. **Our central scenario is for over £1.5 trillion to be raised through gilt issuance over the next five years, double the £760 billion forecast in the March 2020 Budget.** There is considerable uncertainty around this amount.
- 2 The characteristics of the gilts that the DMO issues will have implications for the public finances in the longer term. **The enormous value of debt being issued means that the costs of financing it just slightly wrong will be large.**
- 3 Short- and long-maturity gilt yields have fallen even further from the already low rates seen prior to the pandemic. A similar phenomenon can be seen in the Eurozone and the US, where – as in the UK – **yields are now much closer to the very low rates that have become typical for Japan.**
- 4 The expansion of the Bank of England's programme of quantitative easing means it bought £236 billion of gilts between March and September 2020, almost exactly the same as the £227 billion of gilts issued by the DMO over the same period. As a result, **private borrowing has not been crowded out by**

**government borrowing.** The financing cost of quantitative easing is Bank Rate, which is at record low levels, and has therefore further depressed government debt interest spending from already record lows as a share of receipts. However, **the tilt towards Bank of England held debt means that the government's debt interest bill will rise sharply if Bank Rate rises.**

- 5 A much larger share of the UK's debt is linked to an inflation index than is the case for many other countries. About a quarter of its debt is index-linked, compared with an average of 3–8% across OECD countries over the last decade. It also borrows on a longer time frame with an average maturity of over 15 years compared with, for example, less than 9 years in France, Germany, Italy and Spain. But quantitative easing reduces the effective maturity of government borrowing. This – combined with elevated issuance over the next five years – means that **a 1 percentage point increase in all yields would now add £19 billion to debt interest spending in 2024–25, some 76% higher than the £11 billion forecast in March 2020.**
- 6 Rising yields accompanied by stronger growth would be welcome. The risk to the public finances is that yields rise but growth prospects do not. **One way to address this risk is by selling more long gilts.** Long-term rates are extraordinarily – some would say unsustainably – low. Even 50-year gilts are consistently offering just 0.5% a year since April 2020. In the long run, we might expect inflation to return to the target level of 2% which, when combined with a nominal return of 0.5% a year, would imply a real annual return of –1.5% a year.
- 7 The latest auction of long-maturity index-linked gilts led to £459 million being raised at a real yield to maturity (based on RPI indexation) of –2.0% a year through to 2056. **Contrary to the direction of recent policy, there could be considerable benefits from tilting the UK's debt portfolio more towards index-linked gilts.** This would have the advantage of locking in

the current very low real rates for a greater share of government debt.

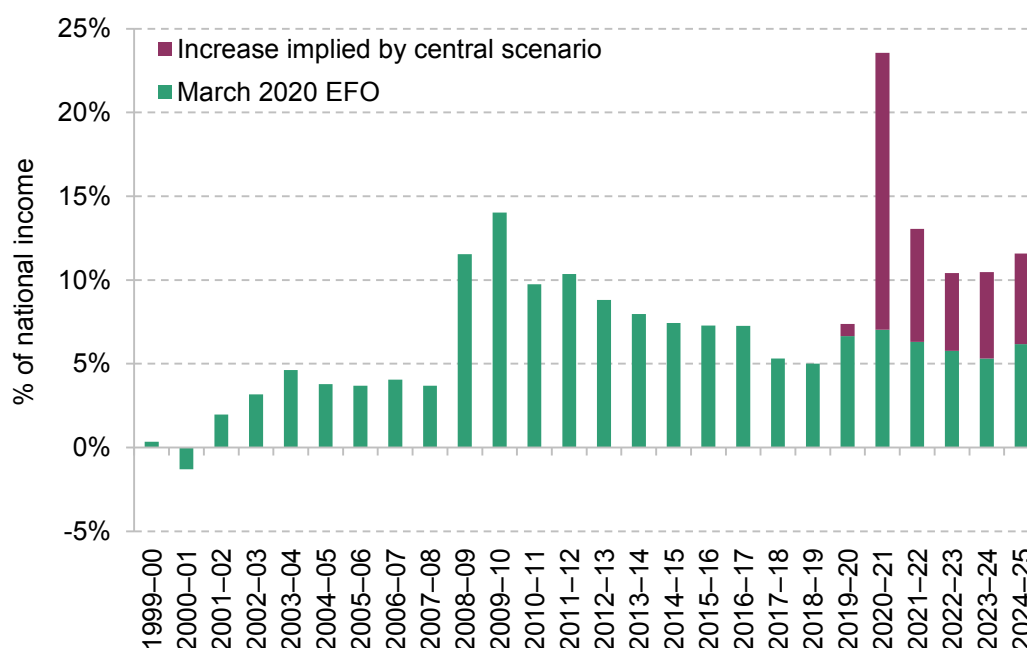
- 8 Changes – or even just a perceived appetite for changes – to the institutional structure of UK fiscal and monetary policy could put upward pressure on the risk premium for gilts, even if the underlying natural rate of interest, and expected growth, remain very low. **It will be particularly important to maintain the credible independence of the Monetary Policy Committee in setting monetary policy**, since the government has a more direct stake in Bank Rate now that it has more effect on its debt interest bill.
- 9 The Chancellor needs to signal that he takes the long-run health of the public finances seriously, that he fully respects the independence of the Monetary Policy Committee, and that he will not water down the inflation target in an attempt to help manage the public finances. **Issuing a larger share of gilts on a long-term, indexed basis could only help to signal that intent.**

## 5.1 Introduction

During the COVID-19 pandemic, sharply reduced economic activity and substantial tax cuts and spending increases to support public services, businesses and households through the lockdown mean that government borrowing will be increased enormously in 2020–21. Continued weakness in the economy will mean it is elevated for some years to come. This is the correct response: a sizeable one-off adverse shock to the public finances should be associated with a large increase in government debt that is allowed to persist for many years. But as a result, the Debt Management Office (DMO) will need to sell many more gilts over coming years. This will make it even more important that the sale of these gilts is designed appropriately with respect to the costs and risks to the public purse, and the needs of the wider economy.

Figure 5.1 shows the likely scale of gross issuance – that is, the combined total of new cash borrowing and the need to refinance existing borrowing as gilts reach their maturity – over the next few years, and how this compares with the period since 1999–2000. The green bars show the issuance forecast by the Office for Budget Responsibility (OBR) at the time of the March 2020 Budget, which was produced largely before any of the economic impact of COVID-19 on the UK economy had become clear. This showed that, having fallen as a share of national income over the period since the 2008–09 financial crisis, issuance had risen slightly since 2018–19. Over the next five years, issuance was already forecast to run about 50% higher as a share of national income than over the five years in the run-up to the financial crisis. This was due to the combined impact of the government no longer attempting to reduce the deficit – being content to finance its desired increases in spending through increases in borrowing – and rising redemptions arising from borrowing done over the previous decade.

**Figure 5.1. Forecast gross financing requirement, March 2020 Economic and Fiscal Outlook (EFO) and central scenario compared**



Source: As for Figure 4.2 plus chart 3.11 on page 100 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

The purple additions on Figure 5.1 give a sense of how substantial the post-pandemic increase in issuance might be, using the outlook for government borrowing presented in Chapter 4 under the central economic scenario prepared by Citi for this Green Budget and outlined in Chapter 2. Under this scenario, we forecast gross issuance to reach 24% of national income in 2020–21 (almost £500 billion). This would be the same as that financed cumulatively over the previous four years, or the total amount financed over the nine years from 1999–2000 to the eve of the financial crisis in 2007–08.

There is obviously a huge amount of uncertainty around these forecasts. Some sense of this is provided in Table 5.1, which compares gross financing, this time in cash terms, under each of the three scenarios for the public finances presented in Chapter 4 alongside the OBR’s March 2020 Budget forecast. Over the five years shown, under our central scenario just over £1.5 trillion would need to be financed, double the £760 billion forecast in the March 2020 Budget. Our different scenarios illustrate that there is a wide range of possible outcomes, with our forecasts ranging from a little over £1.3 trillion to more than £1.8 trillion.

**Table 5.1. Forecasts for gross financing requirement compared (£ billion)**

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
March 2020 EFO	163	152	143	136	163	757
Green Budget central	483	282	237	249	285	1,536
Green Budget pessimistic	507	351	295	302	334	1,789
Green Budget optimistic	476	235	178	190	225	1,305

Source: As for Figure 5.1.

The task of raising this finance, largely through the sale of gilts, will fall to the DMO. Its primary objective is ‘to minimise, over the long term, the costs of meeting the government’s financing needs, taking into account risk, while ensuring that debt management policy is consistent with the aims of monetary policy’. This strategy was set out in July 1995 and has not been changed since (HM Treasury and Bank of England, 1995; HM Treasury, 2020).

But much has changed over the last quarter of a century: public sector net debt has increased from 35% of national income prior to the financial crisis to around 100% of national income today; the Bank of England now has operational independence over monetary policy; there has been a huge expansion in the size of the Bank of England’s balance sheet as a result of its programme of quantitative easing. In the light of these changes, and with much greater issuance over the next few years, a review of the strategy pursued by the DMO would be appropriate.

How government debt is financed will have a number of important implications. These include: the likely cost of financing government borrowing; the sensitivity of the public finances to different types of shocks; the risks that are borne by the private and public sectors; and the incentives faced by different institutions. Discussion in this area is often about the high costs of getting it very wrong, most obviously by creating sovereign debt crises. But the costs of getting it slightly wrong can also be substantial. If gross issuance of £1.5 trillion were done over the next five years at just  $\frac{1}{3}$  of a percentage point higher rate of interest than it needed to be, then this would eventually add £5 billion a year to debt interest spending (equivalent to one-sixth of the total bill in 2019–20).

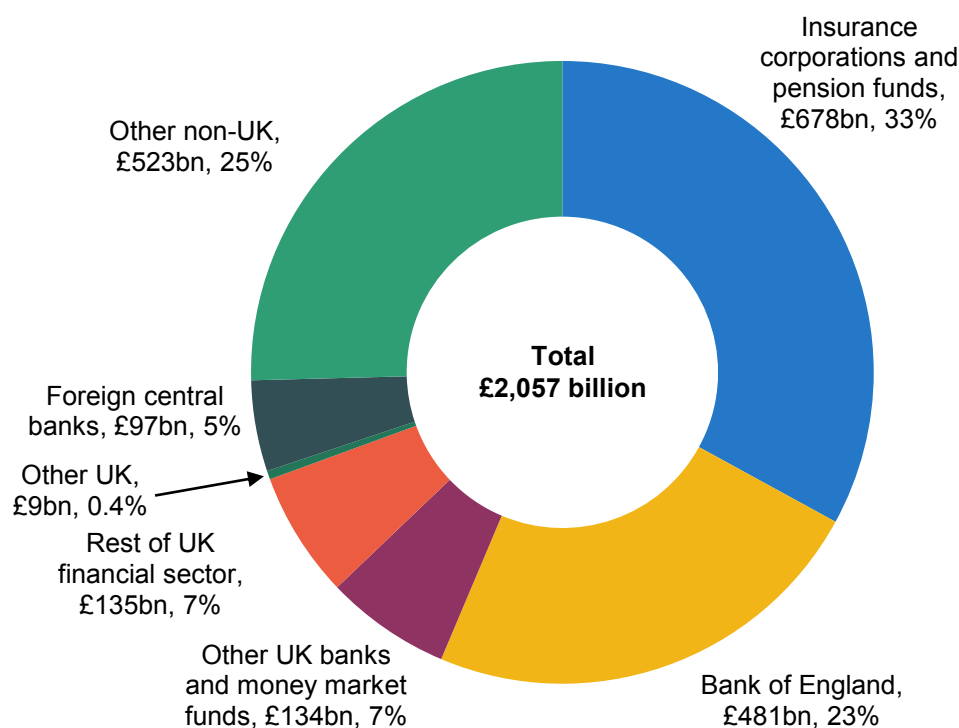
This chapter discusses the cost and composition of UK government debt, how these have changed over time and how they compare with those of other countries. Section 5.2 looks at who lends to the UK government and how this has changed – highlighting the rise in importance of gilts held by the Asset Purchase Facility of the Bank of England as a result of its programme of quantitative easing. This section also sets out how the composition of government debt has – and in some cases has not – changed over time. Section 5.3 documents what has been happening to the price of government borrowing – that is, the interest rate on different types of gilts – in the recent past, and how the markets now expect it to evolve going forwards. Section 5.4 shows how forecast spending on debt interest has, despite the sharp rise in forecast borrowing, actually fallen since March 2020 while the sensitivity of debt interest spending to increases in interest rates has increased

substantially. Section 5.5 concludes with some recommendations for fiscal strategy as we strive to accommodate elevated debt in the best possible way.

## 5.2 From whom does the UK government borrow?

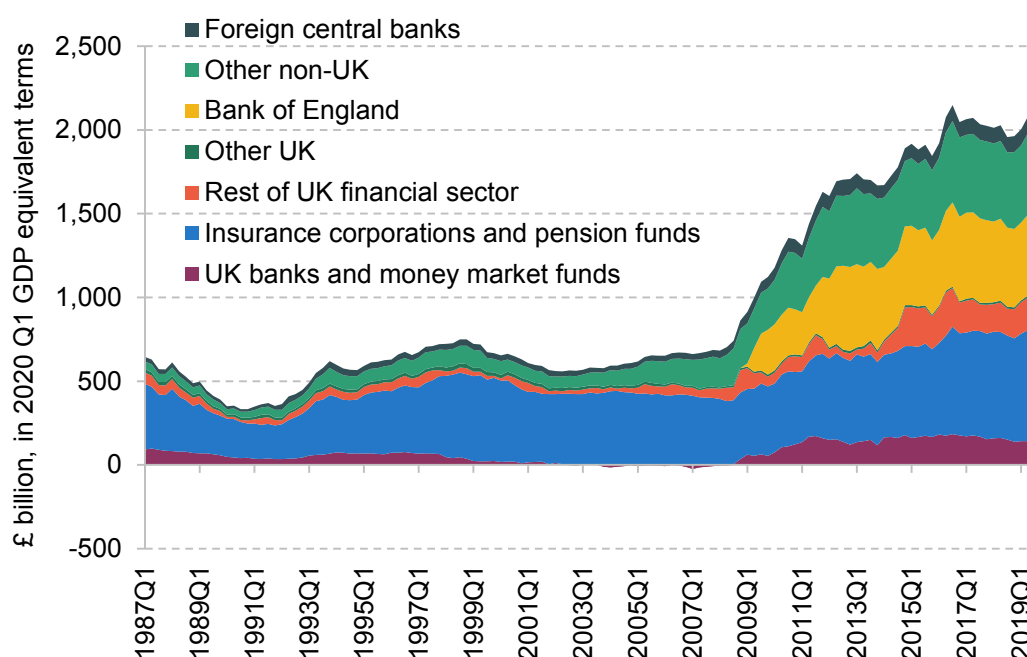
At the end of 2019, before the onset of the COVID-19 pandemic in the UK, outstanding gilts totalled £2,057 billion. Figure 5.2 shows a breakdown of who owned these gilts, while Figure 5.3 shows how the composition of gilt holdings has changed over the period since 1987. At the end of 2019, 30% of gilts were held by foreign investors. Among those, the share held by investors other than foreign

**Figure 5.2. Breakdown of UK gilts by holder, 2019 Q4**



Note: 'Other UK' includes UK households, UK non-profits serving households, UK private and public non-financial corporations, and local government. 'Other UK banks and money market funds' includes building societies.

Source: Office for National Statistics, United Kingdom Economic Accounts: Quarter 1 (Jan to Mar) 2020.

**Figure 5.3. Holders of UK gilts (£ billion)**

Note: Negative values represent repo positions. Values for the Asset Purchase Facility in 2009 Q1 and Q2 are total amounts outstanding on 26 March and 25 June, respectively.

Source: Office for National Statistics, United Kingdom Economic Accounts: Quarter 1 (Jan to Mar) 2020; Debt Management Office, Quarterly Reports 2010 Q1 to 2020 Q1; Bank of England, Asset Purchase Facility Quarterly Report 2009 Q2. Upated to 2020 Q1 terms using growth in nominal GDP (ONS series BKTL).

central banks has increased substantially since 1990 due to increased financial globalisation; it has stabilised at around four-fifths since the mid 2010s.

Among domestic creditors, the biggest gilt holders were insurance companies and pension funds, which held one-third of all gilts on the eve of the pandemic. These institutions have long-term liabilities (specifically, defined benefit pension commitments and annuities sold by insurance companies) and are natural holders of longer-dated gilts which hedge risks. But the share of gilts held by insurance companies and pension funds is much lower than it once was: as recently as 2004, they held three-quarters of all gilts. While their holdings of gilts did grow slightly more than national income over subsequent years, their holdings did not grow as fast as the sharp increase in debt that occurred as a result of the financial crisis.

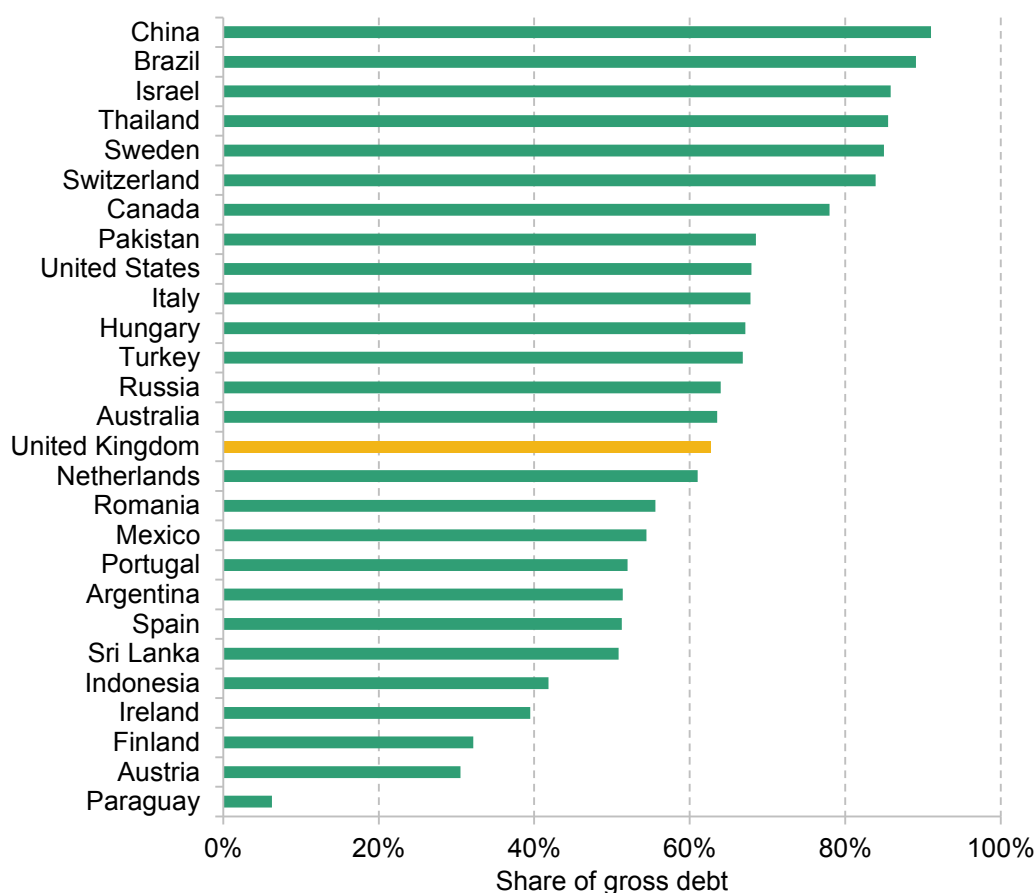
The Bank of England's programme of quantitative easing, which began in 2009, meant that its holdings of gilts accounted for just under a quarter of the overall

stock of gilts by the end of 2019. Expansions of quantitative easing were announced in the years following the financial crisis and also, on a smaller scale, following the EU referendum result (further details of this are provided in Figure 5.5 and the surrounding text later). Whilst decisions to expand quantitative easing are taken in discrete steps, the process of buying the extra gilts takes several months, which is why the Bank holdings in Figure 5.3 do not show stepwise increases. The Asset Purchase Facility also purchases new gilts to replace ones that have matured, so the gilts held by the Bank of England have not fallen consistently at any point over this period.

At the end of 2019, the rest of the UK financial sector, including commercial banks, building societies, funds, brokers and other financial corporations, held 13% of all gilts. Their share declined in the late 1990s and early 2000s and their holdings were consistently negative from the end of 2003 until just before the financial crisis, reflecting their use of repos. (A repo, or repurchase agreement, is a form of short-term borrowing where an asset – in this case, a gilt – is sold with an agreement to buy it back later at a set price.) Their share has increased again since then, as UK gilts allowed banks to comply with tightened regulations intended to reduce their exposure to risk.

To the extent to which domestic demand for gilts is at least in part determined by the liabilities of pension funds and insurance companies, and the requirements of their regulators, the marginal private purchaser of gilts may disproportionately be foreign investors. As a result, these foreign investors may be particularly important in determining how the market price – and therefore interest rate – on gilts adjusts to developments.

Figure 5.2 showed that about 70% of UK gilts were held domestically while 30% were foreign-owned. Data from the International Monetary Fund (IMF) and the World Bank – presented in Figure 5.4 – show that there is considerable variation across countries in the share of their government debt that is domestically owned and that the UK's share is about average.

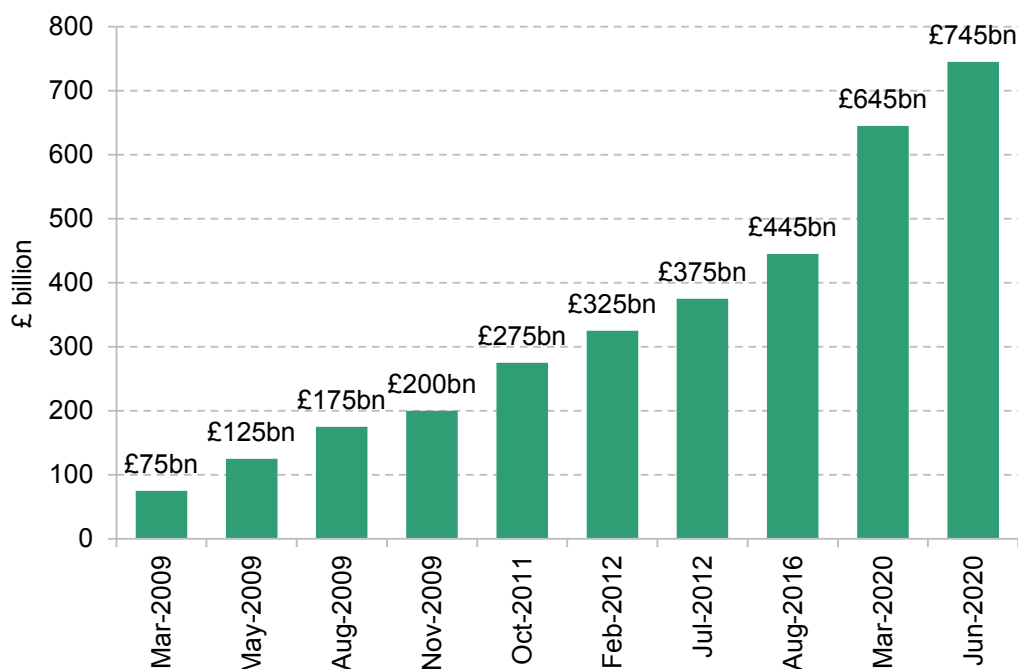
**Figure 5.4. Share of domestic creditors in selected countries, 2019 Q4**

Source: IMF and World Bank, Quarterly Public Sector Debt databank,  
<https://databank.worldbank.org/reports.aspx?source=public-sector#>.

## The growing importance of quantitative easing

As Figure 5.3 shows, the Bank of England's programme of quantitative easing has substantially changed the pattern of holdings. This is a form of 'unconventional' monetary policy that the Monetary Policy Committee of the Bank of England has deployed in an attempt to help ensure financial stability and to expand the economy and push inflation back up towards target when it judges there is little scope for further cuts to interest rates. Quantitative easing was first announced in March 2009, when the Bank committed to buying £75 billion in assets. The vast majority of the assets were and continue to be UK gilts, but the programme also purchases small amounts of private sector, corporate bonds. Since then, the Monetary Policy Committee has expanded the scheme on multiple occasions, including adding a substantial £300 billion across its March 2020 and June 2020 meetings in response to the current crisis (Figure 5.5).

**Figure 5.5. Growth in the planned size of the programme of quantitative easing**



Note: Total asset purchases financed with central bank reserves shown, adding £10 billion of corporate bond purchases at times when the decision was to buy 'up to' that amount.

Source: Monetary policy summary and minutes, <https://www.bankofengland.co.uk/-/media/boe/files/monetary-policy-summary-and-minutes/mpcvoting.xlsx>.

In quantitative easing, the central bank purchases financial assets, which are overwhelmingly government bonds. The increase in demand for bonds can push up their price and lower yields (or prevent what might otherwise be a fall in price and rise in yields). Lower gilt yields put downward pressure on a variety of other interest rates, and will raise the value of a broader class of assets unless offset by rises in the risk premiums on other assets relative to gilts.

To finance these purchases, the Bank of England creates reserves, which are deposits of commercial banks held at the central bank which pay interest at Bank Rate. The Bank of England holds the gilts it purchased in the Asset Purchase Facility.<sup>1</sup> The cost to the Bank from quantitative easing operations is the interest

<sup>1</sup> The Asset Purchase Facility is a subsidiary of the Bank of England. Technically, it is the Asset Purchase Facility that carries out quantitative easing, using a loan from the Bank of England. For simplicity, we (and many commentators) say that 'the Bank' is buying bonds, which does accurately describe the fundamental economic process, even if the legal arrangement is more complex.

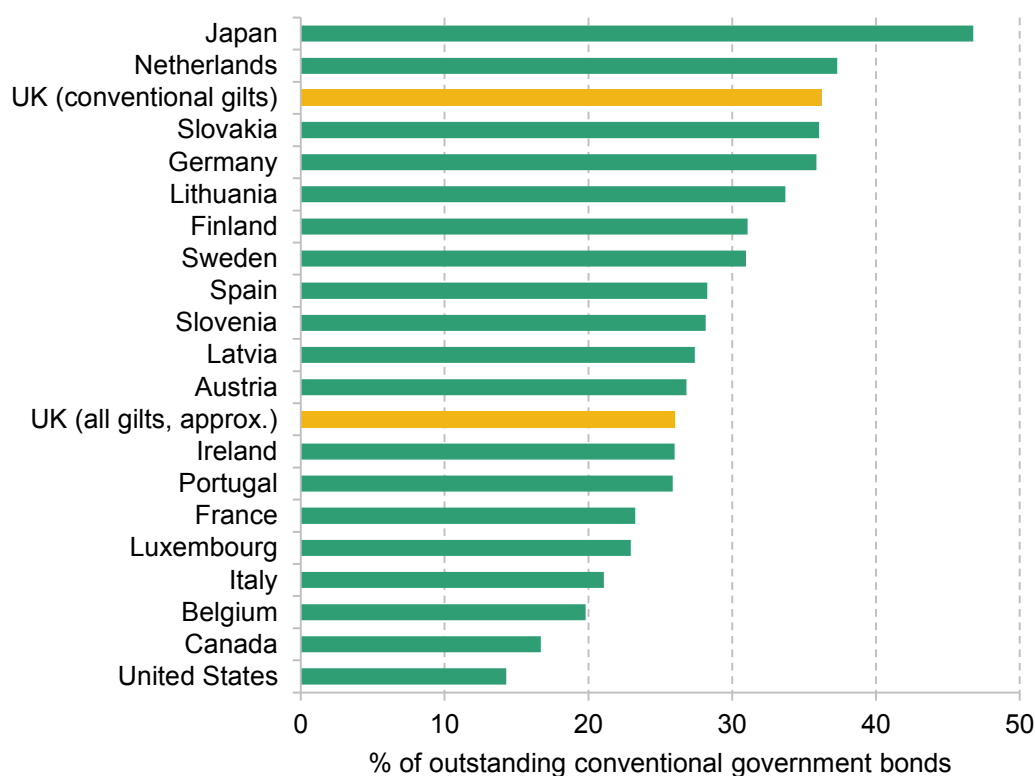
that it pays on the reserves it has created to make the purchases, which is Bank Rate. But the Bank of England also receives interest income from the gilts held in the Asset Purchase Facility, just as would any other investor holding them.

Presently, the interest income that the Asset Purchase Facility receives is greater than the interest rate that it pays on reserves because Bank Rate is lower than the effective interest rate on the gilts it owns. As a result, the Asset Purchase Facility is currently making a profit (quantified in Section 5.3), which is returned to the Treasury. Should Bank Rate rise enough that the interest the Bank of England pays on the reserves that it has created exceeds the interest income it receives from holding the gilts, the Treasury would compensate the Bank – instead of receiving a dividend, money would flow in the other direction.

The Monetary Policy Committee of the Bank of England has stated that the programme of quantitative easing will start to be unwound when demand has risen sufficiently to create inflationary pressures. This would involve selling gilts back to the private sector and so reducing the size of reserves held by commercial banks at the Bank of England. Andrew Bailey, the new Governor of the Bank of England, suggested at the end of August 2020 that some gilts might be sold in order to create headroom for further expansion in future if needed, arguing that ‘it could be preferable, and consistent with setting monetary conditions consistent with the inflation target, to seek to ensure there is sufficient headroom for more potent expansion in central bank balance sheets when needed in the future – to “go big” and “go fast” decisively’ (Bailey, 2020).

The extent to which the Bank of England will ultimately unwind the huge expansion in its holdings of gilts will depend on the demand for reserves from the banking sector. Should commercial banks want to hold far greater reserves than in the past then the Bank will almost certainly wish to allow this to happen so that its balance sheet would not shrink back to where it was before quantitative easing operations began just after the financial crisis. This would mean that the Bank would have a larger balance sheet than it did before quantitative easing operations, making it likely that only some of the gilts bought since 2009 will ultimately be sold. (Technically, the gilts would move from the Asset Purchase Facility to the Bank’s own balance sheet, but in essence this just means the assets stay with the central bank.) This is likely since, just before the financial crisis, reserves at the Bank were small and far below what is now considered prudent by commercial banks.

**Figure 5.6. Central bank holdings of domestic government bonds as a % of outstanding conventional bonds, selected countries, May 2020**



Note: For the United Kingdom, Asset Purchase Facility holdings as a share of outstanding conventional gilts, at market value. For the United States, marketable Treasury securities, excluding Treasury bills, held by the Federal Reserve as a share of outstanding marketable Treasury securities, excluding Treasury bills, at market value. For Canada, government bonds, excluding Treasury bills, held by the Bank of Canada as a share of outstanding Canadian government bonds. For Japan, government bonds held by the Bank of Japan as a share of outstanding Treasury securities, excluding Treasury discount bills and including FILP bonds, at nominal value. For the Eurozone countries, cumulative net purchases of government bonds in the Eurosystem's Public Sector Purchase Programme and the Pandemic Emergency Purchase Programme at book value as of end-May 2020 as a share of outstanding general government bonds at face value as of end-April 2020. For Sweden, the purchases of government bonds (355.4 billion SEK as of 15 May 2020) as a share of outstanding government bonds as of end-April 2020, at face value.

Source: OECD, 'Sovereign borrowing outlook for OECD countries 2020', <https://www.oecd.org/finance/financial-markets/oecdsovereignborrowingoutlook.htm>.

The Bank of England is not the only central bank that has been making large purchases of government bonds. Figure 5.6 presents OECD data from the end of May 2020 that show the share of outstanding conventional government bonds held by central banks across 20 advanced economies. Across these countries, the share varies from 14% in the United States to 47% in Japan. On the measure used by the

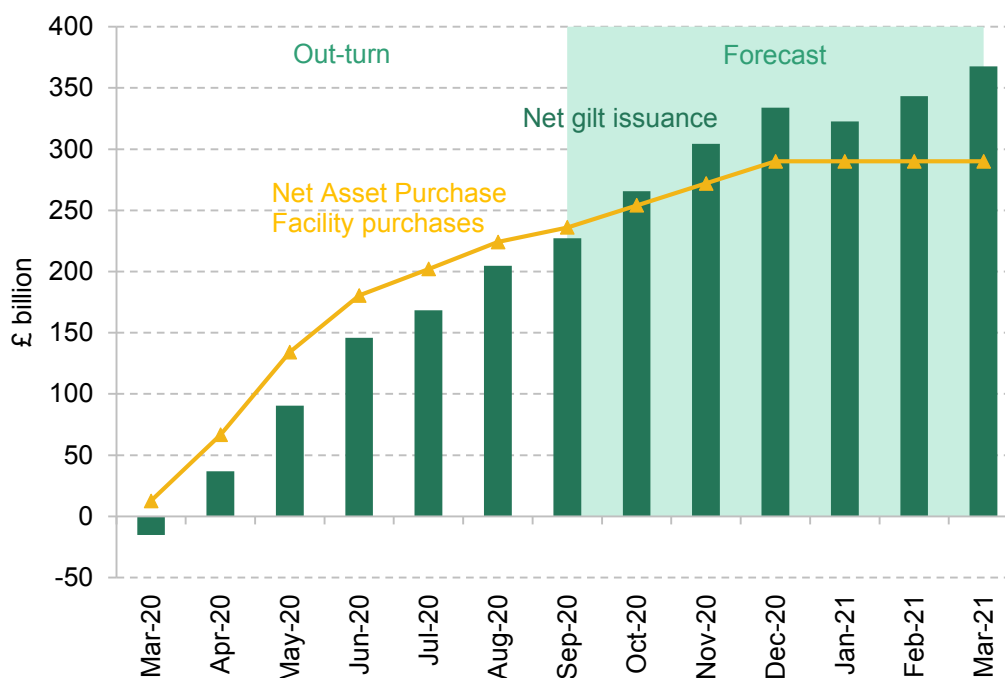
OECD, the Bank of England's holding is relatively high (36%), and indeed only a shade lower than for the Netherlands (37%), the country with the second-highest share out of those for which comparable data are available. However, this figure overstates the role of quantitative easing in the UK somewhat relative to other countries, as it shows the share of conventional (non-index-linked) gilts only. As we will discuss in Section 5.3, the share of inflation-indexed gilts is much higher in the UK than elsewhere (and these are typically held by pension funds and other domestic investors, not by the central bank). Using the proportion of index-linked gilts in 2019–20 would imply that the Bank of England holds approximately 26% of *all* UK gilts. In the other countries, the corresponding adjustment would be significantly smaller.

The size of the programme of quantitative easing has been increased in response to the pandemic – as shown in Figure 5.5, a further £200 billion was announced alongside the March 2020 Budget and an additional £100 billion followed in June 2020. Once the purchases have been made, this will bring the overall size of the programme to £745 billion (36% of national income under our central scenario and, very roughly, a similar share of gilts in issuance). As with previous quantitative easing operations, the purchases of gilts are being made gradually and from the open market (rather than directly from the DMO's gilt auctions).

### Is this monetary financing?

The size of the cumulative net issuance of gilts, by month, since March 2020 (when the first increase in quantitative easing in response to the pandemic was announced) is shown in Figure 5.7 alongside the size of the Asset Purchase Facility's new gilt purchases. Since March, both have increased in lockstep: the growing size of net gilt issuance by the DMO has been largely matched in scale by growth in gilt purchases by the Bank of England. OBR numbers from September suggest that, by the end of September 2020, net issuance of (new) gilts by the DMO since the start of March will have been £227 billion, while over the same period the net purchase of (existing) gilts by the Bank of England will have been £236 billion; holdings of UK gilts other than by the Bank of England will essentially have not changed since the outbreak of the pandemic in the UK. There should have been no direct crowding out of private borrowing arising from the increase in government borrowing over this period.

**Figure 5.7. OBR forecast for cumulative debt issuance and planned Bank of England gilt purchases from March 2020 to March 2021**



Source: Page 9 of Office for Budget Responsibility, 'Commentary on the Public Sector Finances: August 2020', 25 September 2020, <https://obr.uk/docs/September-2020-PSF-Commentary.pdf>.

Looking forwards over the period from the start of October 2020, the figures from the OBR shown in Figure 5.7 suggest that net gilt issuance by the DMO will exceed planned gilt purchases by the Bank of England. In part, this is because the figures imply that gilt purchases from the recent expansion in the programme of quantitative easing will be completed by the end of December 2020. It is of course possible that the Monetary Policy Committee will decide to expand the scheme further.

The fact that Bank of England purchases of gilts have aligned so closely with the government's need to auction gilts to finance its spending has raised the question of whether this is, in fact, monetary financing. This would be a situation where the programme of quantitative easing was being extended in order to finance growing government borrowing (rather than to provide unconventional monetary policy support to demand and to put upward pressure on inflation). As pointed out by Ben Broadbent, Deputy Governor of the Bank of England and Monetary Policy Committee member, the fact that both are occurring at the same time does not mean one is done with the purpose of facilitating the other:

**‘The main problem with this argument is that the monetary stance and the fiscal balance are both cyclical – they tend to rise in upswings and fall in downturns. You’d therefore expect them to be correlated this way. In fact, in the UK data, short-term interest rates have become more tightly correlated with economic growth since inflation targeting was introduced.’**

Broadbent, 2020

The key difference lies in the reason why the programme of quantitative easing is being expanded and how it is expected to be used in future. An independent Monetary Policy Committee choosing to expand the programme of quantitative easing in order to help ensure financial stability, support activity and keep inflation on course to return to the target of 2% is not undertaking monetary financing. Once the economy recovers, and spare capacity in the economy is used up, inflationary pressures would lead to rising interest rates and prompt a gradual unwinding of quantitative easing in order to prevent inflation (and with it inflation expectations) from rising above that same target.

An alternative would be a scenario where monetary policy was not being set to meet the inflation target. As Gertjan Vlieghe, another Monetary Policy Committee member, said in a speech in April:

**‘The difference would be that government would be telling the central bank what to do, implicitly or explicitly, in order to achieve fiscal objectives while subordinating any inflation objectives, a situation also known as fiscal dominance. Why would that ultimately lead to inflation? Because, once a government decides to prioritise its fiscal objectives above its inflation objectives, it is likely to involve removing central bank independence implicitly or explicitly, and crucially keeping short-**

**term interest rates lower than would be appropriate to meet the inflation target.'**

Vlieghe, 2020

Maintaining very loose monetary policy – or even continuing to loosen it – in a situation where there was no longer spare capacity in the economy would not be consistent with the Monetary Policy Committee striving to meet the 2% target for CPI inflation: were this to happen, inflationary expectations would rise and the value of the pound would be expected to fall. Foreign investors in particular would be likely to demand a higher interest rate to entice them to continue lending to the UK government.

Higher-than-expected inflation would also reduce the real value of outstanding conventional gilts. While this would benefit the public finances in the short term, there are better ways to go about reducing debt as a share of national income: if that is the goal, it would be far better to achieve it through well-designed, carefully targeted and clearly articulated tax rises. Surprise inflation might significantly raise the cost of future gilt issuance (since investors would need to be compensated for the risk that inflation again turns out surprisingly high), so while it could reduce the debt-to-GDP ratio now, it could come at a cost of worsening the longer-term fiscal position.

A crucial element is whether the Monetary Policy Committee is, and will remain, independent and focused on meeting the inflation target, and whether this is widely believed to be the case. Market expectations of future inflation have not risen (Vlieghe, 2020). Thus far, it would seem that markets are taking a benevolent view of the recent quantitative easing operations – inclining towards seeing them largely as a means of preventing temporary liquidity issues in the gilt markets in the face of a huge and unexpected rise in issuance, and thus preserving financial stability and supporting economic activity in a way consistent with the inflation target.

The real test will come when economic conditions would seem to warrant some rise in interest rates which, in effect, will raise the cost of government borrowing because so much of it is now effectively being done at Bank Rate (indirectly through the Bank of England). If the markets come to believe that the Monetary Policy Committee will come under pressure from the government not to raise rates, it could generate a rise in inflation expectations, which in turn would drive up

(nominal) gilt yields. The Chancellor should help avoid this by reaffirming the independence of the Bank of England. Moreover, while there may be good arguments in favour of making changes to the Bank of England's mandate – for example, the Federal Reserve in the US has recently revised its inflation target in a way that effectively weakens it – appearances are crucial. Any changes would need to be handled very carefully, and it might be better simply to provide clarity that the current mandate will be maintained.

## 5.3 On what basis does the UK government borrow?

Not all gilts are the same. This section sets out the composition of gilts in issuance and what this means for the risks around debt interest spending and the risks that are being held by the owners of those gilts. The section also compares the composition of UK government bonds with those of other countries, and shows what has been happening to the yields on different gilts.

Gilts vary in terms of whether the amount of interest, and the face value, is fixed in cash terms (a conventional gilt) or whether these amounts are linked to inflation (an index-linked gilt). Gilts also vary in their maturity – that is, how long they continue paying interest before the gilt expires and the principal is repaid. Further details are provided in Box 5.1.

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### Box 5.1. Characteristics of gilts

Gilts are the main instrument the UK government uses for borrowing. In this box, we summarise the main characteristics of gilts, and the different types of gilts offered by the UK government.

**Gilt accounting.** A conventional gilt has a fixed face value and fixed coupons (i.e. interest payments). For example, a 1½% Treasury Gilt 2047 with a face value of £100 will pay £1.50 every year until 2047 before returning £100. But because gilts are sold in a market, supply and demand will determine the actual price of the gilt. That means that the effective interest rate on gilts – that is, the interest paid relative to its market price – can be more or less than the nominal interest rate. For example, if the aforementioned gilt is sold above its face value, at £105, then the effective interest rate is £1.50 divided by £105, or 1.4%. So a rise in gilt prices implies a fall in the effective interest rate on gilts, and vice versa. Yields to

maturity (a better measure of the overall return and often what people mean by ‘the interest rate’) also reflect any predictable capital gain or loss when a gilt trades at a price different from its face value but will subsequently move back towards it.

**Gilt maturity horizons.** Gilts pay interest for a fixed number of years, after which the money loaned (the principal) is repaid. Treasury bills (or T-bills) are very short-term bonds with a maturity of less than a year used to manage the government’s immediate cash flow, which we do not consider here. The DMO issues gilts in three maturity ‘buckets’: short (1–7 years), medium (7–15 years) and long (more than 15 years). Since 2005, the DMO has also issued some ultra-long gilts (50 years or more). The relationship between maturity and the cost of borrowing (the yield curve) is an important determinant of the cost of government borrowing. Gilts of different maturities also attract different types of investors: long-maturity gilts are primarily bought by domestic pension funds and life insurance companies (which need stable, long-term assets to offset their long-term liabilities), whereas shorter gilts attract a more diverse set of investors.

**Conventional versus index-linked gilts.** Gilts also differ in how they define the interest that will be paid. Conventional gilts pay a fixed, nominal amount of interest; the interest on index-linked gilts depends on a measure of inflation. Index-linked gilts expose debt interest spending to inflation risk: if inflation turns out higher than expected, the government would have to pay more in nominal terms on interest on these gilts (conversely, lower-than-expected inflation leads to a smaller debt interest bill).

Index-linked gilts are currently pegged to the Retail Prices Index (RPI), which is well known to be a flawed measure of inflation based on outdated statistical techniques. The Office for National Statistics is planning effectively to replace the RPI as the index for inflation-proof bonds with the Consumer Prices Index including Housing, which is a more accurate measure of prices and in recent years has measured inflation substantially lower than RPI inflation. Depending in part on the results of a consultation that closed in August, the change is planned to be implemented between 2025 and 2030. In 2019, the OBR pointed out that the unsuitable formula had raised RPI inflation by an average of 0.7 percentage points a year over the previous four years. The consequences of RPI turning out 0.7 percentage points lower would (all else equal) lower debt interest spending by £3.1 billion in 2019–20 rising to £4.4 billion in 2023–24.<sup>a</sup>

<sup>a</sup> Source: Office for Budget Responsibility, 2019, box 7.1, p. 201.

The right gilts to issue will depend, at least in part, on which risks the private sector is well placed to manage. For example, defined benefit pension funds will have substantial long-term liabilities that in many cases are linked to the RPI. Therefore, they will see a natural hedge in long-maturity, index-linked gilts which are well matched to their liabilities in terms of both maturity and inflation risk. More generally, the price – or in other words the rate of return – on offer for different types of gilts will be a market signal.

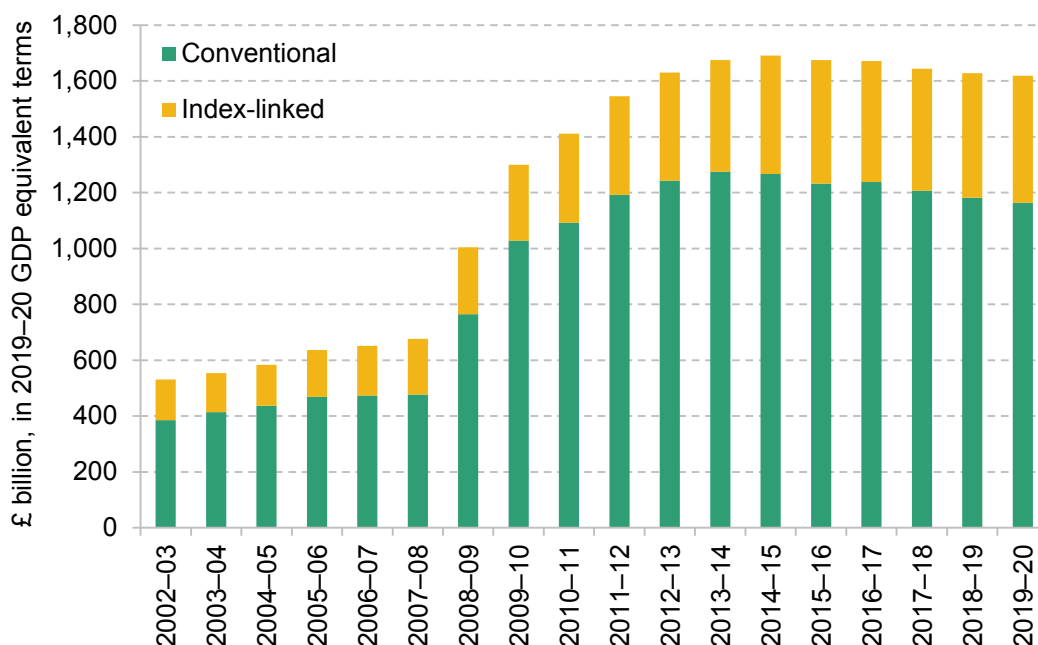
It is also sensible for the DMO to have a clearly communicated process for how the mix of gilts to be sold will be determined. This will improve market expectations of what the future supply of different types of gilts is likely to be. This can help to ensure that gilt prices are not reduced (and interest rates increased) due to an unnecessary premium to cover uncertainty over what the composition of future issuance will be.

### What proportion of gilts are linked to inflation?

Following the Wilson Committee report of 1980, the UK was an early issuer of index-linked bonds, issuing the first UK gilts of this type in March 1981. The stated rationale was to demonstrate commitment to reducing inflation by lessening the incentive to try to induce surprise inflation.

Compared with other G7 countries, the UK has a much larger share of its gilts that are index linked. In 2017, 26% of the UK's gilts were index linked; this was more than twice the 12% share of Italy, which had the second-highest share. More broadly across OECD countries, the average share of government bonds that are index linked has fluctuated between 3% and 8% over the last decade, well below the share seen in the UK (OECD, 2019).

At least in part, this might reflect differences in where demand for each country's government bonds comes from. The UK has a relatively large, and mature, funded defined benefit pension provision where liabilities are inflation linked. This will generate more demand for inflation-linked government bonds, at least relative to countries where a larger share of pensions is either financed on a pay-as-you-go basis or funded but with the resulting pensions not fixed in real (inflation-adjusted) terms.

**Figure 5.8. Conventional and index-linked gilts (£ billion)**

Note: Face value, uprated to 2019–20 terms.

Source: Debt Management Office; uprated to 2019–20 terms using growth in nominal GDP (ONS series BKTL).

The share of gilts, split by whether they are conventional or index linked, for each financial year back to 2002–03 is shown in Figure 5.8. The share that is index linked has risen slightly from 23% in 2010–11 to 28% in 2019–20. Excluding gilts purchased by the Bank of England, the share of index-linked gilts is even greater, as the Bank of England only purchases conventional gilts (in part because it would appear odd for the body charged with keeping inflation on target to purchase gilts that offer insurance against higher-than-expected inflation).

The government has recently made an active decision to reduce the share of gilts issued that are index linked. The Treasury has stated that this was partly in response to the declining membership of defined benefit pension arrangements reducing demand for these gilts, and partly in response to the OBR’s inaugural Fiscal Risks Report which highlighted the exposure of public spending on debt interest to increases in the RPI. In particular, the OBR pointed out that since index-linked gilts have longer average maturity than conventional gilts, this was leading to the outstanding stock of gilts that are indexed rising as conventional gilts reached

maturity more often (Office for Budget Responsibility, 2017). In response to this OBR report, the Treasury said:

**‘The government has therefore been considering the appropriate balance between index-linked and conventional gilts, taking account of the level of structural demand, the diversity of the investor base, and the government’s desired inflation exposure. The government’s current view on the balance between these considerations was reflected in the 2018-19 financing remit, which reduced index-linked gilt issuance by 2 percentage points compared to that planned at the start of the previous financial year (2017-18), from 23.1% to 21.1%.’**

HM Treasury, 2018a, p. 54

Following this, in the Autumn 2018 Budget, the government said that it would ‘look to reduce index-linked gilt issuance in a measured fashion as a share of total issuance over the medium term, in line with this planned reduction’ (HM Treasury, 2018b, annex A). The March 2020 Budget followed this through, reducing the share of index-linked issuance in 2020–21 compared with 2019–20. As a result, the share of gilts being issued that are index linked is set to fall in future years, though it will still remain substantially higher than in other countries. (And, of course, the value of index-linked gilts is still set to rise with higher borrowing over the next few years; see Chapter 4.)

But there could be considerable benefits from moving in the other direction and tilting issuance more towards index-linked gilts. DMO auctions have been achieving very high prices – and therefore very low effective interest rates – on index-linked gilts. For example, on 2 September 2020, the DMO auctioned £459 million of index-linked gilts that run to 2056 at a real yield to maturity (based on RPI indexation) of –2.0%. In addition, the DMO received total bids of 2.26 times the amount being auctioned, suggesting that demand is sufficiently strong to bear at least some more issuance. Doing this would have the advantage of locking in the real cost of more government debt. While there are flaws in the RPI as a measure of inflation, these are fixable and therefore should be tackled directly

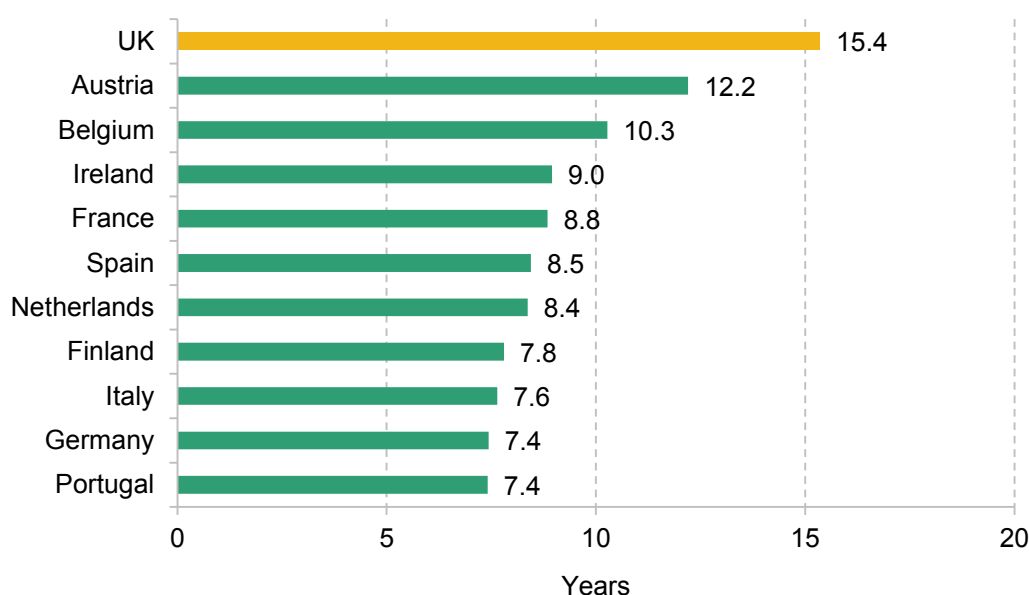
rather than used as a reason not to issue index-linked debt. A further advantage of increasing the share of index-linked debt is that it would be a visible way of demonstrating a commitment not to resort to inflation to try to reduce government debt.

### How long-term are UK gilts?

Relative to other countries, the UK's debt is very long-term. Figure 5.9 shows the average maturity of government borrowing across 11 advanced economies. The UK not only has the highest average maturity, but at over 15 years it is the largest by a substantial margin. For comparison, France, Germany, Italy and Spain all have an average maturity of less than 9 years.

The average maturity of gilts also varies by whether they are conventional gilts or index linked. Of new gilts issued in 2017–18, 60% of conventional gilts (which were 75% of those issued) were either short or medium maturity. In contrast, over 80% of index-linked gilts (which were 25% of those issued) were of a long maturity.

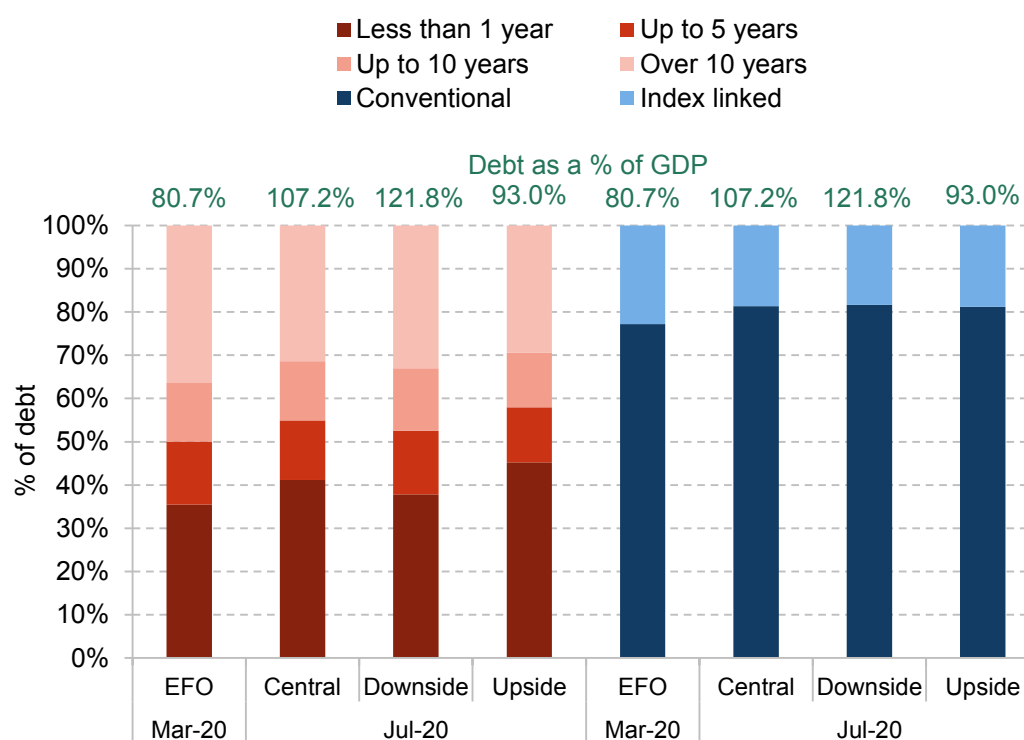
**Figure 5.9. Average maturity of government borrowing**



Source: Citi Research.

As was shown in Table 5.1, a large amount of gilts will be issued over the next few years, although there is substantial uncertainty over how many more will be issued. The OBR, in its July 2020 Fiscal Sustainability Report, produced forecasts for gilt issuance – including its composition – under three scenarios for the evolution of the economy.<sup>2</sup> These are presented in Figure 5.10. They show that the composition of government bonds in 2024–25 is relatively invariant to the scenario: the share of gilts that are index linked is forecast to fall to around 20% in all three of the OBR’s scenarios. The share of gilts by maturity also does not vary much across scenarios, though the more optimistic scenario is associated with a slightly greater share of debt being on a less than 1-year basis.

**Figure 5.10. Forecast composition of debt in 2024–25 under different scenarios**



Source: Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

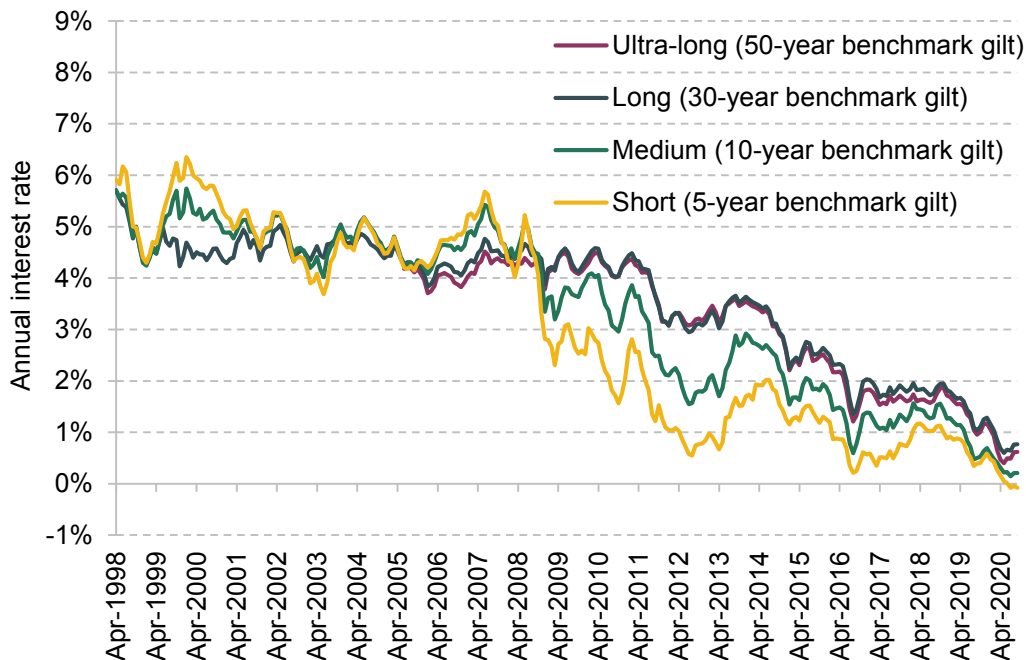
<sup>2</sup> Note that these economic forecast scenarios differ from the Citi scenarios presented in Chapter 2 and underpinning the borrowing forecasts in Chapter 4.

## What interest rate does the government pay?

The interest rate on government borrowing is determined by market forces and has varied considerably over time. In particular, the period since the financial crisis has seen noticeable falls in interest rates. Interest rates at a particular point in time also vary between different types of gilts. Typically – but not always – yields are lower on short-maturity rather than longer-maturity gilts, as investors require a higher rate of interest to compensate them for tying up their funds for a longer period. But this is not always the case: when interest rates are expected to fall in the future, and then remain lower for at least some time, the yield on (say) a 5-year gilt could be above that on a 10-year gilt. This might occur when interest rates are thought to be above their natural level, or when markets are expecting a recession to occur in the near future and hold down inflation.

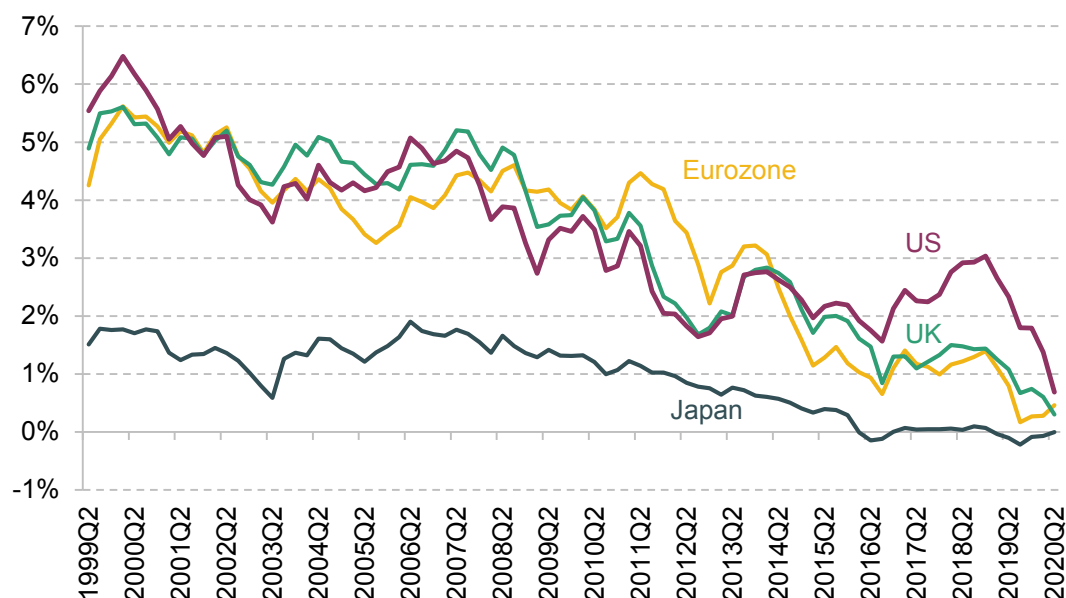
The time variation in yields on UK gilts is shown for the period April 1998 to September 2020 in Figure 5.11. After the financial crisis, gilt yields fell sharply,

**Figure 5.11. Gilt yields, April 1998 to September 2020**



Note: The historical monthly average gilt yields are simple averages of the close-of-business redemption yields for each month of the prevailing benchmark gilts.

Source: Debt Management Office, 'Historical average daily conventional gilt yields', <https://www.dmo.gov.uk/data/>.

**Figure 5.12. Yields on 10-year government bonds for selected economic areas**

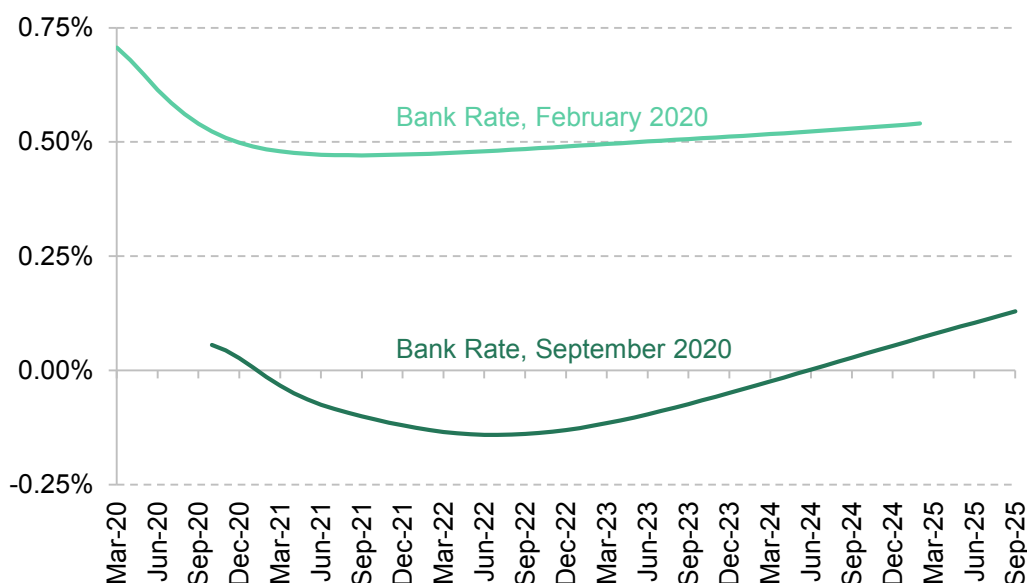
Note: Rates on 10-year government bonds. 'Eurozone' refers to the evolving composition of the monetary union, i.e. including Greece from 2001 and including Slovenia from 2007. National rates are weighted by the nominal amounts outstanding in the maturity band.

Source: OECD monthly monetary and financial statistics (Main Economic Indicators).

with particularly large falls in the rates on shorter-maturity gilts. This meant that, going into the COVID-19 crisis, gilt rates were already very low by recent historical standards; since the outbreak, they have fallen further still, and some short-maturity gilts are now offering a (small) negative return. Even 50-year gilts are consistently offering under 0.7% a year since April 2020. These are nominal yields. In the long run, we might expect inflation, as measured by the CPI, to return to the target level of 2% which, when combined with a nominal return of 0.6% a year, would imply a substantially negative real return. Moreover, it is far from obvious that, over the longer term, the chances of inflation persisting at a lower level than 2% are materially greater than the chances of it running at a higher rate.

Falling interest rates on government debt since 2008, to levels that are very low by historical standards, are not unique to the UK. Figure 5.12 shows how the yields on 10-year government bonds in the UK compare with those in the Eurozone, Japan and the United States over the period from 1999 to 2020. For all these currency zones, yields on government debt have recently been at their lowest level since at

**Figure 5.13. Market expectations of Bank Rate, February and September 2020 compared**



Source: Bank of England yield curves (<https://www.bankofengland.co.uk/statistics/yield-curves>), averages for 10 days up to 14 February and 18 September, respectively.

least 1999, with the rates in the UK, the Eurozone and the US now much closer to the very low rates that have become typical for Japan.

The prices of different financial instruments also allow us to see what market expectations are for interest rates in the future, and how these differ from earlier expectations. Figure 5.13 shows market expectations for Bank Rate, the rate which is the effective cost to the government on those bonds held by the Bank of England. In February 2020, largely before the impact of the pandemic on the UK economy had been felt, market expectations were already that the Bank of England would cut Bank Rate from 0.75% to around 0.5%. This was, perhaps, related to an expectation of how COVID-19 might spread at that point or other concerns about the world economy.

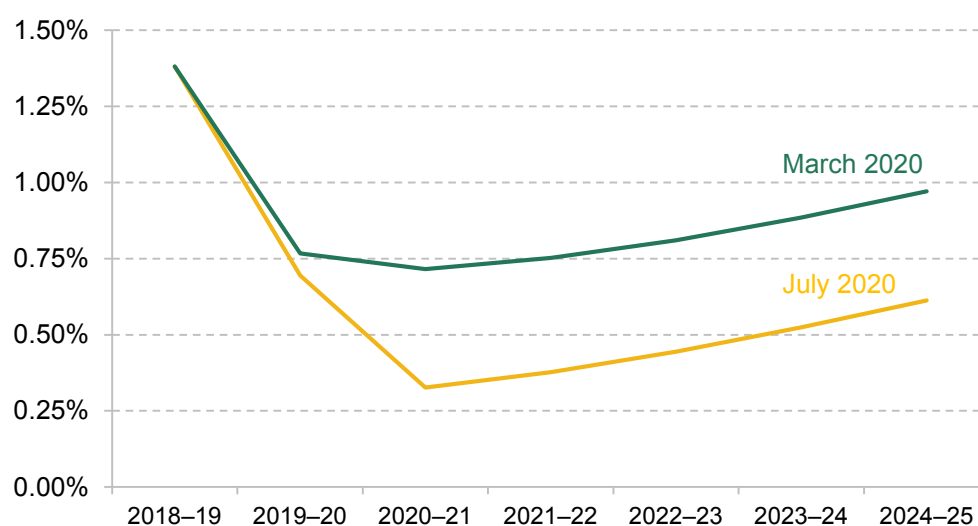
Later, in March 2020, the Bank of England reduced Bank Rate to 0.1% (alongside the expansion of its programme of bond purchases described in Section 5.2). By September 2020, market expectations for Bank Rate had fallen sharply from where they had been in February. This is because markets now expect much weaker demand in the economy, and therefore inflationary pressures to remain subdued, and as a result expect the Bank of England to keep Bank Rate very low for longer.

Bank Rate is expected to fall to below 0% in 2021 and not to return to positive values until late in 2024. Prior to March 2020, Bank Rate had never previously fallen below 0.25%, and prior to the financial crisis it had not fallen below 3.5% since the 1950s or to below 2% since the foundation of the Bank of England in 1694.

Figure 5.14 shows that, in March 2020, financial market prices implied an expectation that the average interest rate on UK gilts would rise to just under 1% in 2024–25. This would still have been a very low level of interest rates by UK historical standards (and indeed the standards of most economies). But as of July 2020, while interest rates on gilts are expected to rise over time, by 2024–25 they are now expected to average just 0.6%. This is more than 0.3 percentage points lower than was expected in March.

Elevated gilt issuance over the next few years makes locking in low interest rates for long periods particularly attractive. While such a strategy is not risk free – gilt yields could fall further – the chances of further significant falls are plausibly lower than the chances of equivalent rises. Given this likely asymmetry, there is a case for

**Figure 5.14. Market expectations of future gilt rates, March and July 2020 compared**



Note: Weighted average interest rate on conventional gilts.

Source: Chart 5.3 on page 139 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

issuance to be more tilted to the long term, a case strengthened by the fact that the expansion of quantitative easing is substantially reducing the effective maturity of government borrowing (see below).

### The impact of quantitative easing on the effective structure of debt

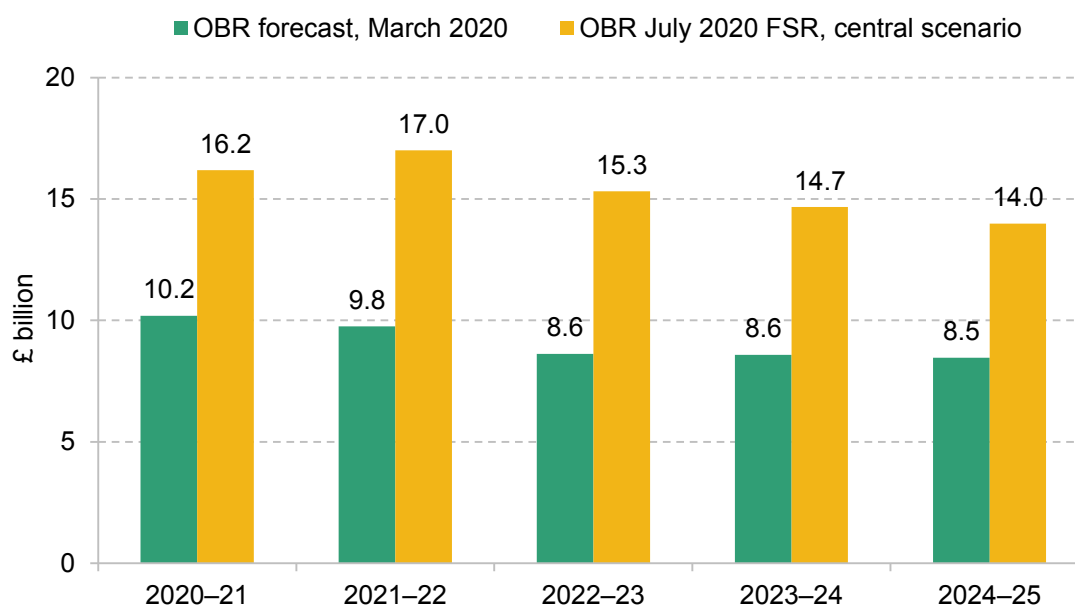
Section 5.2 explained that interest on gilts held by the Asset Purchase Facility is retained within the public sector. To purchase these gilts, the Bank of England has created reserves on which it pays Bank Rate. This has two important effects on the public finances. First, it affects the amount of net debt interest spending (taking into account remission of profits from the Bank of England to the government). Second, it reduces the effective maturity of gilts. Both effects are substantial and have been growing.

Bank Rate is currently lower than the interest that is received on the gilts that are held in the Asset Purchase Facility. The ‘profits’ made by the Asset Purchase Facility can then be used to offset some of the debt interest bill that the government owes on debt held by other purchasers. So today the overall impact is to lower debt interest spending. Expanding quantitative easing during periods when Bank Rate is below gilt rates – as has been the case recently – also reduces net debt interest spending.

Figure 5.15 quantifies the extent to which quantitative easing has been helping to hold down debt interest spending, and how much larger these effects have grown since March. At the time of the March 2020 Budget, the reduction in debt interest spending due to quantitative easing was estimated to be £10.2 billion in 2020–21, falling to £8.5 billion in 2024–25. By the time of the July 2020 Fiscal Sustainability Report (FSR), this temporary boost had increased substantially, to £16.2 billion in the current year and £14.0 billion in 2024–25. Virtually all of this increase is due to the fall in Bank Rate since March, with a relatively modest additional impact from the expansion in quantitative easing.

The second impact of quantitative easing on debt interest is that it substantially reduces the effective maturity of gilts. Instead of interest rates being locked in for 5, 10, 30 or even 50 years, borrowing is effectively being financed at contemporaneous short-term interest rates. Figure 5.10 showed that the remaining maturity on outstanding conventional gilts is, roughly, 41% less than 1 year, 27%

**Figure 5.15. Temporary boost to the headline public finances arising from gilts held in the Asset Purchase Facility**



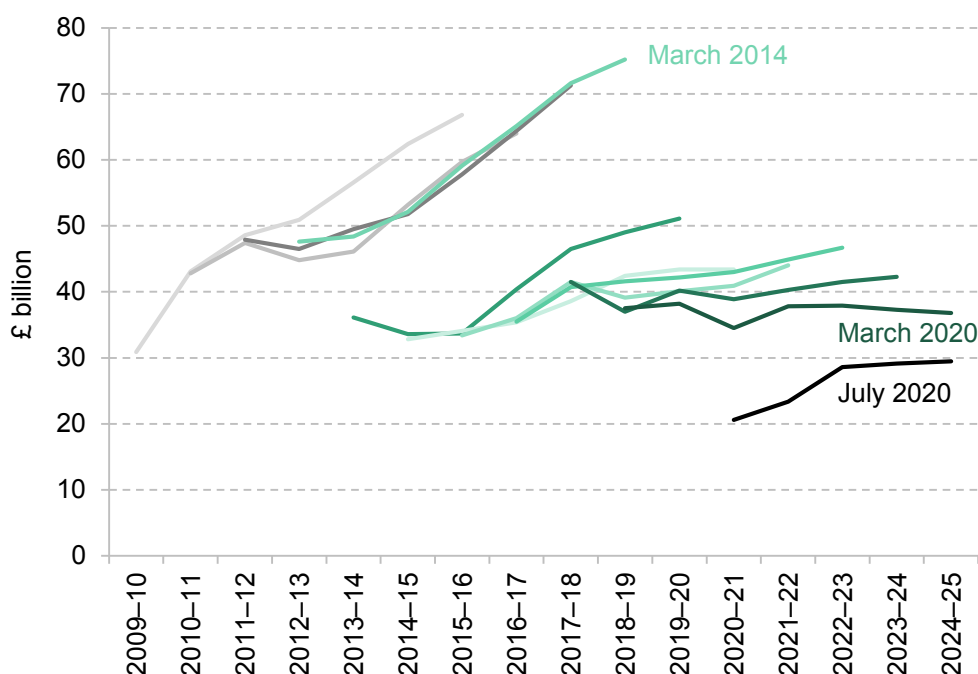
Source: Table 3.23 on page 88 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

up to 10 years and 31% over 10 years. But under quantitative easing, the Asset Purchase Facility buys gilts across the maturity spectrum and replaces it with borrowing on a zero-maturity basis. With the programme of quantitative easing proving to be much longer lived – and much larger – than was envisaged when it was first launched in 2009, it raises the question as to whether the DMO ought to respond by issuing a larger share of gilts of a long maturity. As we discuss in the next section, it also leaves debt interest spending much more sensitive to changes in interest rates.

## 5.4 What are the costs of elevated debt?

One clear cost of having higher government debt is that, at a given average effective interest rate, a higher stock of debt means higher spending on debt interest payments. The previous chapter showed that, despite increases in government debt relative to the size of the economy since 2007–08 (Figure 4.11), spending on debt interest had fallen to a share of total receipts not seen since before 1700 (Figure 4.14). The decline in spending on debt interest since 2007–08 is due to the fall in effective interest rates that was shown in Figure 5.11.

**Figure 5.16. Successive forecasts for central government debt interest (net of income via the Asset Purchase Facility)**



Note: Figures shown net off the interest paid on gilts held in the Asset Purchase Facility above and beyond Bank Rate. These payments remain in the public sector.

Source: Office for Budget Responsibility, 'Historical Official Forecasts Database – March 2020', <https://obr.uk/download/historical-official-forecasts-database/>; Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

The fall in interest spending seen in more recent years was not forecast; instead, low interest rates meant that debt interest spending repeatedly turned out much lower than had been expected. This is shown in Figure 5.16. Particularly noteworthy is the fact that in the March 2014 Budget, debt interest spending in 2018–19 was forecast to be £75.2 billion, whereas it actually turned out at around half that level at £37.5 billion. Over the same period, public sector net debt turned out £225 billion higher than had been forecast (at £1,773.5 billion compared with the March 2014 forecast of £1,548 billion). So debt interest spending came in much lower than had been forecast despite public sector net debt coming in considerably higher than had been forecast.

A similar revision has occurred between the March 2020 Budget and the central forecast published by the OBR in its July 2020 Fiscal Sustainability Report. The drop in Bank Rate and gilt rates, along with the expansion of quantitative easing in

recent months, has seen forecast debt interest spending in 2020–21 drop from £34.5 billion to just £20.6 billion. Even in 2024–25, by when the OBR is forecasting public sector debt will be £600 billion higher than forecast in the March 2020 Budget (at £2,632 billion instead of £2,031 billion), the OBR now forecasts that debt interest spending will be £29.5 billion, which is £6.3 billion (20%) lower than the £36.8 billion forecast in March. Over the five years from 2020–21 to 2024–25 (inclusive), debt interest spending is now forecast to average 1.1% of national income, compared with the 1.5% of national income that was forecast by the OBR at the time of the March Budget. This is remarkably low, and is occurring when government debt is around 100% of national income for the first time in 60 years.

But what comes down could also go up. Just as record falls in interest rates have greatly reduced debt interest spending, increases in interest rates could also rapidly increase debt interest spending. At the time of the March Budget, the OBR estimated that an immediate and permanent 1 percentage point (ppt) increase in short rates would in five years' time add just over 0.2% of national income to debt interest spending. A 1ppt rise in gilt rates would add a similar sum. So a 1ppt rise

**Table 5.2. Sensitivity of debt interest spending to changes in interest rates**

	<b>March 2020</b>	<b>July 2020</b>	<b>% change</b>
1ppt increase in gilt rates (% of GDP at the end of the forecast)	0.23%	0.37%	+63%
1ppt increase in short rates (% of GDP at the end of the forecast)	0.22%	0.41%	+89%
1ppt increase in both gilt and short rates (% of GDP at the end of the forecast)	0.44%	0.78%	+76%
1ppt increase in both gilt and short rates (£ billion at the end of the forecast)	£11bn	£19bn	+76%

Note: £ billion increases based on the central medium-term scenario in Chapter 2.

Source: See chart 5.7 on page 145 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

would push up debt interest spending by over 0.4% of national income. This is shown in the first column of Table 5.2.

The sensitivity of spending to changes in interest rates has been exacerbated by the COVID-19 crisis. There are several reasons for this. First, gross financing is higher, meaning that there is a larger stock of debt to pay interest on. Second, with the further expansion of quantitative easing, a larger share of the debt stock is now effectively financed on a short-term basis. In July, the OBR updated its estimate of the interest rate ready reckoner, calculating that a 1 percentage point increase in both short rates and gilt rates would now add almost 0.8% of national income to spending. This is 76% higher than what was thought just four months earlier: on the Citi central forecast from Chapter 2, 0.8% of national income in 2024–25 would be £19 billion, some £8 billion higher than the £11 billion that 0.4% of national income in the same year would imply.

Whilst reductions in debt interest spending have caused substantial savings in the years since 2014, it is important to remember that this period has not been characterised by an improving outlook for the public finances overall. This is because the fall in interest rates was associated with a reduced outlook for nominal growth. A smaller economy in nominal terms depresses tax receipts, and this effect tends to outweigh the savings from lower debt interest spending. To illustrate, debt interest spending was £38 billion lower in 2018–19 than forecast in March 2014. But government revenues were £54 billion lower than they would have been, had they grown as quickly between 2012–13 and 2018–19 as was forecast in March 2014.

Similarly, if a future increase in interest rates were accompanied by an improving outlook for nominal growth and a corresponding increase in revenue, the combined effect would be quite likely to help, rather than hurt, the public finances.

There are, however, risks to that calculation. Tax revenues may be slower to recover than growth, if some previously tax-rich sectors falter, or if loss reliefs lead to tax revenues remaining depressed for longer. If interest rate increases are prompted by rising inflation but weak real growth, poorly performing labour and product markets could fail to generate additional revenue.

More fundamentally, changes – or even just a perceived appetite for changes – to the institutional structure of UK fiscal and monetary policy could put upward

pressure on the risk premium for gilts, even if the underlying natural rate of interest, and expected growth, remain very low. As the OBR put it in its July 2020 Fiscal Sustainability Report, ‘investors could demand a higher risk premium on gilts in the future if the credibility of the institutional framework were to come into question’. This could be the case if markets become concerned that the UK might not retain an independent central bank committed to its inflation target, and setting monetary policy accordingly. If the central bank instead used the tools of monetary policy with the purpose of facilitating government spending, or even if there was merely such a perception, interest rates would increase to compensate for expected higher inflation.

It bears repeating that the signals from the markets suggest that investors continue, so far, to have confidence in the UK’s institutional framework. At the same time, it is notable that the past few years have seen the UK consider or undertake major institutional changes in other spheres, including Scottish independence, relationships with the European Union and, most recently, willingness to adhere to international law. Whatever the merits of any of these particular policies (or others), there is a risk that investors start to perceive the UK government as being willing to countenance major changes to institutions more generally – which might, in time, affect their views on the risks to central bank independence.

Even if there were no explicit change to its mandate, observers and investors might become concerned that, as the government comes to rely increasingly on quantitative easing to ensure that gilt auctions do not fail, the Bank of England may be more hesitant to increase interest rates, and to create a larger fiscal headache for the Chancellor.

Ultimately, an extreme scenario is one where gilt auctions end up undersubscribed and the DMO struggles to place enough gilts to fund the government’s spending. This situation could arise if investors, especially foreign investors – who, when quantitative easing is no longer being expanded, may be the marginal buyers of gilts – lose confidence in the architecture of UK fiscal and monetary policy.

## 5.5 Conclusion: how should the debt be managed?

Careful management of the debt is important. Plenty of historical and contemporary sovereign debt crises illustrate the enormous pain caused by getting it very wrong. But even getting it only slightly wrong, servicing the debt can easily become more expensive than it needs to be. To respond adequately to the COVID-19 crisis and support the subsequent recovery, the UK government needs to borrow large sums. Combined with the large share of gilts held by the Bank of England via quantitative easing, this leaves spending on debt interest highly exposed to changes in short-term interest rates. If Bank Rate, gilt rates and short rates increased by even  $\frac{1}{3}$  of a percentage point from their currently very low levels, this would add £5 billion a year to debt interest spending in five years' time.

If this were accompanied by stronger economic growth that fed through into higher revenues – the reverse of what we have seen in recent years – then this would most likely leave the public finances in an overall stronger position. But a scenario of an increase in interest rates which is not accompanied by strong growth in revenues would be a much bigger issue for the public finances now compared with when the debt burden was lower and when a smaller share of the debt was effectively financed on a very short-term basis.

One way to address this risk is by selling more long gilts. Long-term rates are extraordinarily – some would say unsustainably – low. In September 2020, 30-year conventional bonds were trading at an annual nominal interest rate of 0.77%, and 50-year conventional bonds were trading at 0.62%. Real gilt yields on inflation-indexed (RPI-linked) debt were *minus* 2% or below. In the long run, we might expect inflation (as measured by the CPI) to return to the target level of 2%; it is far from obvious that, over the longer term, the chances of inflation continuing to undershoot its target are materially greater than the chances of it running at a higher rate.

Because of the much-expanded issuance of debt, the Debt Management Office has already been selling more long gilts in absolute terms. But there is a case for pushing this strategy further and attempting to increase the share of long gilts. There will be a limit to how far the DMO can take this strategy; for example, pension funds and insurance companies, which generate the bulk of demand for

long, index-linked gilts, will not have unlimited appetite for buying additional gilts of this type. However, the low effective interest rate at which the DMO has been successfully placing these gilts would appear to signal that we are not yet close to this limit.

In particular, there could be considerable benefits from DMO issuance tilting considerably more towards long, index-linked gilts. This would have the advantage of not cutting across the Bank of England's quantitative easing programme (which only purchases conventional gilts). This strategy runs counter to the recommendation of the OBR's 2017 Fiscal Risks Report – as it would mean debt interest spending was more exposed to changes in the RPI. But issues raised by the RPI being a poor measure of inflation should be tackled directly, rather than through simply avoiding the problem and leaving the future real cost of servicing the national debt more exposed to genuine inflation risk.

Locking in the negative real interest rates for long periods of time on much of the elevated issuance over the next few years could have considerable upside benefits. It does really feel like the time to reduce the exposure of the public finances to increases in short-term interest rates and follow the signal that the market is providing by offering such high prices (significantly negative real interest rates) on long, index-linked gilts.

This strategy is not infallible – indeed, similar arguments have been made in the past when interest rates had fallen to then-record lows, only subsequently to fall further. In fact, evidence suggests that over the past century, it would have been cheaper for the government to hold all its debt in short gilts (Ellison and Scott, 2020). The same is true over the decade following the financial crisis. It is possible that interest rates will continue to surprise us on the downside. But the risks now look asymmetric. Even if they are not, locking in the real cost of borrowing is an insurance measure.

This does not just mean that we might want to lock in these rates for a greater proportion of government debt by shifting the composition of the gilts that are being issued under current plans. It also means that we may want to consider expanding the total issuance by selling more of these gilts in order to finance high-quality long-term investment projects. Of course, this strategy would require the government (or a body set up for this purpose, if it does not have the capacity) to be

able to identify, design and deliver projects that were able to deliver sufficient returns, appropriately adjusted for the risks involved.

This is by no means an easy task, and is made more difficult by the current high levels of uncertainty. History does not make one optimistic. But the threshold of success is lowered by extremely low rates that come at a time when there is need in the areas of infrastructure spending and the facilitation of a transition to a low-carbon economy.

Finally, institutions and the credibility of our institutional framework matter. The mere fact that, since the COVID-19 crisis reached the UK in March, the Bank of England has expanded its programme of quantitative easing by nearly the same amount as the government's borrowing needs have grown does not mean it is engaging in monetary financing. Indeed, market actors do not appear to believe that this is monetary financing. It is important that this remains the case.

The Chancellor is right to borrow large sums to support the country and the economy through this crisis, and having elevated debt for decades in response to a sizeable temporary adverse shock is entirely appropriate. But the Chancellor does need to provide reassurance on several points. First, he needs to signal that he takes the long-run health of the public finances seriously (which we discuss further in Chapter 4). Second, he needs to indicate that he fully respects the independence of the Monetary Policy Committee. Third, he needs to show a commitment that the inflation target will not be watered down in an attempt to help manage the public finances. While there may be a case for a change to central bank mandates in the crisis, appearances are crucial here. Even if some reform had merit in principle, a perception that monetary policy objectives are subordinated to fiscal ones could be damaging and difficult to repair once it has taken hold. Issuing a much larger share of gilts on a long-term indexed basis would make this less likely.

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# 6. Spending Review 2020: COVID-19, Brexit and beyond

Ben Zaranko (IFS)

## Key findings

- 1 This year's Spending Review will take place in extremely challenging circumstances. The immense economic uncertainty associated with the COVID-19 pandemic, and the looming end of the Brexit transition period, make this an extraordinarily difficult time to be formulating public spending plans.
- 2 **The Spending Review comes on the back of a decade of austerity.** By 2019–20, total government spending was just 2.6% higher in real terms than a decade previously, and 4.4% lower in real per-person terms. Day-to-day spending on public services was down 7% in real terms (13% per person). **Outside of Health, real-terms public service spending was cut by 20% (25% per person) over the decade to 2019–20.** This has been the longest sustained squeeze on public spending on record. Yet **despite these cuts, on the eve of the pandemic, government spending as a share of the economy (i.e. the size of the state) was the same as in the mid 2000s.**
- 3 Following the September 2019 Spending Round, which provided across-the-board real-terms budget increases for 2020–21, **the plans published in March 2020 would have seen public service spending rising by 10.7% between 2019–20 and**

**2023–24. This would have been enough to reverse two-thirds of the last decade’s cuts to per-person public service spending.**

- 4 But COVID-19 has rendered these plans obsolete. Departments have been allocated more than £70 billion this year as part of the response to the virus. The Health budget alone has been topped up by £35 billion, or 25%. **A crucial question for the Spending Review is the extent to which this COVID-19 spending needs to continue into future years.**
- 5 If some of these spending programmes – such as expanded procurement of personal protective equipment (PPE) or the running costs of NHS Test and Trace – need to persist, **they could swallow up a huge chunk of the increase in funding pencilled in between now and 2023–24.** Some areas of government would be left facing another bout of austerity unless more money in total is found.
- 6 For instance, if 25% of the spending announced in response to COVID-19 needs to be permanent, that would eat up almost half of the planned £40 billion increase in departments’ non-COVID budgets between 2020–21 and 2023–24 (in today’s prices). Given the government’s commitments on the NHS, schools, the police and ‘levelling up’, **that would almost certainly require another bout of austerity for some public services.** To meet those costs while keeping non-COVID spending growing at the rate planned in March would require the Chancellor to find an additional £20 billion by 2023–24, relative to his pre-pandemic plans.
- 7 **Public spending was at 39.8% of national income in 2019–20, much the same as it was in 2007–08,** despite the cuts in public service spending documented above. It is now likely that the economy will be smaller than expected into the medium run, and there are additional pressures on public spending. As a result, even if no COVID-19 spending continues into future years, **it is probable that total spending will settle**

at a significantly higher fraction of national income than it was pre-pandemic, and higher than it was after 10 years of Labour government in 2007–08.

- 8 **Given the huge amount of economic uncertainty, the Chancellor would be ill advised to embark on a multi-year Spending Review.** Instead, it would be sensible to limit this year's Spending Review to a single year (2021–22), and delay decisions on spending in future years until a point when some of the uncertainty over COVID-19, Brexit and the future of the economy has dissipated.

## 6.1 Introduction

The Chancellor, Rishi Sunak, has announced his intention to hold a Comprehensive Spending Review this year. Departmental budgets do not exist beyond March 2021, and so the government does need a fiscal event of some kind to set budgets for at least the 2021–22 financial year. Yet, despite the ongoing economic turmoil, Mr Sunak intends to hold a comprehensive, multi-year Spending Review, to set out the government's spending plans for the remainder of the parliament (HM Treasury, 2020b).

The Spending Review process is a delicate balancing act at the best of times. It forces the Chancellor to make tough choices between competing departments and a myriad of spending programmes, and to be explicit about the government's priorities – priorities that must be backed up with funding. This inevitably entails difficult trade-offs and can create losers as well as winners. While the scope of a Spending Review is typically limited to central government spending on the provision and administration of public services, the Chancellor must also keep an eye on the wider economy and public finances. New commitments must be funded somehow, whether through cuts to spending on other programmes, such as social security, or through higher levels of tax, or by additional borrowing. All in all, it is a daunting task.

But these are not the best of times. This year's Spending Review will take place amidst unprecedented economic turmoil and immense uncertainty. Four major challenges confront the Chancellor.

First, it comes amidst a global pandemic and the most severe economic downturn in centuries. The degree of uncertainty over the future path of the economy is unprecedented, making it extremely difficult – and arguably unwise – to set supposedly fixed, multi-year, multi-billion-pound spending plans at this moment in time. In any case, the Treasury has already approved more than £70 billion of additional funding for departments *this year* in response to COVID-19, blowing previous spending plans (that were set just last September) out of the water. Some of this additional spending – such as substantially increased procurement of personal protective equipment or the running costs of NHS Test and Trace – may need to continue into future years. The Treasury is also likely to find that it is far easier to dish out new funding than to withdraw it again. A key question for the Chancellor will be the extent to which this additional funding needs to be 'baked in' to future plans – at least for the next few years – and the extent to which COVID-19 is deemed to necessitate higher spending on a permanent or semi-permanent basis.

Second, this year's spending decisions come on the back of a decade of austerity. Per-person spending on public services outside of Health was 25% lower in 2019–20 than a decade previously. Many public services are under considerable pressure and are – unsurprisingly – showing signs of strain. Mr Sunak will not be short of requests for additional funding.

Third, the transition arrangement with the European Union comes to an end in just a few months, but the precise nature of the UK's future relationship with the EU remains unknown. This creates further economic uncertainty. In addition, there is likely to be a need for extra funding for certain departments post-Brexit to reflect new responsibilities (relating, for example, to border issues such as immigration and customs, and areas where UK departments will take on greater responsibility for activities previously done by the EU, most obviously in agriculture and regional support). The government has made commitments to replace a number of EU-funded programmes in the UK, including the creation of a UK Shared Prosperity Fund to replace European structural and investment funds. The Spending Review will need to flesh out (at least some of) the details of these commitments.

Finally, the government is committed to an ambitious ‘levelling-up’ agenda. UK regional inequalities are deep rooted and multifaceted, and as such will not be ‘solved’ in a single parliament. Nonetheless, one prominent feature of the debate has been a focus on where government spending (particularly investment spending) goes. The Spending Review will be an opportunity to provide details on how the government intends to ‘level up’ and to commit the necessary funding to those programmes. These plans will undoubtedly be subject to considerable scrutiny, not least because of the emphasis placed on these issues during the 2019 general election and the Prime Minister’s recent promises to ‘build back better’ and ‘build back bolder’.

This all adds up to an extremely challenging set of circumstances in which to be making public spending decisions. In the March 2020 Budget, Mr Sunak set out the overall spending ‘envelope’ to be allocated at the Spending Review. This funding settlement was generous by the standards of the last decade but no bonanza, and implied tight settlements for areas outside of the NHS, schools and the police.

Since then, following the introduction of several large spanners to the works, Mr Sunak has argued that there is a need for ‘tough choices’ after COVID, which could mean public spending on a lower path than was planned in March. In the coming weeks, he will need to decide both the size of the overall spending pot (the ‘envelope’) and its allocation between departments.

As it stands, the Chancellor remains committed to holding a multi-year review, setting three years of resource (day-to-day) budgets – covering 2021–22, 2022–23 and 2023–24 – and four years of capital (investment) budgets (also covering 2024–25, and therefore taking us right to the end of this parliament, if it were to run for a full five years).

There is typically merit in multi-year reviews, which give departments more certainty and allow them to plan medium-term commitments better. However, as we will argue at the end of this chapter, the degree of economic *uncertainty* means that spending plans set two, three or four years into the future would lack credibility. So, just as the extreme uncertainty over the shape of Brexit motivated a single-year review in September 2019 (covering 2020–21 only), there is once again a strong case for the Chancellor to limit the Spending Review to a single year and to set plans for 2021–22 only.

In this chapter, we outline the public spending framework and explain which components of spending are subject to the Spending Review process, and why. We then discuss in more detail the four major challenges outlined above, before turning to a discussion of the options facing Mr Sunak. We set out a number of scenarios to illustrate the two major choices to be made – the initial baseline of public spending and its real-terms growth rate over the next three years – and consider the implications of each. We then return to the case for holding a one-year Spending Review before concluding.

## 6.2 Spending Reviews and the planning of public spending

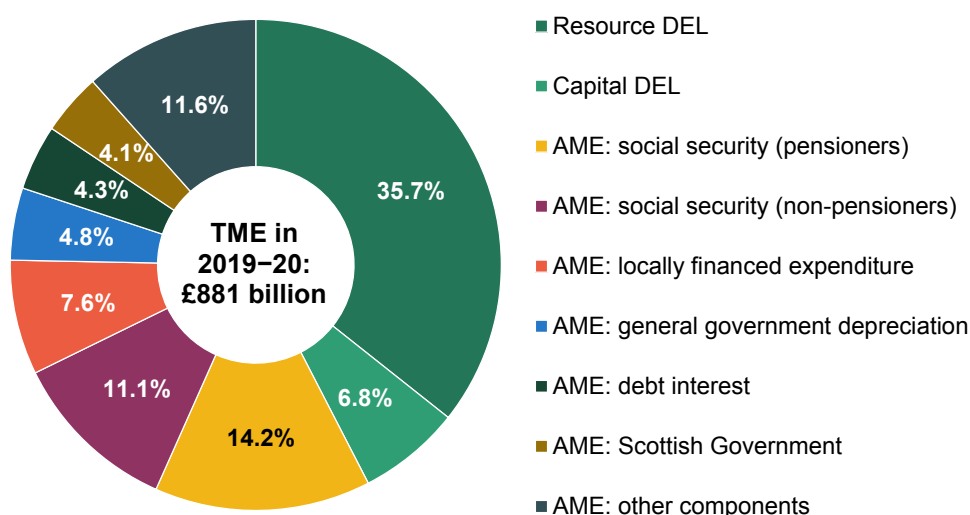
### The framework

The first Spending Review was held in 1998. The concept was introduced as part of a new regime for the planning and control of government expenditure. Under this framework, spending is split into two totals:

- **Departmental expenditure limits (DEL)** can be broadly thought of as spending by central government on public services, and encompasses spending that can be controlled (rather than being driven by, for example, the economic cycle). This spending is allocated between departments, often on a multi-year basis, at Spending Reviews.
- **Annually managed expenditure (AME)** includes the categories of spending that are more difficult to plan, or are outside of central government's immediate control. This spending – which the government argues cannot reasonably be subject to firm multi-year limits – includes things such as debt interest payments and social security, as well as spending by local or devolved governments financed through the taxes that they control.

Together, these two types of spending comprise total managed expenditure (TME), which in 2019–20 amounted to £881 billion in cash terms. Figure 6.1 breaks this down into its various components.

**Figure 6.1. Components of total managed expenditure (TME) in 2019–20**



Note: £ billion figure shown is nominal (cash terms); equivalent figure in 2020–21 prices is £899 billion. Other components of AME include, for example, net public service pension payments, spending by funded public sector pension schemes, spending by the BBC and public corporations, current VAT refunds, environmental levies, expenditure transfers to the EU and student loans.

Source: Author's calculations using OBR Public Finances Databank (accessed 5 August 2020) and table 3.13 of OBR March 2020 Economic and Fiscal Outlook, with the pensioner/non-pensioner split calculated based on DWP Benefit Expenditure and Caseload Tables 2019.

Spending Reviews typically centre on setting budgets for DEL, which accounts for 42% of all spending.<sup>1</sup> Within that, the government sets resource DEL (day-to-day) and capital DEL (investment) budgets separately. Resource DEL covers the running and administration costs of public services; capital DEL covers money spent building or maintaining physical government assets, such as roads and buildings. Of the 42% of total spending accounted for by DEL, the majority (84%, or 35.7% of TME) is resource DEL (RDEL), with the remainder (16%, or 6.8% of TME) classified as capital DEL (CDEL). The upshot is that less than half of all

<sup>1</sup> The 2010 and 2015 Spending Reviews included parts of AME – in particular, spending on working-age social security – within the envelope, but this approach remains the exception rather than the rule, and we expect the 2020 Spending Review to cover DEL only. For further detail on previous Spending Reviews, see Crawford, Johnson and Zaranko (2018).

government spending falls within DEL, and so less than half of all spending is within the scope of the forthcoming Spending Review.<sup>2</sup>

By far the largest component of AME is social security, accounting for just over 25% of all government spending in 2019–20. Locally financed expenditure (such as spending by local authorities financed out of council tax and business rates revenues) is 7.6% of the total. General government depreciation (the reduction in the value of central and local government assets over time) is 4.8% of the total. Debt interest payments represent 4.3% of the total, and spending by the Scottish Government (which was moved from DEL to AME in October 2018) accounts for a further 4.1% of the total.

## The recent history

Historically, Spending Reviews have tended to cover a period of three years, but have covered as many as four (in 2010 and 2015) and as few as one (in 2013 and 2019). The 2015 Spending Review – carried out by the then Chancellor George Osborne – set four years of resource DEL plans from 2016–17 to 2019–20 and five years of capital DEL plans (up to the current financial year, 2020–21).

The September 2019 Spending Round, held a few months before the December 2019 general election, was limited to a single year, setting departmental resource budgets for 2020–21 only. The then Chancellor Sajid Javid topped up the plans he inherited from his predecessor Philip Hammond and announced spending increases across the board, such that no department faced a real-terms cut. Mr Javid announced a planned real-terms increase of 4.1% in resource DEL and also topped up the plans for investment spending announced at the previous Spending Review by £1.7 billion such that capital DEL was planned to grow by 5.0% between 2019–20 and 2020–21.<sup>3</sup>

In March of this year, alongside his first Budget, Mr Sunak set out the total ‘envelope’ for the 2020 Spending Review. This planned for 2.8% and 3.4% average

<sup>2</sup> This somewhat understates the extent to which the level of DEL can control overall public expenditure, because grants from Westminster to the Scottish, Welsh and Northern Irish governments are determined based on the ‘Barnett formula’, which takes into account departmental spending in England on spending areas that are devolved.

<sup>3</sup> A comparison of these planned growth rates and those in previous Spending Reviews is provided in Section 6.4.

annual real-terms growth over the Spending Review period in RDEL and CDEL, respectively, relative to the 2020–21 plans set by Mr Javid.

These plans have, however, been rendered obsolete by the government’s response to the COVID-19 pandemic. The Office for Budget Responsibility’s most recent estimates indicate that the government’s fiscal response to COVID-19 will add more than £180 billion to total spending in 2020–21, almost £80 billion of which falls within DEL.<sup>4</sup> These in-year spending top-ups are equivalent, respectively, to an astonishing £2,700 and £1,200 per person in the UK.

In July, the Chancellor rowed back from the spending envelope he had committed to in March, citing – quite reasonably – the unprecedented degree of economic uncertainty. He reiterated his intention to set three years of resource budgets (from 2021–22 to 2023–24) and four years of capital budgets (from 2021–22 to 2024–25), but declined to set a fixed envelope, promising only that departmental spending (both day-to-day and investment budgets) would increase in real terms over the period (though, as we discuss in Section 6.4, it is not clear which baseline this will be measured against).

## 6.3 Four big challenges for Spending Review 2020

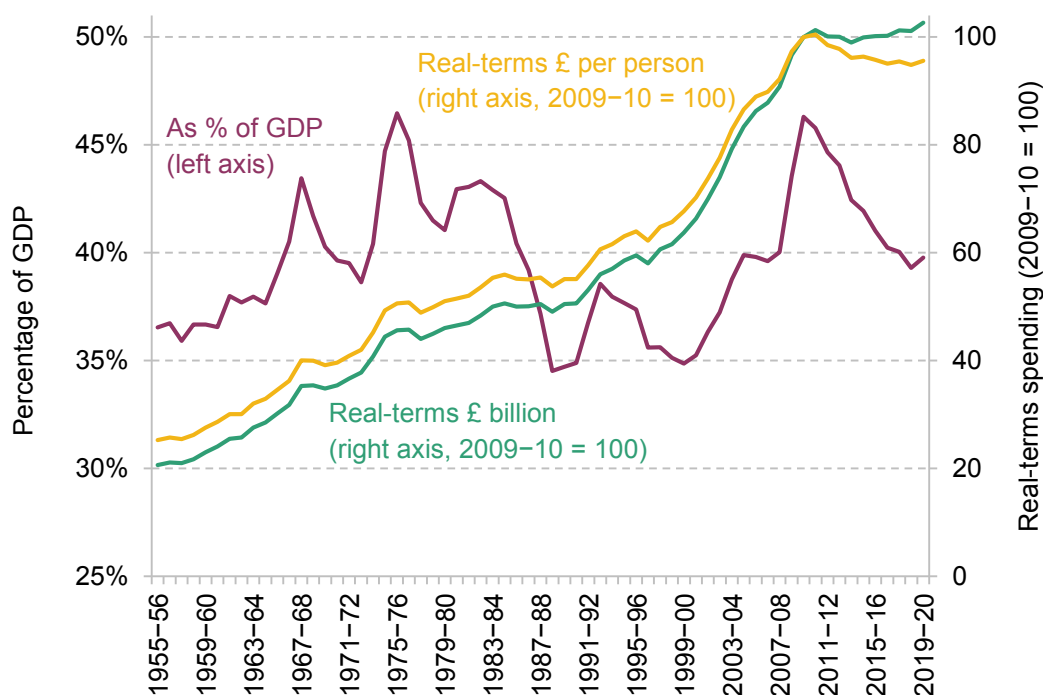
### A decade of austerity

#### Overall government spending

The decade from 2009–10 to 2019–20 was one of unprecedented spending restraint. The coalition and Conservative governments over this period embarked on a major programme of cuts to spending on public services, alongside substantial cuts to the generosity of working-age social security.

As Figure 6.2 shows, this programme of spending cuts kept real-terms total government spending, including both DEL and AME, broadly flat over the decade. This broke with the long-term seemingly inexorable rise of real-terms government spending since the 1950s. Between 1955–56 and 2009–10, government spending

<sup>4</sup> Further details and analysis of the additional spending announced in response to COVID-19 is provided in Section 6.3.

**Figure 6.2. Total managed expenditure**

Note: TME in 2009–10 (the base year) was £876 billion, or £14,037 per person, in 2020–21 prices. The equivalent figures for 2019–20 are £899 billion and £13,421 (also in 2020–21 prices). These are also shown in Table 6.1.

Source: Author's calculations using OBR Public Finances Databank (accessed 5 August 2020), ONS June 2020 GDP deflators and ONS mid-year population estimates.

grew at an average real rate of 3.0% per year. Between 2009–10 and 2019–20, it grew at an average rate of 0.3% per year – the slowest of any decade on record – and fell in per-person terms (as shown in Figure 6.2). This represents the longest sustained squeeze in public spending since records began.

As a share of the economy, government spending fell from a peak of 46.3% of GDP in 2009–10 to 39.8% in 2019–20 – almost exactly the level it was at prior to the financial crisis. That is to say, on the eve of the pandemic, despite a decade of virtually zero real-terms spending growth, the size of the state was the same as in the mid 2000s (but larger than in the late 1980s and 1990s).

### Departmental spending

While total government expenditure remained broadly flat over the decade to 2019–20, beneath the surface there were major shifts in its components. Higher

spending on the state pension and other pensioner benefits (despite a sharp rise in the female state pension age), alongside a substantial increase in the amount of locally financed expenditure, saw AME rise from 52% to 58% of the total.<sup>5</sup> Over the same period, spending by central government on public services – as measured by total DEL – fell by 7.8% in real terms, or 14.1% in real per-person terms.

These overall cuts to DEL left less money for day-to-day public service spending by central government.<sup>6</sup> Resource DEL fell by 0.7% per year, or 1.4% per year in per-person terms. This compares with average growth of 4.2% per year (3.5% in per-person terms) over the decade up to 2009–10. In other words, despite a decade of near-uninterrupted (though relatively anaemic) economic growth, day-to-day spending by central government on public services was 6.6% lower in 2019–20 than ten years previously and 13.0% lower once population growth is taken into account. We should not lose sight of this remarkable fact. This can be seen graphically in Figures 6.3 and 6.4.

Outside of the Department of Health – whose budget was repeatedly protected from cuts during the 2010s – the scale of spending cuts was even greater. Day-to-day departmental budgets outside of Health were cut by a fifth between 2009–10 and 2019–20; after accounting for population growth, spending per head fell by just over a quarter. In contrast, the day-to-day Health budget increased by 21.3% over the decade (13.1% in per-person terms).

Investment spending followed a much bumpier, but less decisively downward, path than RDEL. Capital spending by departments increased at a rapid rate over the course of the 2000s, with an average annual real growth rate of 11.6% between 1999–00 and 2009–10. Capital budgets were then cut sharply by more than 30% in the years immediately after 2009–10, before increasing gradually in the years after 2012–13 (although not by enough to reverse the earlier cuts). This, along with the paths for TME, RDEL and RDEL excluding Health since 2009–10, is shown in Figures 6.3 and 6.4.

<sup>5</sup> In addition, reclassifications have moved some components of spending from DEL to AME (a major example being Scottish Government spending, which was reclassified in October 2018).

<sup>6</sup> It should be noted that some of the reduction in central government spending on public services was offset by an increase in locally financed expenditure (which falls within AME), and in particular through increases in council tax for local authorities. For further detail on local government funding in England, see Harris, Hodge and Phillips (2019).

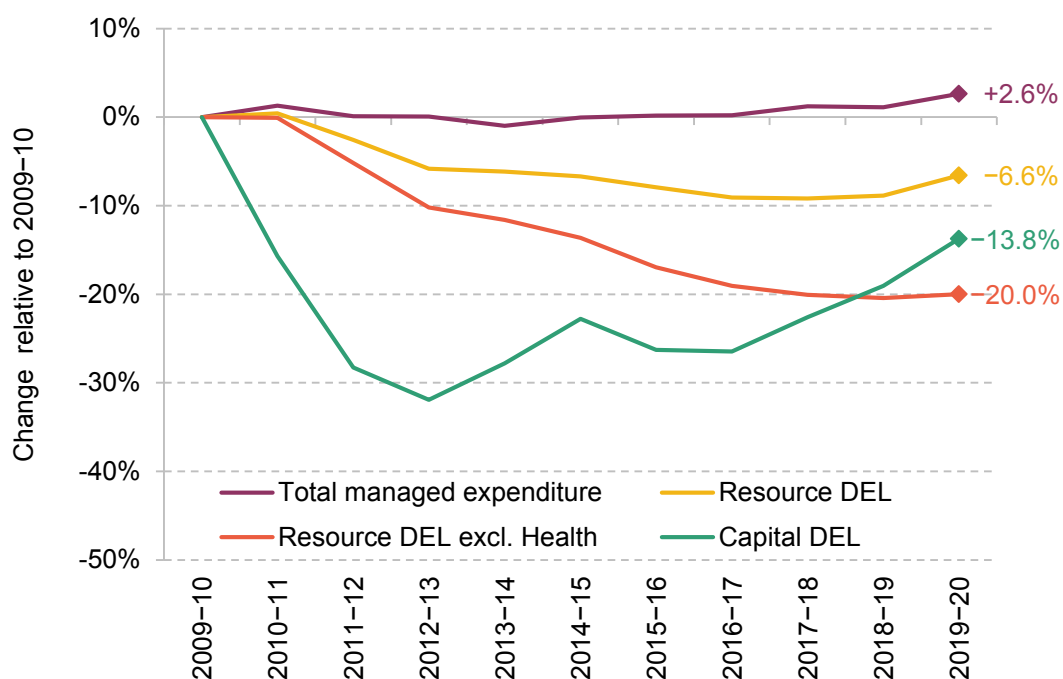
Table 6.1. Government spending over the past two decades

	1999–00	2009–10	2019–20
<b>Total managed expenditure</b>			
£ billion (2020–21 prices)	£557.9bn	£875.7bn	£898.8bn
£ per person (2020–21 prices)	£9,499	£14,037	£13,421
% of GDP	34.9%	46.3%	39.8%
<b>Resource DEL</b>			
£ billion (2020–21 prices)	£229.9bn	£345.6bn	£322.8bn
£ per person (2020–21 prices)	£3,915	£5,539	£4,820
% of GDP	14.4%	18.3%	14.3%
<b>Resource DEL excl. Department of Health</b>			
£ billion (2020–21 prices)	£169.0bn	£233.4bn	£186.7bn
£ per person (2020–21 prices)	£2,877	£3,740	£2,788
% of GDP	10.6%	12.3%	8.3%
<b>Capital DEL</b>			
£ billion (2020–21 prices)	£24.0bn	£72.1bn	£62.2bn
£ per person (2020–21 prices)	£409	£1,157	£929
% of GDP	1.5%	3.8%	2.8%

Note: Resource DEL and capital DEL here denote the OBR's definition of PSCE in RDEL and PSGI in CDEL, respectively, adjusted for historical discontinuities. 2019–20 figure is also adjusted to remove additional resource spending related to employer pension contributions. Department of Health is Department of Health and Social Care after 2018. Higher spending as a % of GDP in 2009–10 is driven partly by a reduction in the denominator (GDP) following the financial crisis and associated recession; two years before, spending was 40.0% of GDP.

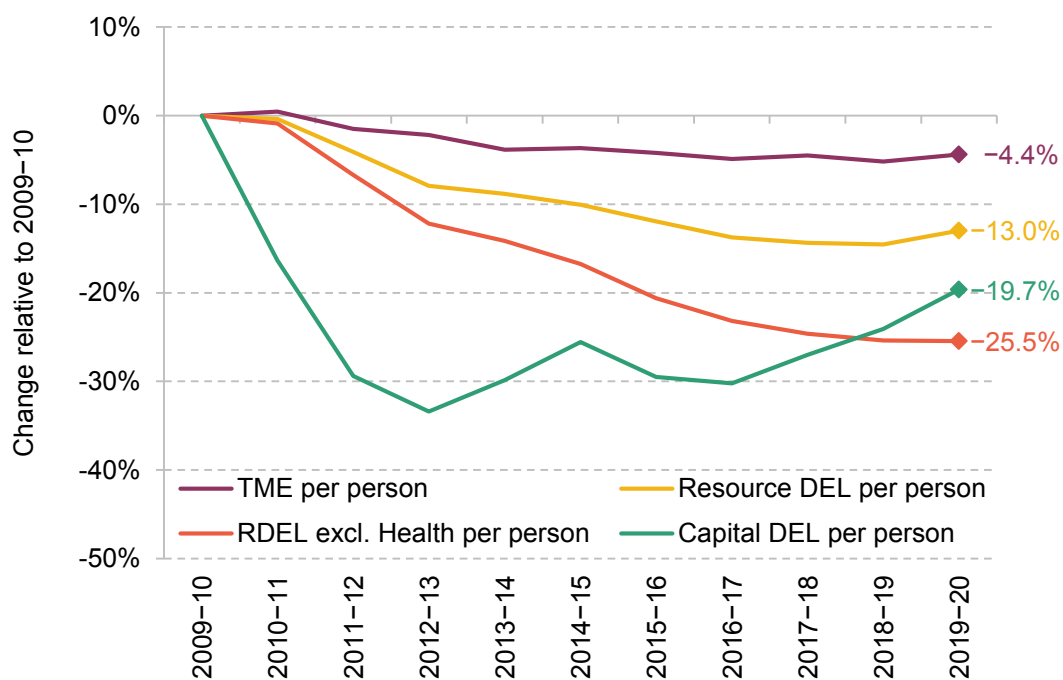
Source: Author's calculations using OBR Economic and Fiscal Outlook (October 2018 and March 2020), OBR Public Finances Databank (accessed 5 August 2020), HM Treasury Public Expenditure Statistical Analyses (various) and ONS June 2020 GDP deflators.

Figure 6.3. Real-terms spending since 2009–10



Note and source: As for Table 6.1.

Figure 6.4. Real-terms spending per person since 2009–10

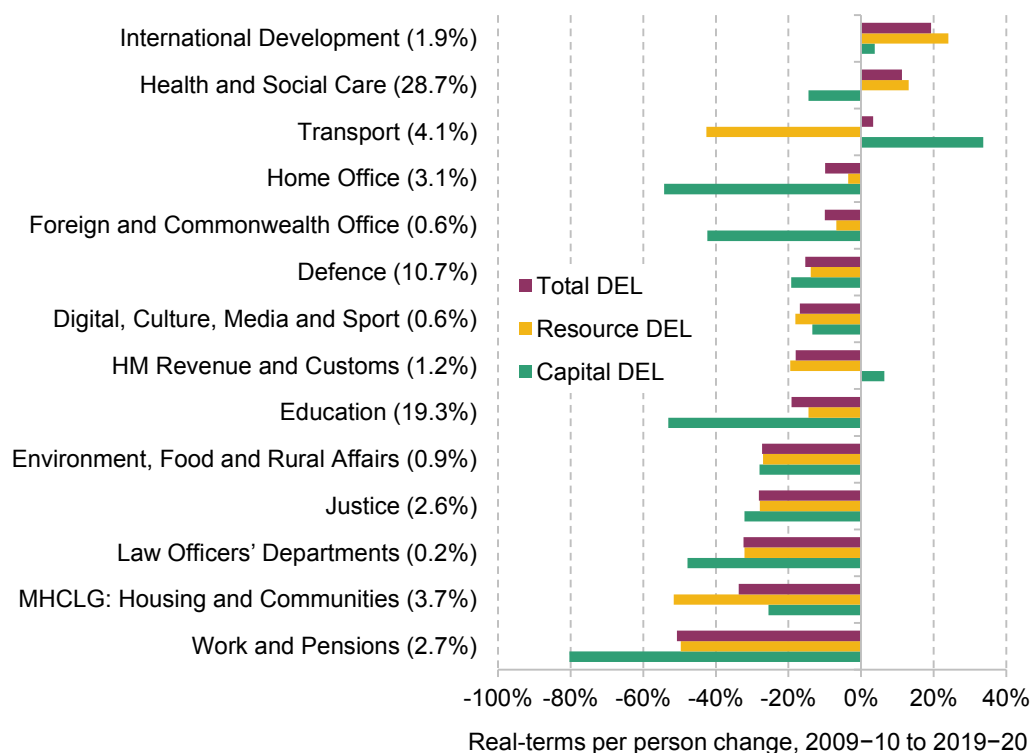


Note and source: As for Table 6.1.

### Spending cuts have not fallen equally across departments

As indicated above, some departments were relatively protected over the 2010s and shielded from cuts. Other departments were less fortunate. This can be seen in Figure 6.5, which shows the real per-person change in departmental budgets between 2009–10 and 2019–20. The now-abolished Department for International Development (DfID) and the Department of Health and Social Care (DHSC) have enjoyed real-terms increases in their per-person resource budgets, and the DfID capital budget also increased in per-person terms. In contrast, in some departments, per-person resource budgets have fallen by more than a quarter. These include the

**Figure 6.5. Real-terms per-person departmental budget changes, 2009–10 to 2019–20**



Note: Figures in parentheses denote each department's share of total departmental expenditure limits (TDEL) in 2009–10. These do not sum to 100% due to the exclusion of the local government component of MHCLG and block grants to the devolved governments of Scotland, Wales and Northern Ireland. Resource budgets shown here exclude depreciation.

Source: Author's calculations using HM Treasury Public Expenditure Statistical Analyses (various) and ONS June 2020 GDP deflators, with population figures taken from supplementary expenditure table 4.3 of OBR's March 2020 Economic and Fiscal Outlook.

Department for Work and Pensions (DWP),<sup>7</sup> the Department for Environment, Food and Rural Affairs (Defra), the Ministry of Justice, the Law Officers' Departments (which includes the Crown Prosecution Service), and the Housing and Communities budget within MHCLG.

Some of these figures mask considerable within-department variation. Within the Department for Education budget, for example, spending on early years (3- and 4-year-olds) increased over this period with extensions to funded childcare entitlements, while funding for further education and sixth-form colleges was cut after 2011 (Britton, Farquharson and Sibieta, 2019). While funding allocated to schools rose in real per-pupil terms, cuts to spending by local authorities and funding for school sixth forms meant total per-pupil spending on schools fell by 9% in real terms between 2009–10 and 2019–20 (Sibieta, 2020). Within the DHSC budget, the NHS England budget was steadily increased, but other components of the health budget (such as public health initiatives, and education and training) have faced deep cuts. Between 2013–14 and 2019–20, while the NHS England budget increased by 19.0% in real terms (14.2% in real per-person terms), non-NHS health budgets were cut by 6.7% (10.4% per person).

Many of the public services provided by the departments on the receiving end of large cuts were, not surprisingly, showing clear signs of strain even prior to the outbreak of COVID-19.<sup>8</sup> For example, the number of prisoner-on-prisoner assaults in England and Wales almost doubled between March 2010 and March 2020; the number of assaults on prison staff more than trebled over that period (Ministry of Justice, 2020). Following sizeable cuts to the Crown Prosecution Service, concerns have been raised over its performance in sexual offence cases (Institute for Government, 2019).

Local government is another area to have faced substantial cuts and to now be showing signs of strain. For councils in England, a 77% reduction in per-person grant funding from central government was only partially offset by increases in council tax and business rates revenues. As a result, local government revenues fell

<sup>7</sup> This is the cost of running the department (i.e. administering the social security system), and does not include the cash payments made to benefit recipients.

<sup>8</sup> It is worth noting that many public services appeared to cope fairly well in the years immediately after 2010, with signs of deterioration in performance appearing (in most cases) only after around 2015. For an excellent discussion, see Institute for Government (2019).

by 18% between 2009–10 and 2019–20 (Harris, Hodge and Phillips, 2019). Local authorities in more deprived areas, which were more reliant on grants from central government to begin with, saw bigger cuts in funding than those in less deprived areas. In response, local authorities have had to make deep cuts to spending on some services. Net spending on social care for adults aged 65 and above was cut by approximately 18% over the decade (despite the population aged 65 and over in England growing by more than 20% over that period); other budgets (such as housing, culture and recreation, and planning and development) were cut to an even larger degree (Harris, Hodge and Phillips, 2019). Even areas that have been relatively protected from cuts, such as children’s social care, have been showing signs of deteriorating service quality and a greater focus on statutory responsibilities (Britton, Farquharson and Sibiet, 2019; Institute for Government, 2019).

In sum, following a decade of swingeing spending cuts to public services outside of the NHS, it is difficult to see how further savings could be found without severe consequences for the range and quality of service provision.

### Social security

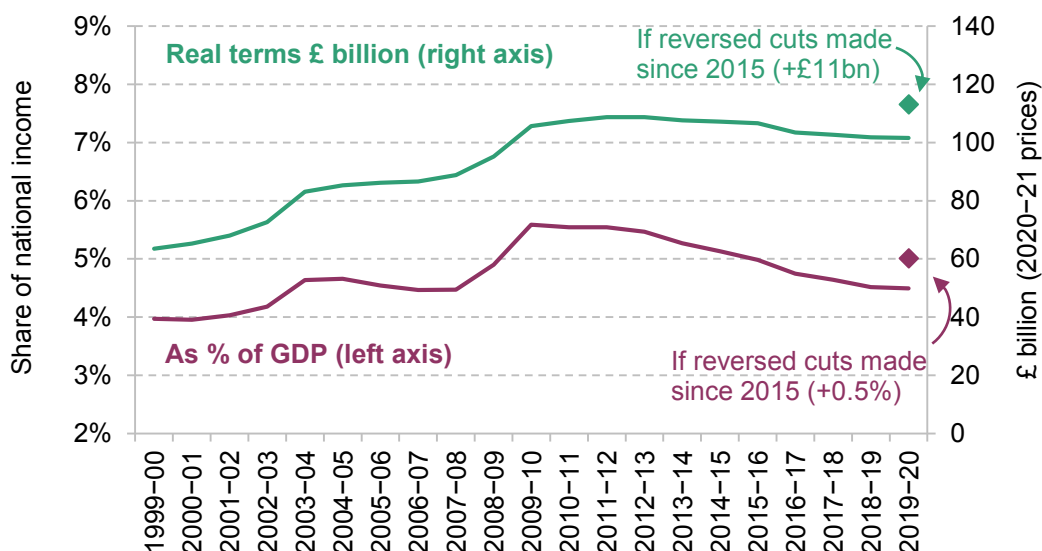
Spending cuts have not been limited to public services. Figures 6.6 and 6.7 show how spending on working-age and pensioner social security, respectively, evolved between 1999–2000 and 2019–20. After a sharp increase during the financial crisis and ensuing recession, spending on working-age social security fell steadily as a share of national income until 2019–20, and has fallen slightly in real terms over that period. An important driver of this has been discretionary policy measures designed to reduce the generosity of the system. Cuts from just the changes made since June 2015 meant that spending on working-age social security was £11 billion lower by 2019–20 than it would otherwise have been.<sup>9</sup>

Spending on pensioner social security has increased in real terms since 2009–10, but has been falling as a share of national income since 2012–13. This is primarily due to increases in the female state pension age since 2010. For those who are drawing a pension, the generosity of benefits has been largely protected, with the

<sup>9</sup> Note that this is just shy of the £12 billion commitment made in the Conservatives’ 2015 general election manifesto, although delivered by year 4 of the parliament (rather than year 2, as committed to in the election manifesto).

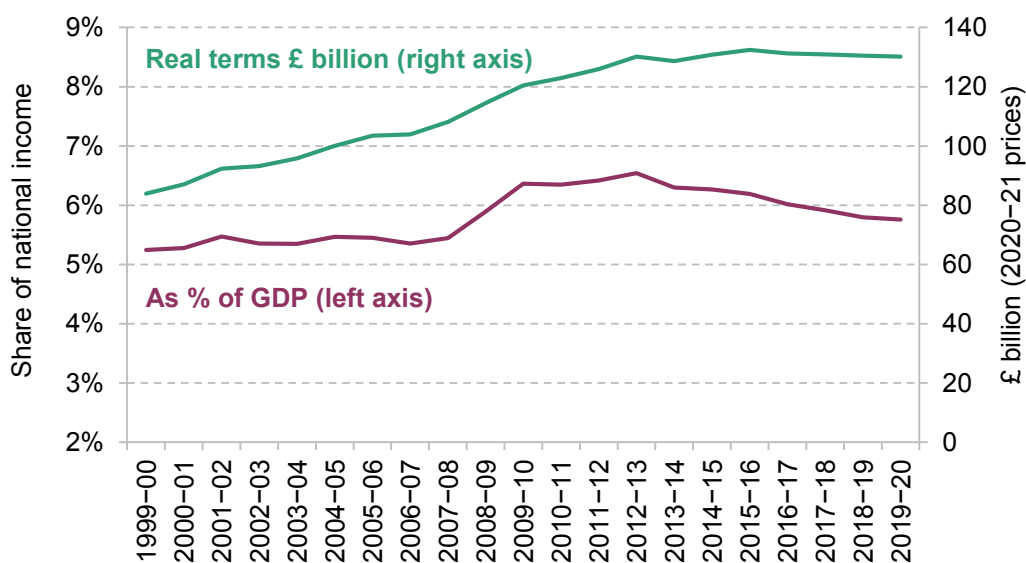
‘triple lock’ making the state pension more generous than it would have been had it ‘only’ been indexed in line with growth in earnings.

**Figure 6.6. Working-age social security spending since 1999–2000**



Source: Author's calculations using DWP Benefit Expenditure and Caseload Tables 2019, OBR Public Finances Databank (accessed 5 August 2020), OBR Policy Measures Database and ONS June 2020 GDP deflators.

**Figure 6.7. Pensioner social security spending since 1999–2000**



Source: As for Figure 6.6.

The overall result is that, for every £1 of social security spending on working-age households in 2009–10, pensioner households received £1.14 in social security spending. By 2019–20 the gap had doubled, bringing this figure to £1.28.

### Public sector pay

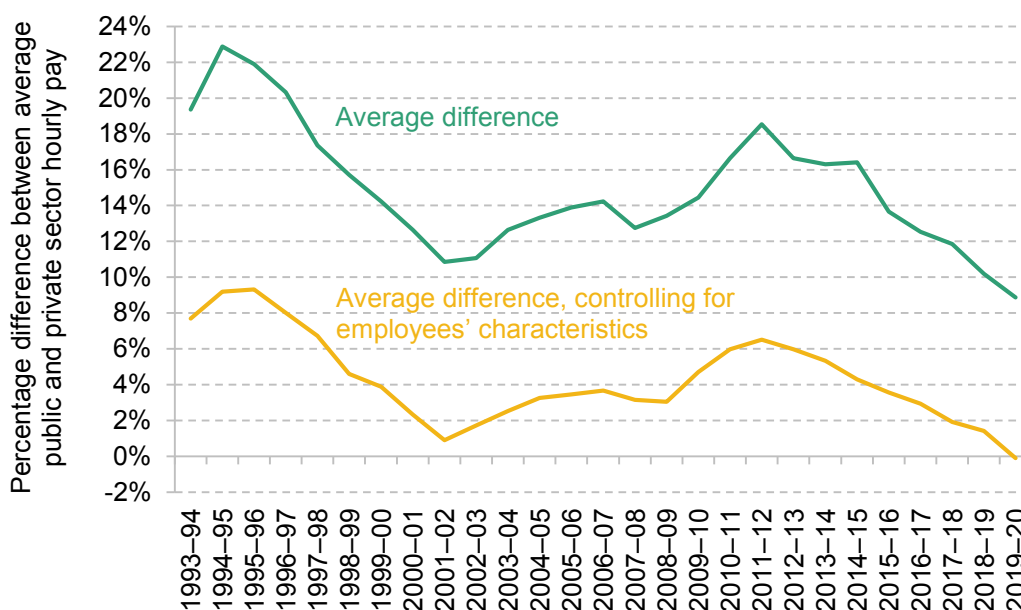
The cost of employing public sector workers is a major component of government expenditure. In 2019–20, the UK general government spent £204 billion employing around 5.4 million people (in both central and local government, and the devolved administrations). As part of the broader austerity programme, pay growth in the public sector was highly restrained in the years after 2010. Public sector pay was frozen in cash terms for all but the lowest-earning employees in 2011–12 and 2012–13; pay scales were then increased by 1% per year in cash terms in the years that followed, before the pay cap was lifted in 2017. Despite above-inflation pay awards in recent years, average earnings in the public sector in the first quarter of 2020 were 1.5% lower than a decade previously.<sup>10</sup>

One consequence of pay restraint in the public sector has been a narrowing of the gap between public and private sector pay. Figure 6.8 shows that in 2019–20, average hourly pay in the public sector was around 9% higher than in the private sector. This gap between average public and private sector pay is now at its lowest level in decades, lower even than in the early 2000s when some parts of the public sector were plagued by acute shortages and recruitment challenges. And, while public sector workers earn more on average, this difference disappears – and even becomes slightly negative – once observed worker characteristics such as education and age are taken into account.<sup>11</sup> Recent public sector pay awards, and their potential impact on the public–private pay differential, are discussed in Section 6.4.

Pay restraint in the public sector since 2010 has exacerbated difficulties with recruitment and retention. The School Teachers’ Review Body (2020) has noted, for example, that the overall target for postgraduate initial teacher training was missed in 2019–20 for the eighth successive year, with particular challenges in

<sup>10</sup> Source: Author’s calculations using ONS series KAD8 (public sector excluding financial services average weekly earnings) and L522 (CPIH index).

<sup>11</sup> Public and private sector workers differ in the number of hours that they work, and public sector workers are more likely to be highly educated professionals who command higher wages in the labour market. Public sector workers are also more likely to be women (who are more likely than men to work part-time). For more details, see Cribb, Emmerson and Sibbets (2014).

**Figure 6.8. Difference between average public and private sector pay**

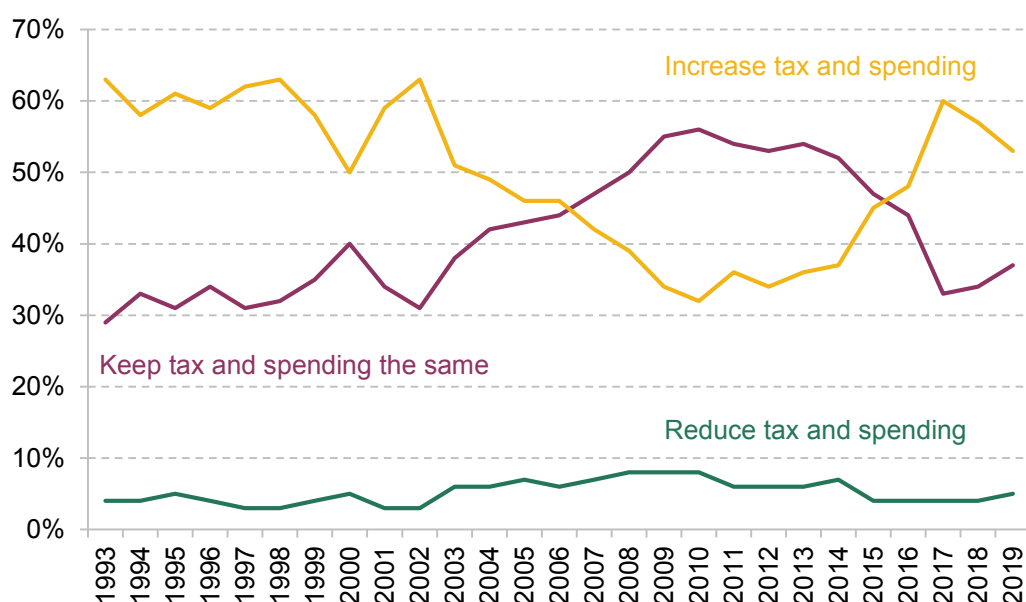
Note: Difference controlling for workers' characteristics controls for differences in age, education, experience and region, all interacted with sex, following the same methodology as in Cribb, Emmerson and Sibiet (2014).

Source: Author's calculations using Labour Force Survey.

subjects such as maths, science and modern foreign languages. The NHS Pay Review Body (2020) has raised concerns over the impact of persistent workforce gaps and high vacancy rates. In some cases, these recruitment pressures have already led to decisions to increase pay; for example, the government is committed to raising teacher starting salaries in England to £30,000 by 2022 (Sibiet, 2020). Still, pressures in other sectors are likely to remain and decisions over departmental budgets will be made against this backdrop.

### There are signs that the public wants an end to austerity

One consequence of the decade of austerity has been shifting public attitudes towards the level of tax and spending. In particular, prior to the COVID-19 pandemic, there were signs of an increased willingness from the public, after a decade of spending cuts, to pay more in tax to finance higher spending on public services. Figure 6.9 shows that support for increased levels of tax and spend was around 60% in the late 1990s, falling to 32% in 2010. In 2019, support for higher tax and spending stood at 53%. This is down from 60% in 2017, with the reduction

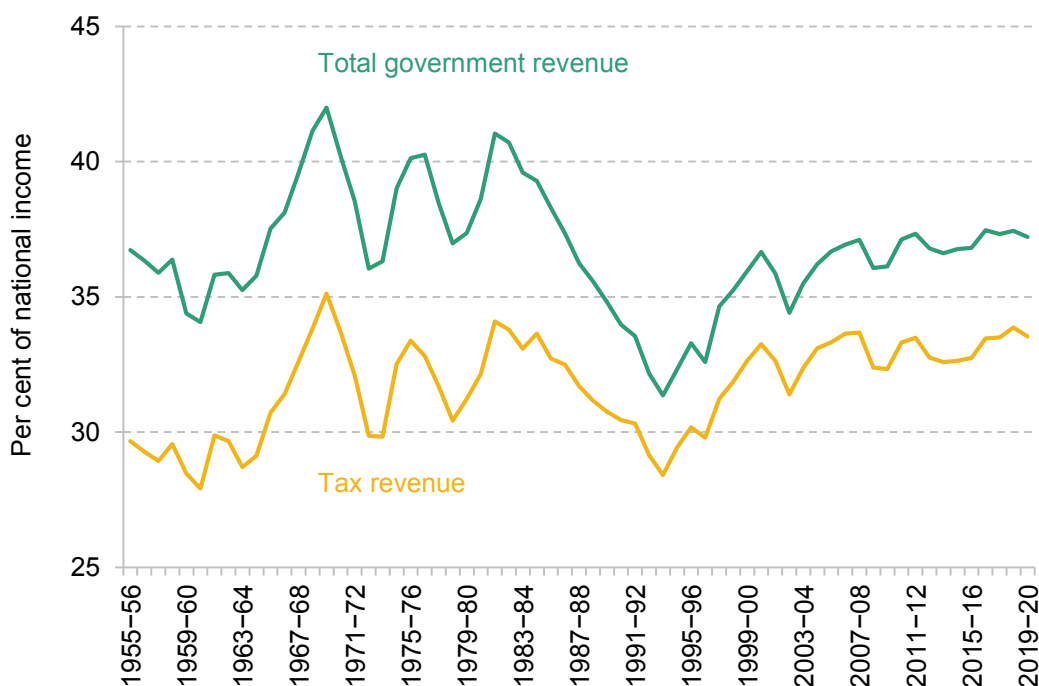
**Figure 6.9. Changing attitudes towards levels of tax and spending**

Source: NatCen, British Social Attitudes Survey 2019, <https://natcen.ac.uk/news-media/press-releases/2020/march/backing-for-more-taxation-and-public-spending-falls-among-labour-supporters/>.

perhaps driven by the substantial increases in public spending (notably on the NHS) announced since then. Nonetheless, a majority of the public think that the government should increase the level of tax and spending – including 52% of Conservative voters. Only 5% of voters think that the level of tax and spending should be reduced.

This suggests some appetite from the public for higher levels of public spending – perhaps even if taxes have to rise to pay for it. That is, they are keen to see an end to austerity for public services.

Depending on how one defines austerity, it has arguably already come to an end, in the sense that public spending is on a decisively upwards trajectory. The 2019 Spending Round announced spending increases across the board, such that no department faced a real-terms cut in 2020–21 (Crawford and Zaranko, 2019). But, as demonstrated earlier in the chapter, the increases in this settlement look modest compared with the cuts imposed during the previous decade, with day-to-day budgets outside of Health 25% lower in 2019–20 than in 2009–10. And, in any

**Figure 6.10. Government revenue**

Source: OBR Public Finances Databank (accessed 5 August 2020).

case, there are still cuts to social security working their way through the system, in the form of the ‘two-child limit’ in tax credits and universal credit.

It is also important to note that taxes (measured as a share of national income) are already at a high level by UK historical standards, as shown by the yellow line in Figure 6.10. Only in nine of the last 65 years were tax revenues higher as a share of national income than in 2019–20. Any increases in public spending financed by higher taxes would come against this backdrop. This is important context for Mr Sunak’s choices at the Spending Review later this year.

### Additional spending in response to COVID-19

Spending plans for 2020–21 were set at the September 2019 Spending Round, and topped up at the March 2020 Budget. Under those plans, resource DEL and capital DEL were planned to increase by 6.2% and 16.5%, respectively, in real terms between 2019–20 and 2020–21 (planned cash settlements are shown in Table 6.2).

Since then, the government’s response to the coronavirus has required huge sums of additional public spending in the financial year in progress. On 14 July, the Office

for Budget Responsibility estimated that the government's coronavirus policies would add £178 billion to total spending in 2020–21. Combined with the additional £3 billion announced for NHS England on 17 July (with approximately £0.6 billion of associated funding for Scotland, Wales and Northern Ireland via the Barnett formula), this implies a total increase of £182 billion this year. That would represent an astonishing 20% increase relative to the March forecast for total managed expenditure. This figure could, of course, be revised upwards if the government makes further spending announcements. It also relates only to *discretionary* spending increases (such as increased health spending or more generous support through the benefits system) and does not include, for example, the higher spending on universal credit due to rising unemployment.

Table 6.2 provides a breakdown of this additional spending into the categories used for planning public expenditure. Of the £181.8 billion of extra spending in 2020–21, the largest component (£84.9 billion) falls within resource AME. Almost all of this is the estimated cost of the Coronavirus Job Retention Scheme (or 'furlough' scheme), the Self-Employment Income Support Scheme, and temporary increases in the generosity of working-age welfare payments (mainly through a one-year boost to the generosity of universal credit; see Chapter 8). A further £17.0 billion falls within capital AME, made up of the expected fiscal costs of writing off loans to businesses (made through the Bounce Back Loan Scheme and the Coronavirus Business Interruption Loan Scheme).

This leaves £79.9 billion of additional funding added to departmental expenditure limits for 2020–21 (so far), and therefore directly relevant for the Spending Review. £7.1 billion of this is capital DEL, made up of extra funding for cycling and walkways, green homes grants, a top-up to the health capital budget, and the infrastructure package announced on 30 June. Two features of the capital spending package are notable. First, some of the funding for the infrastructure package is not 'new' but brought forward from future years, hence the negative figures for capital DEL in 2021–22 and 2022–23 in Table 6.2. Second, the Office for Budget Responsibility (2020b) now expects departments to underspend their capital budgets by £5 billion more than the £4 billion expected in March (in large part because of the shutdown of the construction sector), taking the total expected underspend in capital DEL to £9 billion. This means that the vast majority

(£6.4 billion) of the £7.1 billion ‘increase’ in capital DEL is paid for by reallocating existing budgets.<sup>12</sup>

**Table 6.2. Estimated additional spending in response to COVID-19 as at 17 July (£ billion, cash terms)**

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
<b>Total (£ billion)</b>	<b>4.7</b>	<b>181.8</b>	<b>2.3</b>	<b>0.2</b>	<b>1.4</b>	<b>0.8</b>
<i>of which:</i>						
Resource DEL	2.2	72.8	0.6	-	-	-
Capital DEL	-	7.1	-0.7	-0.7	0.6	-
Resource AME	2.5	84.9	2.3	0.8	0.8	0.8
Capital AME	-	17.0	-	-	-	-
<b><i>Memo: March 2020 plans</i></b>						
<i>Total spending</i>	<i>886.8</i>	<i>927.7</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>Resource DEL</i>	<i>330.4</i>	<i>360.6</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>Capital DEL</i>	<i>71.1</i>	<i>88.5</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>

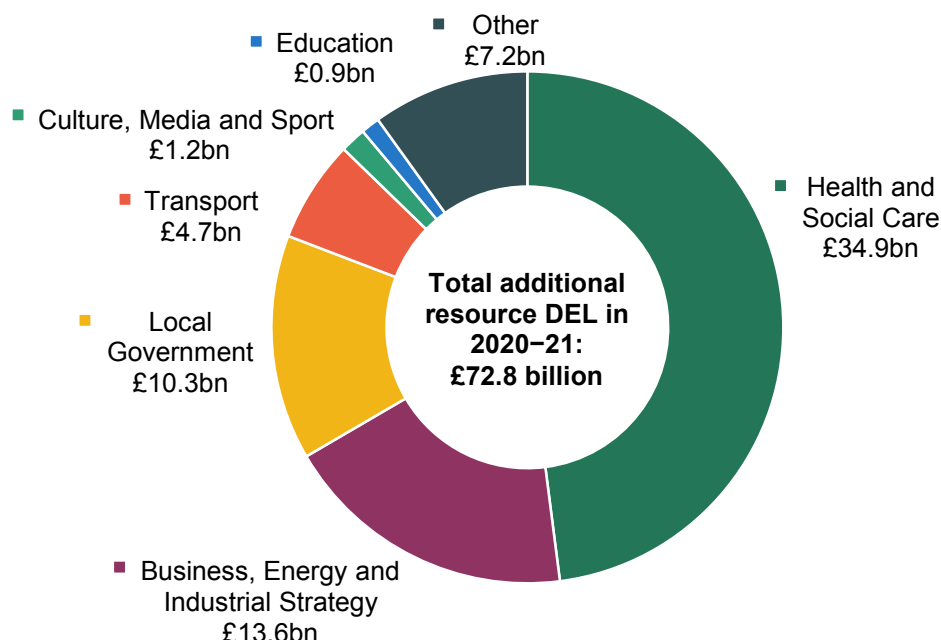
Note: Figures are for discretionary spending only and are accurate as of 17 July. Resource DEL and capital DEL are on the HM Treasury definition. Total spending refers to total managed expenditure.

Source: OBR’s Coronavirus Policy Monitoring Database, 14 July 2020

(<https://obr.uk/coronavirus-analysis/>); Prime Minister’s statement on coronavirus, 17 July 2020 (<https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-17-july-2020>); HM Treasury, Budget 2020.

<sup>12</sup> This is made up of £5 billion of underspends, plus (net) £1.4 billion of capital spending brought forward from future years. For a discussion of this issue, and the implications for the devolved governments, see Phillips (2020).

**Figure 6.11. Additional day-to-day public service funding allocated (so far) in 2020–21 in response to COVID-19, by department**



Note: Figures accurate as of the time of writing. ‘Other’ includes funding to boost work-search, skills and apprenticeships, funding for public sector and social housing decarbonisation, additional funding for charities, additional funding for the devolved administrations and ‘other public services’.

Source: Author’s calculations using the OBR’s Coronavirus Policy Monitoring Database, 14 July 2020 (<https://obr.uk/coronavirus-analysis/>) and the Prime Minister’s statement on coronavirus, 17 July 2020 (<https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-17-july-2020>).

The remaining £72.8 billion of COVID-related spending is additional resource DEL, a breakdown of which is provided in Figure 6.11.<sup>13</sup> The lion’s share is for the Department of Health and Social Care, which has been allocated an additional £34.9 billion in 2020–21 (a 25% increase on its previously set budget for 2020–21). In the Summer Economic Update on 8 July, the Treasury indicated that of this, more than £15 billion is for procurement of personal protective equipment (PPE) and £10 billion is for the government’s ‘test and trace’ programme (HM Treasury, 2020a). These are truly astonishing sums. £15 billion on PPE is equivalent to

<sup>13</sup> Note that the OBR also expects an additional £5 billion of departmental underspends on resource budgets, relative to what was expected in March. This means that resource DEL is in fact expected to be £67.8 billion, not £72.8 billion, higher this year and takes the total increase in expected underspending since March to £10 billion.

around £8,400 per NHS employee.<sup>14</sup> The £10 billion cost of ‘test and trace’ is equivalent to more than £350 for every household in the UK. The OBR’s costings imply this is all for the 2020–21 financial year. A crucial consideration for the Spending Review will be the extent to which this spending needs to continue into future years.

The £13.6 billion allocated to the Department for Business, Energy and Industrial Strategy (BEIS) is for measures to support businesses during the pandemic (i.e. business grant schemes). Of the £10.3 billion allocated to local government, £6.7 billion is in respect of business rates relief. Depending on the damage done to business balance sheets in recent months, and the future course of the pandemic and economic recovery, some support of these types may need to be extended. Some of the other funding for local government is also likely to be needed to continue into future years. Most obviously, given the well-publicised issues in care homes and broader challenges facing the sector, reversing the additional local government funding for social care would be fraught with challenges.

Other notable components of the resource DEL package include almost £5 billion to support public transport services, a £1.2 billion Culture Recovery Fund and around £1 billion of additional funding for schools.

These totals do not include any further funding measures that may be required before the end of 2020–21. For instance, the NHS and social care services may need further top-ups in the event of a ‘second wave’ in the winter alongside the usual flu season. Public transport numbers may never return to the levels expected prior to the pandemic, which could mean the government has to provide additional support to train operating companies, Transport for London and bus services. Financial support for universities and further education colleges could be needed in the aftermath of the A level and GCSE results debacle.

As noted earlier, a portion of this extra spending is likely to be offset by underspends elsewhere (the OBR now estimates that departments will underspend their day-to-day budgets by £5 billion more than the £3 billion it expected in March). A further portion could potentially be offset by lower spending on other

<sup>14</sup> Some of the PPE procured under the auspices of the NHS may have gone to social care providers. £15 billion is equivalent to approximately £4,100 for every health and social care worker in the UK.

items, particularly those tied to the size of the economy. The government is committed to spending 0.7% of national income on official development assistance (ODA, or overseas aid) and at least 2% of national income on defence and national security. The COVID-19 outbreak, and the public health response to it, are expected to lead to a sharp reduction in economic activity this year. A smaller economy means that a lower level of £ spending is required to meet targets couched in terms of a percentage of national income. The Foreign Secretary, Dominic Raab, (whose remit now includes international development) has already indicated that the government plans to cut £2.9 billion from the ODA budget this year (bringing spending back to its 0.7% target) (Raab, 2020). It remains to be seen whether a similar approach will be taken to defence spending, although an in-year cut to the defence budget seems unlikely, not least because it would be difficult to do efficiently.

Looking beyond this year, even if the (worst of the) COVID-19 pandemic is behind us, the fallout may still require higher spending on public services than would otherwise have been the case. This could be because new programmes such as NHS Test and Trace need to continue or because the public simply demands more spending to ensure a better level of preparedness for the next pandemic or other emergency.

Another important consideration is the extent to which ‘catch-up’ funding is needed to help public services recover from this year’s disruptions. Within the NHS, all non-urgent planned care was postponed during the peak of the pandemic, causing a build-up of demand and a rapid increase in waiting times for treatment (Royal College of Surgeons of England, 2020). Recent estimates from the Health Foundation suggest that it could require £560 million per year to return waiting times to the 18-week standard (Charlesworth, Watt and Gardner, 2020). The pandemic has also caused delays outside the health service. To take just one example, recent work from the Institute for Government shows that delays to court hearings have contributed to an unprecedented backlog in court cases, with average waiting times potentially set to increase to the highest level ever recorded (Davies, Guerin and Pope, 2020). The authors estimate that an extra £55–£110 million of spending per year for two years would be needed to run the extra trials necessary to resolve the backlog. These are not huge sums on their own, but this is just one example of many.

All told, the additional spending announced in response to the coronavirus is unlikely to be just a temporary ‘blip’. Some of the funding already announced may need to be permanent or semi-permanent in nature, and so essentially included in the Spending Review baseline. Recovery from the pandemic and associated economic downturn is also likely to place additional demands and funding pressures on public services in the years ahead. The 2020 Spending Review will have to tackle these issues head on.

## Brexit

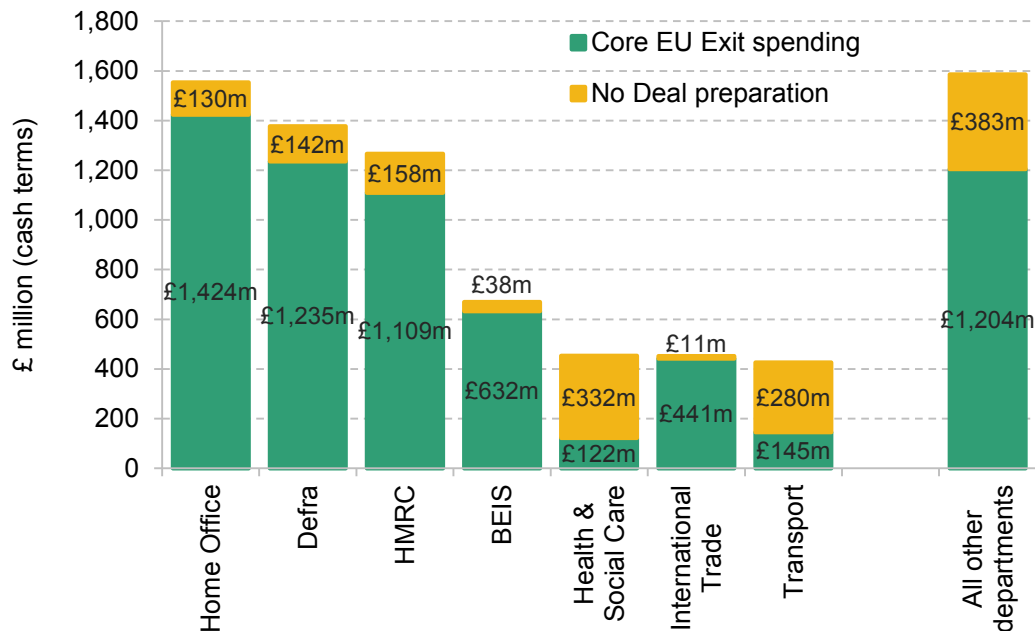
This year’s Spending Review will also be the last before the end of the transition period with the European Union, which comes to an end on 31 December 2020. The impact of the UK’s departure from the European Union on the economy and public finances remains highly uncertain – not least because the nature of the UK’s future relationship with the EU is still being negotiated, and a disorderly ‘no deal’ departure remains a possibility. There is agreement among economists that the economy will end up being smaller outside of the EU than if the UK had remained a member, but how much smaller is far from certain.

When setting public spending plans three or four years into the future, a central consideration for the Chancellor is what we expect to happen to GDP and therefore tax revenues. The combination of Brexit and COVID-19 means that forecasts for GDP and tax revenues are subject to more uncertainty now than at perhaps any point in the past. Holding a multi-year Spending Review in such circumstances would be a questionable decision – an issue to which we return in Section 6.5.

Brexit also has a direct effect on public spending. Since the referendum, around £8 billion has been allocated to departments to prepare for and deliver the UK’s departure from the EU. More than half of this has gone to just three departments: the Home Office, the Department for Environment, Food and Rural Affairs (Defra) and HM Revenue and Customs (HMRC). This is illustrated in Figure 6.12. In 2020–21 alone, £2 billion of funding has been allocated to prepare for EU exit. Of that, some £1.3 billion has been allocated to the three departments listed above.

Some of this spending – such as spending on ‘no deal’ preparation – is likely to stop once negotiations come to an end and the future relationship between the UK and EU is determined. However, some departments will likely require permanently increased funding as they take on additional post-Brexit responsibilities. These are

**Figure 6.12. Cumulative spending on Brexit preparation by selected departments, 2016–17 to 2020–21**



Note: Figures denote the cumulative sum allocated to departments between 2016–17 and 2020–21, in nominal (cash) terms. Core spending is for any Brexit scenario. Defra is the Department for Environment, Food and Rural Affairs; HMRC is Her Majesty's Revenue and Customs; BEIS is the Department for Business, Energy and Industrial Strategy.

Source: HM Treasury, European Union Finances 2019, July 2020.

likely to include designing and operating a new immigration system (a responsibility of the Home Office), farm regulation and subsidy (Defra), and employing tens of thousands of additional customs agents (HMRC).

This relates to a broader question over the extent to which the UK government decides to replace existing EU spending in the UK or on the UK's behalf. The government has already committed to maintain the current level of support for farmers and to replace European structural and investment funds with a UK-wide Shared Prosperity Fund.<sup>15</sup> But the Treasury has stated that decisions over other EU programmes will be made at the upcoming Spending Review (HM Treasury, 2020c). These include, among other things, ODA spending on the UK's behalf

<sup>15</sup> For a discussion of the issues around the design of the UK Shared Prosperity Fund, see Davenport, North and Phillips (2020).

(which amounted to £945 million in 2019 and counts towards the UK's 0.7% target<sup>16</sup>) and research grants to UK universities. Some of the increase in spending between 2019–20 and 2023–24 pencilled in at the March 2020 Budget was implicitly earmarked for domestic replacements for EU spending programmes such as these.

## Levelling up

A Spending Review is an opportunity for the government to set out its domestic policy agenda, identify priority areas and allocate funding towards them. At the September 2019 Spending Round, for example, the largest funding increases were for the priority areas of the NHS, schools and the police (Crawford and Zaranko, 2019). At this Spending Review, while we can surely expect further funding increases for those areas – at least against a pre-COVID baseline – the focus is likely to be on the government's much-trumpeted 'levelling-up' agenda.

UK regional inequalities and the 'levelling-up' agenda are discussed in more detail in Chapter 7. These inequalities in the UK are deep-rooted, complex and multifaceted. There are no simple policy solutions to address the fact that, for example, 54% of working-age adults in London have a degree-equivalent qualification or higher, compared with 32% in the North East of England.<sup>17</sup> Nonetheless, if this problem is to be solved, public spending will be part of the answer, and the Spending Review is an opportunity for the government to advance a concrete policy agenda. Delivering such an agenda, alongside a response to the pressures of COVID-19, Brexit and a decade of austerity, will be a highly testing task for the Chancellor, his Treasury team, and officials across government.

<sup>16</sup> If the UK is to continue spending 0.7% of gross national income (GNI) on ODA, it will need to replace this spending currently done by the EU, details of which can be found in Department for International Development (2020).

<sup>17</sup> Degree-equivalent qualification is defined here as NVQ4 or above. Source: Annual Population Survey 2019, accessed via <https://www.nomisweb.co.uk/>.

## 6.4 Options for the Chancellor

### Day-to-day spending plans prior to COVID-19

At the March 2020 Budget, the Chancellor set out an overall spending ‘envelope’. Under these plans (and inflation forecasts at the time), day-to-day departmental budgets (resource DEL) were planned to grow in real terms at an average rate of 2.8% per year between 2020–21 and 2023–24.<sup>18</sup> A comparison with growth rates at previous Spending Reviews is provided in Figure 6.13.

However, the planned growth rate of 2.8% per year was based on inflation forecasts as at March 2020. The outlook for the economy has since changed – to put it mildly. This includes the outlook for inflation. The Office for Budget Responsibility (2020b) now expects inflation over the coming years (as measured by the GDP deflator) to be much lower than was forecast in March.<sup>19</sup> This means that the same cash spending plans would translate into a greater real-terms growth rate, because lower prices mean that the purchasing power of those cash budgets is higher. For instance, if we now expect public sector wages to grow less quickly than we did in March (because of the weaker outlook for private sector earnings), for a given level of £ spending, departments could employ a greater number of people.

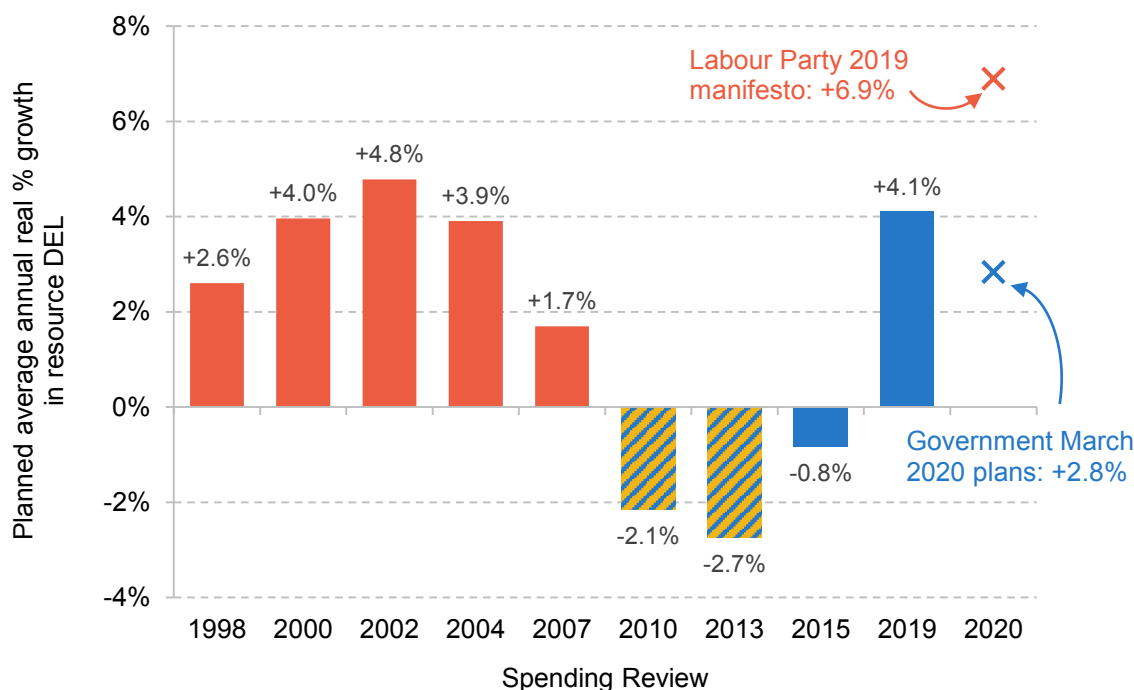
On the basis of the latest inflation forecasts, the March 2020 cash spending plans would mean average annual real-terms growth of 3.5%. Keeping to 2.8% average annual real growth under the new inflation forecast would mean £8 billion less would need to be spent in 2023–24.

Real-terms growth of 2.8% per year would have meant slower growth than the one-year increase announced in the September 2019 Spending Round (4.1%), but represented a relatively generous settlement by recent standards. Mr Sunak’s planned increases were, however, considerably less generous than those implied by

<sup>18</sup> The plans were front-loaded, with planned real-terms growth of 4.4% in the first year, 2.0% in the second and 2.1% in the third.

<sup>19</sup> The OBR’s March 2020 forecast had the GDP deflator increasing by 10.8%, cumulatively, between 2019–20 and 2024–25. Its central scenario in the July 2020 Fiscal Sustainability Report has the GDP deflator increasing by 9.2% over that period, with growth of just 0.1% in 2021–22 (versus 2.1% in the March forecast).

**Figure 6.13. Planned real-terms annual growth in resource budgets at previous Spending Reviews**



Note: Figures denote the *planned* average annual growth rate in day-to-day spending on public services (resource departmental expenditure limits excluding depreciation). Labour Spending Review 2020 figure is the average increase between 2019–20 and 2023–24 implied by the Labour Party's manifesto commitments. Figure for the government's March 2020 plans is calculated on the basis of March 2020 inflation forecasts (using July 2020 GDP deflator forecasts increases the planned growth rate to 3.5% per year). The 2.8% figure also includes spending to replace previous EU spending programmes in the UK or on the UK's behalf; removing that spending reduces the planned growth rate to 2.3%.

Source: Author's calculations using HM Treasury Spending Review documents (various), HM Treasury GDP deflators (various), HM Treasury Budget 2020, OBR March 2020 Economic and Fiscal Outlook, and Labour Party 2019 election manifesto.

the Labour manifesto (which would have resulted in average annual real-terms growth of 6.9% over the Spending Review period) and less generous than those seen under the Labour government during the mid 2000s.

What would the March 2020 plans have meant for public service funding? The published figures indicate that the post-2010 cuts to overall day-to-day spending on public services would have been reversed in real terms by 2021–22 and that by 2024–25, spending would have been 8.8% higher than in 2009–10. Spending in per-person terms was also set to increase steadily. The Office for Budget

Responsibility (2020a) noted that the March 2020 plans were set to reverse entirely the eight years of cuts to real per-person spending from 2010–11.

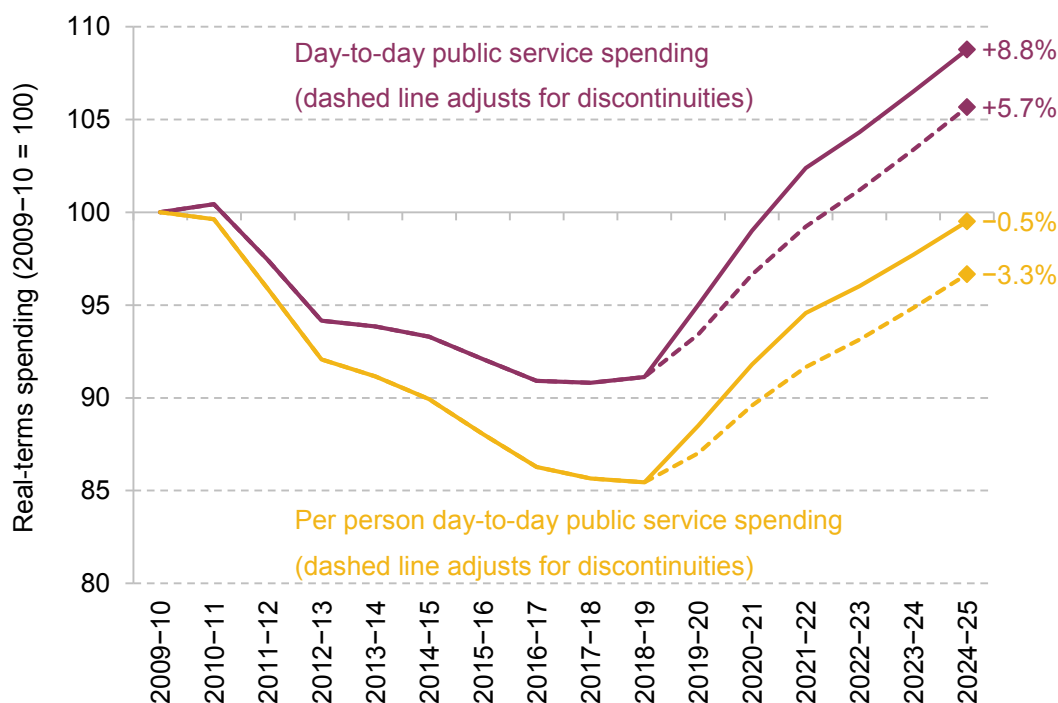
However, these raw figures slightly overstate the ‘true’ amount of funding available for public services, for two reasons. First, the figures from 2019–20 onwards are flattered by the inclusion of between £5 and £6 billion of additional RDEL relating to a fall in the discount rate used in setting employer contribution rates to public service pension schemes, announced at the 2018 Autumn Budget.<sup>20</sup>

Second, the increase in RDEL is part-funded by direct savings from EU contributions that the UK will no longer pay. In 2023–24, these amount to £11.3 billion (in cash terms). But in that year, the EU would have been expected to spend something like £7–9 billion either in the UK or on the UK’s behalf (for example, on overseas aid). We estimate that £5–6 billion of this would have been resource spending. As discussed earlier in the chapter, the Treasury has indicated that decisions over whether to replace this EU spending will be taken at the Spending Review. The government may decide to spend the money on different programmes – indeed, the ability to exert greater control over that spending is an advantage of leaving the European Union. Nonetheless, between £5 and £6 billion of spending in 2023–24 is not ‘new’ money available for public services, as it is already funding public services via the EU. Including it overstates the generosity of the March 2020 plans.

Figure 6.14 shows the path of spending before and after adjusting for these discontinuities. After adjustment, per-person spending on day-to-day public services in 2024–25 was still set to be 3.3% below its 2009–10 level. On these plans, by 2023–24 (the end of the Spending Review period), two-thirds of the cuts to per-person public service spending would have been reversed. More generally, the March 2020 spending envelope implied tight settlements outside of the government’s priority areas of the NHS, schools, the police, defence and aid. Spending increases across the board were unlikely.

<sup>20</sup> The additional £5–6 billion is equivalent to roughly 1.5% of overall RDEL, which amounted to £330 billion in 2019–20. See footnote 6 of Emmerson, Pope and Zaranko (2019) for further details.

**Figure 6.14. March 2020 plans for day-to-day public service spending, before and after adjusting for discontinuities**



Note: Dashed lines adjust for additional spending in relation to employer pension contributions from 2019-20 onwards and the estimated amount required to replace EU resource spending in the UK from 2020-21 onwards. All figures denote OBR's definition of PSCE in RDEL, adjusted for historical discontinuities.

Source: Author's calculations using OBR Economic and Fiscal Outlook (October 2018, March 2019 and March 2020), HM Treasury Budget 2020, HM Treasury European Union Finances (2018 and 2019), Department for International Development Statistics 2019, and ONS March 2020 GDP deflators.

## Options for day-to-day spending at the Spending Review

### Higher or lower?

Since March, Mr Sunak has rowed back from his commitment to the spending envelope discussed above. This opens the door to a more or less generous settlement over the next three years. There are pressures in both directions.

On the one hand, there will be upwards pressure on spending from the ongoing response to, and recovery from, COVID-19. This includes the potential need for ongoing support for businesses and public services. In addition, government and public preferences over the level of public service funding may well have changed,

given the events of this year. Even if no discretionary COVID-19 spending continues into future years, there will be pressures elsewhere (on working-age social security spending and adult social care, for example) and the economy is likely to be smaller than expected for a long period. Public spending is therefore likely to settle at a higher share of national income than it was pre-pandemic and higher than it was after 10 years of Labour government, in 2007–08.

On the other hand, there are some arguments for a *reduced* spending envelope for departments, relative to the Chancellor's March plans. Inflation is now expected to be lower, so the same rate of real-terms growth can be achieved with lower cash budgets. As a result of the COVID-19 crisis, there will be calls for the social security net to be permanently strengthened: Mr Sunak could choose to prioritise that, rather than providing additional funding for public services. And as the economy is now expected to be smaller (i.e. we as a nation now expect to be poorer), he may decide that we need to spend less on at least some public services, as part of an effort to repair the public finances.

In the next few years, the most likely outcome is probably higher, rather than lower, spending than would have been the case had COVID-19 not struck. Once a 'new normal' is reached, it less clear whether spending on public services will be higher or lower in real terms than it would otherwise have been.

### Growth rates, baselines and reserves

Ultimately, spending plans are set in terms of cash limits, but to analyse the options facing the Chancellor, it is useful to consider two key elements of the decision. The first is the planned growth rate (i.e. whether to stick with 2.8% per year, or to go higher or lower). The second is the 'baseline': the level from which those future increases are calculated. Together, they will determine the overall generosity of the cash budgets allocated to departments.

The planned real-terms growth rate is determined by the overall level of cash spending and the expected inflation rate. As discussed earlier, the economic outlook has changed since March, and inflation (as measured by the GDP deflator) is now expected to be much lower over the Spending Review period. The Chancellor therefore needs to allocate less in cash terms to achieve the same rate of real-terms growth.

In normal times, deciding on a baseline would not be a particularly trying part of the process. In a world without COVID-19, the Chancellor could simply have taken as his baseline the 2020–21 budgets published in March. Increases (for example, a 4.4% increase between 2020–21 and 2021–22, as per March plans) could then be calculated relative to that 2020–21 baseline. However, the huge amounts committed this year in response to the virus render those budgets obsolete. This has the potential to matter a great deal at the Spending Review, depending on how the Treasury chooses to treat COVID-related spending increases.

One option would be to treat COVID-related spending completely separately, financed out of a separate ‘COVID-19 Reserve’, and to provide each department with a ‘core’ settlement (where COVID-related spending is excluded from the baseline). The idea would be to allow departments to plan and deliver their core services from their allocated budget, with the ability to draw on the ‘COVID-19 Reserve’ in exceptional circumstances. This would be similar in spirit to the previous use of a ‘Special Reserve’ to finance military operations in Iraq and Afghanistan, rather than the core Ministry of Defence budget. The ‘COVID-19 Reserve’ would still need to be included in the overall spending envelope, but would give the Treasury greater flexibility and more control over the split between ‘regular’ and ‘COVID’ spending. Funding allocations could be made contingent on future events (for example, only providing extra funding to the Department for Transport *if* public transport operators are deemed to require a further bailout) and would avoid allocating large sums that turn out not to be needed. Such an approach might be well suited to exceptional and temporary spending programmes that are not expected to persist.

But some COVID-related spending *is* expected to persist into the coming financial year (and possibly beyond). The most obvious examples relate to the health budget, such as the ongoing costs of NHS Test and Trace, procurement of higher volumes of PPE for front-line workers, and spending to secure the use of private sector hospital facilities as part of an effort to address the backlog of routine operations. And the government may find it extremely difficult to reverse its ‘temporary’ increases in funding for social care, given the acute challenges faced by care homes during the crisis. If higher spending on these areas is to be permanent or semi-permanent, it would make sense to fund it out of departments’ core budgets, rather than a special ‘COVID-19 Reserve’. That would mean including some of the spending increases announced since March in those departments’ Spending Review

baseline, to reflect the fact that they are expected to continue throughout the review period.

### Illustrative scenarios

The generosity of the Spending Review envelope, and its implications for public services, will depend on both the choice of baseline and the choice of real-terms growth rate. Changes to the baseline are a useful way of thinking about the extent to which COVID-19 spending is expected to continue, and the real-terms growth rate reflects the generosity of future increases on top of that (and the expected rate of inflation). The same level of cash spending in 2023–24 could be achieved through a higher baseline and slower growth rate, or a lower baseline and higher growth rate. In this section, we lay out a number of scenarios to illustrate the choices facing the Chancellor.

As a starting point, Table 6.3 sets out the details of the Chancellor’s March 2020 plans for resource DEL over the Spending Review period. Although the Chancellor has since rowed back from these plans, they serve as a useful focal point. Under those plans, day-to-day departmental budgets were set to increase from £361 billion in 2020–21 to £418 billion by 2023–24, in cash terms. At the time, this was a real-terms increase of £32 billion over the three years; on the basis of the latest inflation forecasts (which have lower inflation than was forecast in March), the 2023–24 figure is equivalent to £400 billion in today’s prices (implying a £40 billion real-terms increase), and real-terms growth would average 3.5% over the three years.

These plans are almost certain to change in numerous respects. First, the 2020–21 baseline may need to increase (to be higher than £361 billion) to reflect the fact that some COVID-related spending needs to continue into future years. Second, both the average rate of growth, and the time profile of growth, may change.

The Chancellor may wish to spend more in the first part of the Spending Review period, to deal with COVID-related pressures, but then tighten the purse strings towards the end, to help get the public finances back on track. One way to do this would be to increase the 2020–21 baseline (against which the 2021–22 increases are calculated) but to reduce the average real-terms growth rate, so that increases are effectively front-loaded. He could even do so in such a way that the level of spending in 2023–24 remains the same as in his March plans, if he so wished. This is shown in Figure 6.15: adding £20 billion to the 2020–21 baseline and reducing the average real-terms growth rate to 1.7% would result in the same level of

spending in 2023–24 as was planned in March, but increases would be more front-loaded.

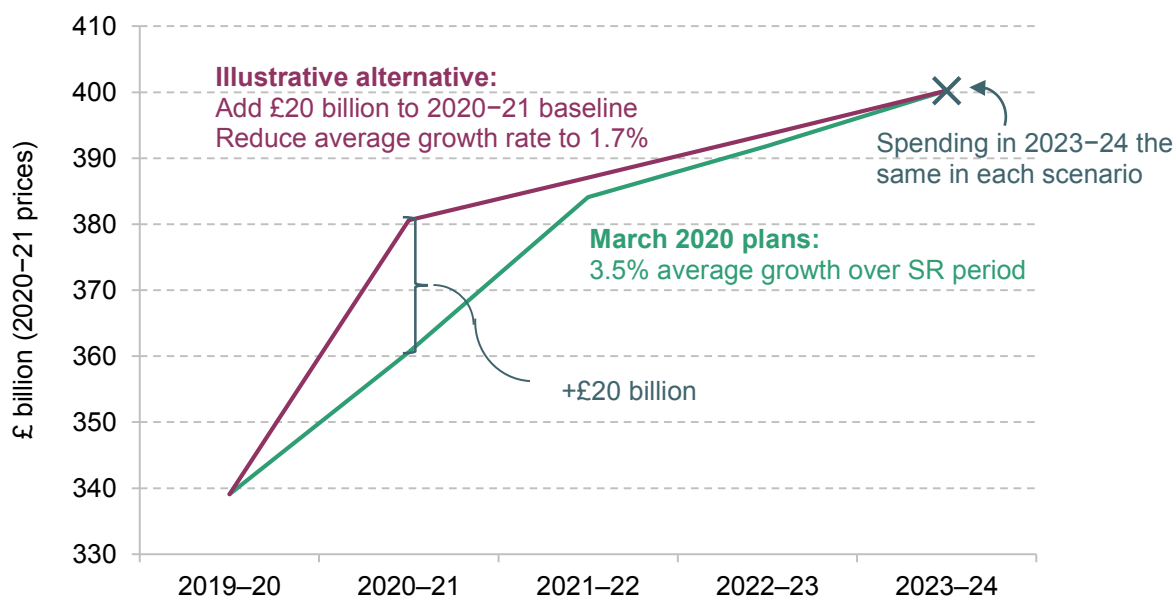
**Table 6.3. March 2020 plans for day-to-day public service spending**

	2020–21	2021–22	2022–23	2023–24
<b>March 2020 plans: resource DEL excluding depreciation</b>				
Nominal (cash) terms	£360.6bn	£384.6bn	£400.7bn	£417.6bn
Real terms (2020–21 prices, using March 2020 inflation forecasts)	£360.6bn	£376.6bn	£384.3bn	£392.3bn
Annual real-terms growth rate	-	+4.4%	+2.0%	+2.1%
Average real-terms growth rate	-	+2.8% per year		
Real terms (2020–21 prices, using July 2020 inflation forecasts)	£360.6bn	£384.1bn	£391.9bn	£400.3bn
Annual real-terms growth rate	-	+6.5%	+2.0%	+2.1%
Average real-terms growth rate	-	+3.5% per year		
Additional COVID RDEL spending	+£72.8bn	+£0.6bn	-	-
<i>of which: DHSC</i>	+£34.9bn	+£0.2bn	-	-
Additional RDEL underspends	-£5.0bn	-	-	-
March 2020 RDEL plans + additional COVID spending (2020–21 prices, using July 2020 inflation forecasts)	£428.4bn	£384.7bn	£391.9bn	£400.3bn

Note: Figures denote HM Treasury definition of resource DEL excluding depreciation. Additional RDEL underspends refer to the increase in the amount by which the OBR expects departments to underspend their resource budgets, relative to what was expected in March.

Source: Author's calculations using HM Treasury Budget 2020, supplementary expenditure table 4.4 of OBR March 2020 Economic and Fiscal Outlook, table 3.30 of OBR July 2020 Fiscal Sustainability Report, and sources for Table 6.2.

**Figure 6.15. Illustrative paths for resource DEL over Spending Review period, with spending in 2023–24 unchanged from March plans**



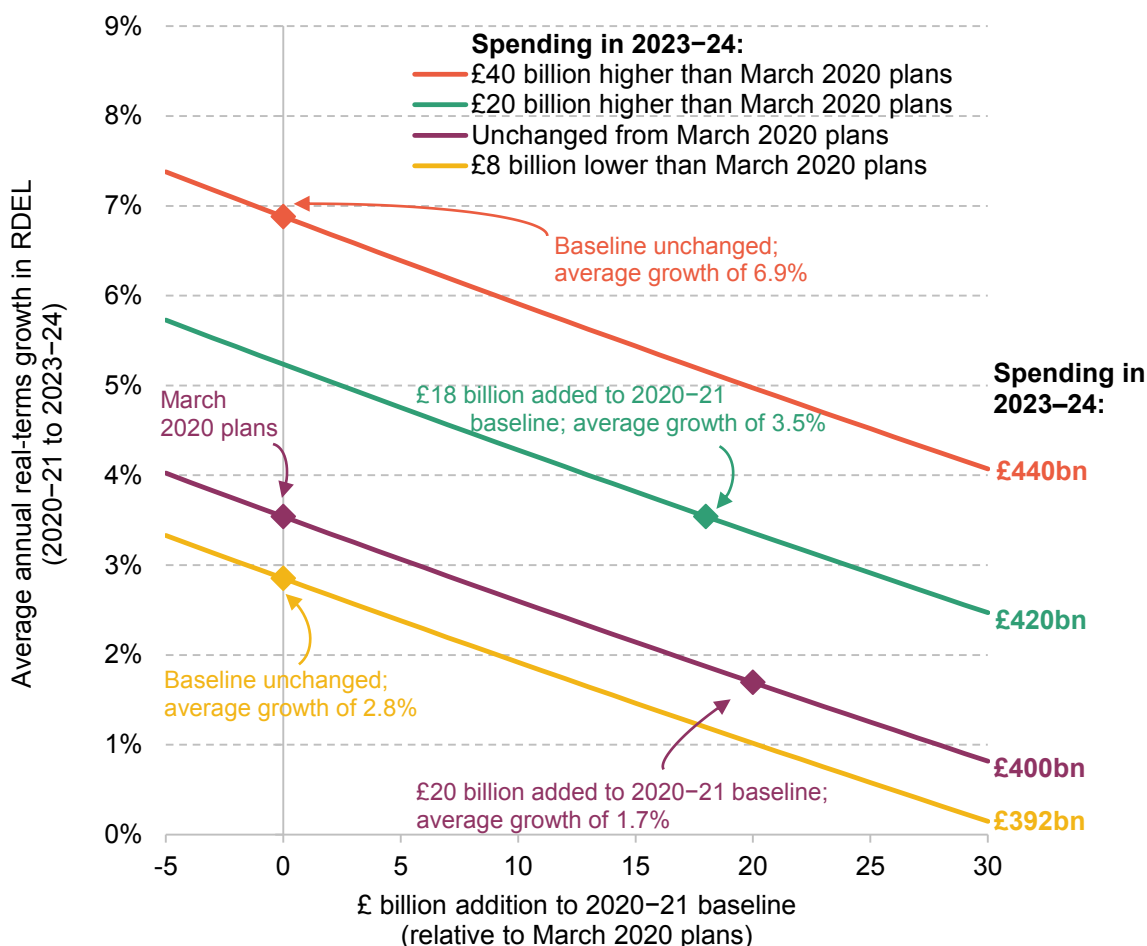
Note: Figures denote resource DEL excluding depreciation.

Source: Author's calculations using data underlying Table 6.3 and OBR July 2020 Fiscal Sustainability Report.

Figure 6.16 shows a broader range of scenarios. The purple line shows the set of increases to the baseline and real-terms growth rates consistent with real-terms RDEL spending of £418 billion in 2023–24 (i.e. the same level of day-to-day spending as in the Chancellor's March plans, equivalent to £400 billion in today's prices). It shows, for instance, that if £20 billion were added to the 2020–21 baseline (equivalent to just under 30% of the additional RDEL spending announced in response to COVID-19), and the real-terms growth rate were reduced to 1.7% per year, the 2023–24 spending envelope would remain unchanged (as in Figure 6.15). But if £25 billion were added to the baseline (around a third of the total COVID increase, and the approximate amount spent on PPE procurement and NHS Test and Trace so far), the growth rate would have to fall to 1.3% to leave the 2023–24 budget unchanged.

Figure 6.16 also shows that if the Chancellor wished to return to the 2.8% average real-terms growth originally planned for in March, and left the 2020–21 baseline unchanged, he could remove £8 billion in today's prices from the 2023–24 budget thanks to lower inflation (labelled on the yellow line).

**Figure 6.16. Combinations of baselines and growth rates consistent with different Spending Review envelopes**



Note: All £ billion figures expressed in 2020-21 prices (using July 2020 GDP deflator forecasts). March 2020 plans refer to those shown in Table 6.3, under which RDEL grows by 3.5% per year in real terms, from £360.6 billion in 2020-21 to £400.3 billion in 2023-24 (in 2020-21 prices).

Source: Author's calculations using data underlying Table 6.3 and OBR July 2020 Fiscal Sustainability Report.

On the other hand, if the Chancellor added £18 billion to the 2020-21 baseline (around 25% of the total, which would be enough for, say, £10 billion for NHS Test and Trace and an £8 billion 'COVID-19 Reserve'), and left the average real-terms growth rate at its current level of 3.5%, overall day-to-day spending would need to be £20 billion higher in 2023-24 than was planned in March (in today's prices, labelled on the green line). Leaving the baseline unchanged but increasing the planned growth rate to 6.9% per year (the growth rate implied by the Labour

Party's 2019 election manifesto) would mean adding £40 billion to plans for 2023–24 (labelled on the red line).

These scenarios are intended only to be illustrative; other combinations and other envelopes are of course possible. But the exercise serves to illustrate an important point. Even if the Chancellor were to reduce the rate of spending growth over the Spending Review period, if large chunks of the additional COVID-related spending needs to persist and be added to the baseline, the savings to the public purse (in the form of lower spending relative to March plans) could be minimal or even non-existent. In such a scenario, the winners would be departments receiving a higher baseline – most likely including the Department of Health and Social Care.

There are certainly strong arguments for top-ups to the health budget in the midst of a pandemic, and there may well be demand from the public for such top-ups in order to improve the preparedness, capacity and resilience of the NHS in advance of future pandemics. It would also follow the pattern of history. Governments of all political stripes virtually always end up topping up the NHS budget (Stoye and Zaranko, 2019). And since 2010, the NHS budget has been repeatedly protected from cuts while most other budgets have been subject to substantial cuts (Figure 6.5). As a result, the share of day-to-day public service spending going to Health increased from 26.5% in 1999–00 to 32.5% in 2009–10, 41.5% in 2019–20, and an estimated 42.2% in 2020–21. This trend looks likely to continue in the years ahead.

In the context of the Spending Review, the fate of the health budget is highly important due to its size. The Chancellor has pledged that resource DEL will increase in real terms over the Spending Review period. But this tells us very little about what lies in store for public services other than the NHS, as real-terms growth in overall RDEL could be driven by growth in the DHSC budget while other services face cuts. For example, if the 2020–21 baseline remains unchanged, overall RDEL grows by 0.1% per year in real terms and DHSC budget plans remain unchanged from March, other budgets would need to shrink by 1.9% per year over the Spending Review period. This would technically be consistent with Mr Sunak's pledge, but would mean making some extremely difficult cuts to non-health budgets, which would not seem consistent with the government's other stated ambitions.

What can we expect for those non-health budgets? Given the number of moving parts, it is impossible to say with any precision. The generosity of the overall

envelope will clearly matter, as will how much of the available funding is swallowed up by DHSC. Looking elsewhere, the government has committed to additional funding for schools and to hiring 20,000 additional police officers; we would therefore expect those areas to be prioritised (even before any COVID-related top-ups). Spending programmes related to the ‘levelling-up’ agenda are also likely to be prioritised, and departments with new post-Brexit responsibilities may receive additional resources. On top of that, the government remains committed to spending 0.7% of national income on overseas aid and at least 2% of national income on defence and national security – but with such an uncertain economic outlook, what that will mean in cash terms is far from clear. The upshot is that even with an ostensibly generous settlement, other public services – many of which have already faced sizeable cuts over the past decade – could be facing an extremely difficult Spending Review period.

### Public sector pay

An important determinant of the path for day-to-day departmental budgets over the Spending Review period will be the generosity of public sector pay awards. The starting point for the Spending Review period is public sector pay below its 2010 level and at its lowest point relative to private sector pay in decades (Figure 6.8).

On 21 July, the government announced an above-inflation pay award for around 900,000 public sector workers this year, including teachers, doctors and dentists, police officers, and members of the Armed Forces (HM Treasury, 2020d). Others, such as nurses and other NHS staff, are covered by previous multi-year pay settlements. These increases could help to address challenges with recruitment and retention, but will also put pressure on departments’ budgets.

However, the government has hinted that such increases are unlikely to continue. In his letter to Secretaries of State to launch the Spending Review, the Chancellor made clear that future public sector pay awards must reflect the wider economic context – in particular, the fact that private sector pay is expected to fall during the COVID-induced recession. He indicated that public sector pay should maintain ‘parity’ with levels of pay in the private sector in coming years.

**‘In the interest of fairness we must exercise restraint in future public sector pay awards, ensuring that across the [Spending Review] period, public sector pay levels retain parity with the private sector.’**

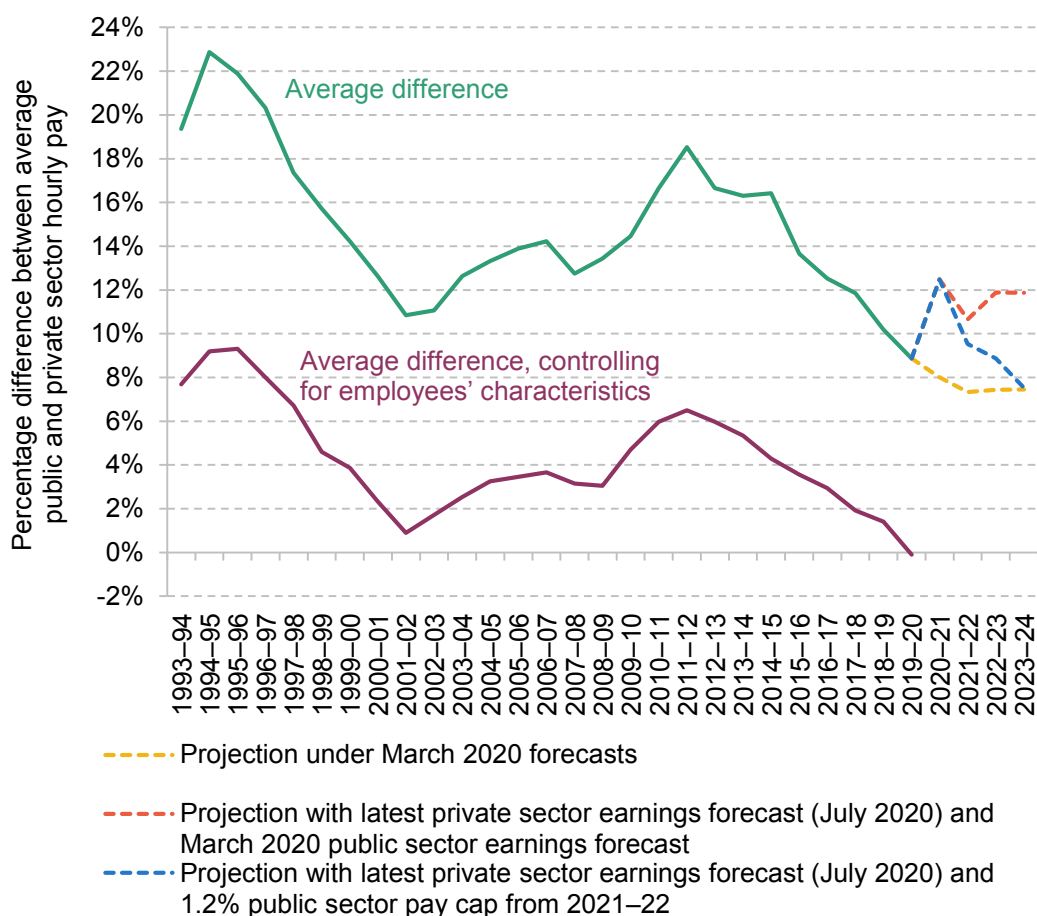
Rishi Sunak, 21 July 2020

In 2020–21, public sector earnings are likely to perform more strongly than private sector earnings – just as was the case during, and immediately after, the Great Recession. The OBR’s March 2020 forecast was for 2.9% growth in the public sector paybill per head in 2020–21, which is broadly consistent with the pay announcements of 21 July. But the central scenario in the OBR’s July 2020 Fiscal Sustainability Report implied a 0.8% *fall* in private sector earnings this year. This would reverse some of the decline in the public–private differential, and take the gap back to around its 2016–17 level (Figure 6.17). After that, a great deal depends on how pay evolves in the private sector and on the degree of pay restraint in the public sector. If private sector pay follows the path of the OBR’s July forecast and public sector pay continues to grow in line with pre-COVID (March) forecasts, the public–private differential would remain roughly flat after 2020–21 (shown by the red dashed line in Figure 6.17).

However, Mr Sunak’s language when launching the Spending Review strongly hints that a return to public sector pay restraint is on the cards. As an illustration, Figure 6.17 shows what would happen to the public–private pay differential if private sector earnings grow in line with the OBR’s July 2020 central scenario, public sector pay grows in line with pre-COVID plans in 2020–21, but pay increases are capped at 1.2% after that (the blue dashed line).<sup>21</sup> The gap between public and private sector pay would increase this year, as private sector pay performs poorly in the recession, but by 2023–24 would leave the public–private differential at the level implied by March 2020 plans. Imposing such a cap would be expected to reduce spending by approximately £10 billion in 2023–24 (relative to increasing pay in line with the pre-COVID forecast). Each 0.1% reduction

<sup>21</sup> A public sector pay cap of 1.2% would be more generous than the pay freezes of 2011–12 and 2012–13, and more generous than the 1% pay cap imposed between 2013–14 and 2016–17, but would still likely mean slower growth than in the private sector.

**Figure 6.17. Projected difference between average public and private sector pay over Spending Review period**



Note: Difference controlling for workers' characteristics controls for differences in age, education, experience and region, all interacted with sex, following the same methodology as in Cribb, Emmerson and Sibiet (2014). Since the characteristics of the future public sector workforce are not known, it is not possible to forecast for 2020-21 and beyond. Projections assume that hourly wages grow in line with the OBR's forecast for growth in average earnings. The treatment of employees put on furlough under the Coronavirus Job Retention Scheme could distort the figures for 2020-21.

Source: Author's calculations using Labour Force Survey, OBR March 2020 Economic and Fiscal Outlook and OBR July 2020 Fiscal Sustainability Report.

(increase) in the pay cap would be expected to decrease (increase) spending in 2023-24 by around £700 million relative to this amount.

If the government did return to a policy of public sector pay restraint, what might this mean for recruitment and retention in the public sector? At least in the short term, we might not be too concerned. In the midst of the sharpest recession on record, private sector jobs might be hard to come by. Concerns about pay might be

outweighed by other attractive features of public sector jobs – not least their security and stability in a recession. And some public sector jobs – for example, those in the health and social care sectors – might now be seen as more attractive, because of the well-deserved plaudits for those workers during the pandemic.

On the other hand, we might worry about the government's ability to attract people to jobs that are now perceived as more dangerous. In particular, the relative attractiveness of working in the NHS may have been diminished by the pandemic and the well-publicised shortages of personal protective equipment (Propper, Stoye and Zaranko, 2020). Brexit could also affect the ability of the NHS to recruit from abroad.<sup>22</sup> The Conservative manifesto at the 2019 election promised to deliver 50,000 more nurses. Delivering on that promise without an increase in nurses' wages could prove difficult, especially when it comes to retaining nurses who have already been trained (and attracting back those who have left the profession).

Urging public sector pay restraint is one way for Mr Sunak to keep a lid on overall spending growth, but he must also consider the government's ability to attract and retain the skilled workers needed to deliver high-quality public services.

## Capital spending

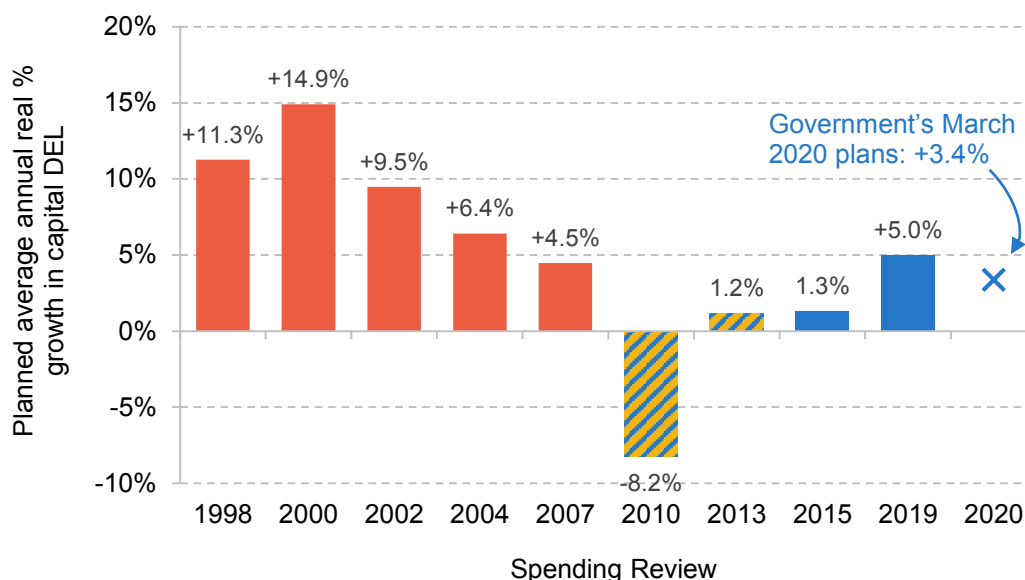
The discussion so far has focused almost entirely on day-to-day, or resource, spending. The Spending Review will also need to set departmental capital budgets. When launching the Spending Review, Mr Sunak indicated that he would set four years of capital spending plans, from 2021–22 to 2024–25. Plans published alongside the March 2020 Budget implied average real-terms growth in capital DEL of 3.4% per year from 2020–21 to the end of that horizon.<sup>23</sup> Figure 6.18 compares this with planned growth rates at previous Spending Reviews.

These plans should be seen in the context of the government's plans for investment more generally. Prior to COVID-19, the government had indicated its willingness to take advantage of historically low interest rates to borrow to invest; and the last few

<sup>22</sup> For context, 6.0% of NHS nurses are non-UK EU nationals; a further 11.9% are non-EU nationals (Baker, 2020).

<sup>23</sup> As with the government's resource spending plans, these increases were heavily front-loaded. Capital DEL was planned to grow by 9.1% in 2021–22, 3.6% in 2022–23, –0.6% in 2023–24 and 1.4% in 2024–25.

**Figure 6.18. Planned real-terms annual growth in capital budgets at previous Spending Reviews**

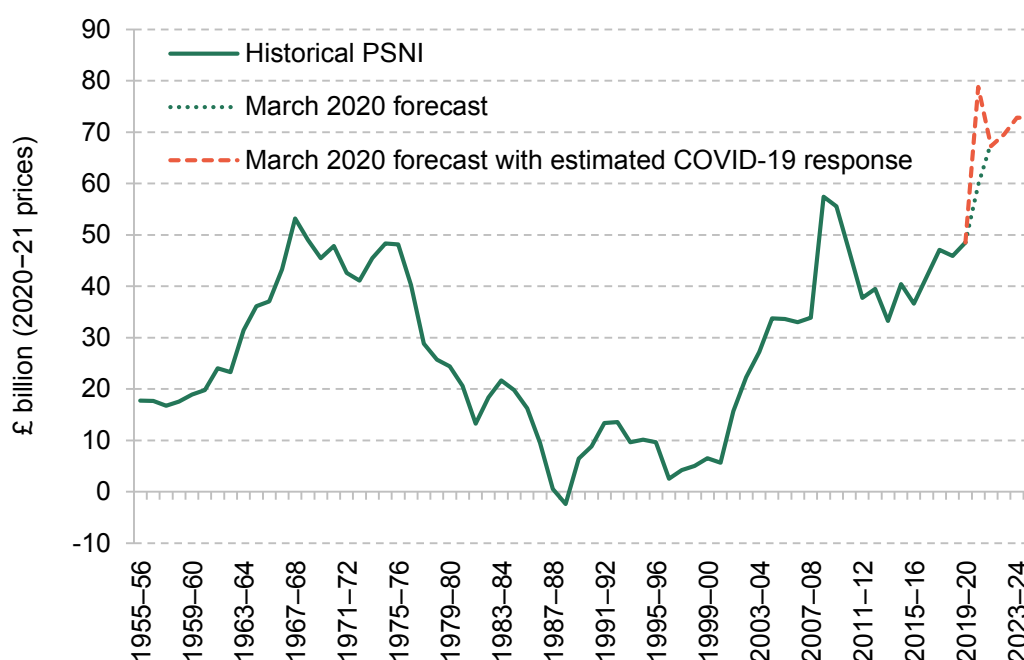


Note: Figures denote the planned average annual growth rate in capital departmental expenditure limits. Spending Review 2020 figure does not account for the OBR's assumed underspend.

Source: Author's calculations using HM Treasury Spending Review documents (various), HM Treasury GDP deflators (various), HM Treasury Budget 2020, OBR March 2020 Economic and Fiscal Outlook, and Labour Party 2019 election manifesto.

months have seen even long-run interest rates fall further (Chapter 5). The March 2020 Budget included ambitious plans for a sharp increase in public sector net investment (PSNI, a broader measure of government investment spending than capital DEL), with allocations to be determined at the Spending Review.

Since March, the government response to COVID-19 has included substantial announcements on capital spending (details of which are provided earlier in the chapter). This includes £7.1 billion of additional departmental capital spending (capital DEL) in 2020–21. However, this is largely offset by a £5 billion increase in the amount of expected departmental underspending (the OBR now expects departments to undershoot their capital budgets by around £9 billion, rather than £4 billion). As a result, capital spending by departments is in fact expected to be only around £2 billion higher in 2020–21 than was planned back in March. In addition to the modest additions for departments, the OBR expects that the fiscal cost of write-offs with respect to business loans will amount to £17 billion, which is

**Figure 6.19. Public sector net investment**

Note: Estimated COVID-19 response includes £17.0 billion of additional capital AME, as in Table 6.2, and £7.1 billion of additional capital DEL, largely offset by an additional £5 billion of underspends (as assumed by the OBR in its July 2020 Fiscal Sustainability Report).

Source: Author's calculations using OBR Public Finances Databank, OBR July 2020 Fiscal Sustainability Report, and OBR Coronavirus Policy Monitoring Database (accessed 5 August 2020).

classified as capital AME.<sup>24</sup> Overall investment spending is thus expected to be around £19 billion higher in 2020–21 than was forecast in March. This is shown in Figure 6.19, along with the historical path of public sector net investment.

The Conservative Party 2019 election manifesto pledged to keep PSNI below 3% of GDP (Conservative Party, 2019). According to the plans published in March, PSNI was set to remain (just) below this cap, and to average 2.9% of GDP over the five years from 2020–21 to 2024–25, more than twice the 1.4% average over the previous 40 years.

<sup>24</sup> Of the £17 billion, £16 billion is with respect to the Bounce Back Loan Scheme (BBLs), £0.8 billion is with respect to the Coronavirus Business Interruption Loan Scheme (CBILs) and £0.1 billion is with respect to the Coronavirus Large Business Interruption Loan Scheme (CLBILs). This is all scored to 2020–21. For further detail, see Office for Budget Responsibility (2020b).

The fallout from the coronavirus means that the economy is now expected to be smaller than was forecast in March. This means that for a given level of £ spending, the ratio of spending to GDP is higher. Consequently, the OBR's July Fiscal Sustainability Report projected that the government would breach its 3% of GDP ceiling for investment spending.

The government could decide to reduce its investment plans so as to stay within the 3% of GDP limit. This would be unwise. The combination of extremely low borrowing costs and the prospect of a deep recession means that, if anything, there is a case for *more* capital spending over the coming years. To the extent that interest rates are expected to remain low, and productive investment projects can be found and delivered, the government may in fact wish to increase its planned level of investment spending over the Spending Review period. If spent well, additional capital spending could help aid the economic recovery, improve the quality of the UK's infrastructure and contribute to the 'levelling-up' agenda. In a time of such pronounced uncertainty, however, selecting the 'right' investments – and ensuring they are well delivered – is likely to be even more difficult than normal.

## 6.5 The case for a one-year Spending Review

When launching the 2020 Spending Review in July, the Chancellor reiterated his intention to hold a full, multi-year review that would set three (four) years of resource (capital) budgets.

To an extent, this is understandable. Setting budgets for multiple years at a time can help departments to plan effectively. When making decisions over things such as staffing or projects that do not fit neatly into one financial year, public service leaders can benefit from the certainty of a multi-year budgeting process. For instance, Her Majesty's Chief Inspector of Constabulary concluded last year that for the police, 'Annual funding settlements ... are incompatible with efficient and effective long-term planning. When it comes to funding, [police] forces need certainty, stability and predictability. So there is a clear need for multi-year settlements' (Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services, 2019). Providing this certainty, stability and predictability was a key motivation for the original introduction of multi-year Spending Reviews in 1998. The government is also keen to be seen to be delivering on the promises it made in

the 2019 general election (the March 2020 Budget was titled ‘Delivering on our promises to the British people’) and so wishes to set spending plans for the remainder of the parliament.

In normal times, this is a sensible approach, and represents a strength of the UK’s system for the planning and control of public expenditure (and one that is unusual internationally). But in the current climate, given the unprecedented degree of economic uncertainty, a full, multi-year Spending Review is difficult to justify. The point of the Spending Review is to set firm spending limits. It is impossible to know what an appropriate set of spending limits would be for three years into the future. It is far from clear how much COVID-related spending will need to continue (and for how long), whether and how the government can aid the economic recovery, and what additional needs and pressures will be introduced by Brexit (whose precise form has still not been determined). In addition to this uncertainty over the amount that will be ‘needed’, the wider economic outlook remains profoundly uncertain. To take just one example: changes in the inflation forecast between March and July of this year mean that the Chancellor’s cash spending plans from his March Budget now imply average real growth of 3.5% per year in day-to-day spending, rather than 2.8% when he presented those plans in the House of Commons. Future changes to the forecast of a similar or greater magnitude are possible. And, as Chapters 2 and 4 make clear, the outlook for economic growth and future tax revenues is also subject to immense uncertainty.

The government may decide to publish three (or four) years of plans and announce its intention to revisit them in future as circumstances become clearer. But such an approach would undermine the stability and planning certainty that multi-year budgeting is intended to provide. The time and effort required to negotiate a multi-year settlement (which nobody then expects to be stuck to) would not necessarily be well spent, when there are so many priorities for the attention of civil servants, ministers and their advisors.

The Chancellor may also be tempted to promise funding increases in the short term, followed by an extremely tight settlement in later years, in order to flatter the borrowing figures at the end of the period. Mr Sunak would certainly not be the first Chancellor to take this superficially attractive route. But the sustainability of the public finances would not be improved by the publication of spending plans that the government has no intention of keeping to.

Given all of this, it would be ill advised for the government to embark on a multi-year Spending Review. Instead, it would be sensible to limit this year's Spending Review to a single year (2021–22) and to delay decisions on spending in later years until a point when some of the uncertainty over COVID-19, Brexit and the future of the economy has dissipated somewhat.<sup>25</sup>

## 6.6 Conclusion

The economic backdrop for this year's Spending Review is both highly challenging and highly uncertain. Despite the ongoing uncertainty surrounding the magnitude and duration of the economic fallout from COVID-19, and the lack of certainty over the precise form of Brexit, the Chancellor has indicated his intention to plough ahead with a full (or 'comprehensive') Spending Review, which would set out spending plans for the remainder of this parliament. He would be wise not to do so. Now is not the time to be making multi-year, multi-billion-pound spending commitments, when the future state of the economy and the future demands on public services remain so profoundly uncertain. Instead, it would make sense for this year's Review to be limited to a single year, 2021–22, with decisions over future years delayed until some of the economic fog has lifted.

Even if Mr Sunak makes the sensible decision to set only one year of spending plans, the process will be fraught with difficulty, with many delicate trade-offs. Perhaps the most important question is the extent to which the extraordinary funding increases provided in response to COVID-19 need to continue into future years. If some of these spending programmes – such as substantially increased procurement of personal protective equipment or the running costs of NHS Test and Trace – are, at least for a while, unfortunate facts of life, they could swallow up much of the increase in funding pencilled in between now and 2023–24. Whatever is left would likely be allocated to priority areas such as the NHS, schools, the police or the 'levelling-up' agenda. The Chancellor has rowed back from the spending envelope he committed to in March, but his emphasis on the need for 'tough choices' suggests that it could become less, not more, generous. Other public services could well be facing a further bout of austerity – on top of the cuts already made since 2010. That would require Mr Sunak to make some tough choices indeed.

<sup>25</sup> The Institute for Government has reached a similar conclusion. See Pope (2020).

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# 7. Levelling up: where and how?

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## Key findings

- 1 **The UK is one of the most geographically unequal countries in the developed world; compared with 26 other developed countries, it ranks near the top of the league table** on most measures of regional economic inequality. There are also substantial differences in earnings, wealth, health, educational attainment and social mobility across the country. That said, median living standards, as measured by net income after housing costs, are not so unequally distributed and on this measure London does not perform especially well. In addition, it is not a simple case of London and the South East versus the rest: the inequalities *within* regions are larger than the inequalities *between* regions.
- 2 Neither the focus on nor the rhetoric around ‘levelling up’ is new, but reducing these spatial disparities is a stated priority of this government. **The UK’s regional inequalities are deep-rooted and complex: even well-designed policies could take years or even decades to have meaningful effects.** ‘Levelling up’ will need to be a long-term, multifaceted agenda if it is to succeed where other governments have failed in the past.
- 3 There is no single set of factors that characterise a ‘left-behind’ place. In turn, this means there is no one-size-fits-all policy agenda. The challenges faced by cities such as Newcastle and Glasgow are different from those faced by towns such as

Dudley and Merthyr Tydfil, which are in turn different from those faced by coastal communities such as Margate and Blackpool.

**The government cannot be all things to all places.** It needs to decide what it is trying to achieve and how.

- 4 We combine measures of pay, employment, formal education and incapacity benefits to identify which areas might be considered ‘left behind’ and in need of ‘levelling up’. These areas can be found across the country, but **left-behind places are particularly concentrated in large towns and cities outside of London and the South East, in former industrial regions, and in coastal and isolated rural areas.**
- 5 However, layered on top of these deep-seated inequalities are the more recent economic shocks from COVID-19 and Brexit. Each will be a challenge in its own way: we find that **the traditionally ‘left-behind’ areas are *not* those most exposed to the short-term economic impact of COVID-19.** This complicates the picture with regard to ‘levelling up’, since it introduces another dimension of geographic inequality.
- 6 There are, however, important exceptions: a number of **hospitality- and tourism-dependent coastal communities** (such as Blackpool, Great Yarmouth and the Isle of Wight), and the **centres of some Northern and Scottish cities** (such as Liverpool, Glasgow and Dundee), **face the ‘double whammy’ of being both ‘left behind’ and vulnerable to the immediate economic fallout from the pandemic.**
- 7 **Brexit could make ‘levelling up’ more difficult.** While the economic impact of Brexit remains highly uncertain, the options on the table are likely to impose a particularly high economic cost on some groups, such as less-educated male workers in blue-collar jobs. Many of these are **concentrated in traditionally ‘left-behind’ areas in the North of England, South Wales and the West Midlands.**

- 8 **Currently, some sorts of public spending – transport and R&D, for example – are heavily concentrated in London and the South East. Increasing spending on these in other parts of the country might help with levelling up.** But we should not forget that ‘current’ spending – especially on things such as schools and further education – may be as, if not more, effective.
- 9 **There are at least eight existing place-based spending programmes** relevant to the ‘levelling-up’ agenda. These include the EU’s Regional Development Fund, which provides funding only until the end of this year. Rather than reinventing the wheel, the government could seek to build on these schemes, and develop a broader strategy around how they fit together.
- 10 This year’s Spending Review is a natural opportunity to set out details on these and many other areas. **The Chancellor should pay particular attention to the important role that local governments will play in ‘levelling up’** – potentially as a part of a broader devolution strategy – and ensure that this is backed up with adequate funding, both for investment and for running costs.

## 7.1 Introduction

In his first speech as Prime Minister, Boris Johnson stood outside Number 10 Downing Street and promised to ‘level up across Britain’ and ‘answer the plea of the forgotten people and the left-behind towns’. He pledged to ‘unleash the productive power’ of every corner of the country, and made clear that boosting economic performance outside of London and the South East would be a priority of his new government.

This is not the first time that spatial disparities across the UK have been high on the policy agenda. Nor are the rhetoric and language new. A Treasury report published in 2003 declared that ‘for too long, too many nations and regions of the United

Kingdom have been allowed to fall behind’ and argued that ‘real economic gain must come from a process of “levelling up” – enabling every part of the UK to develop and grow to its full potential’ (HM Treasury, 2003). Regional policies in the UK date further back still: the 1934 Special Areas Act sought to provide economic assistance to the parts of the country suffering from especially high rates of unemployment during the Great Depression. But the issue has certainly become increasingly prominent in recent years, and concerns about inequalities between different parts of the UK have very much come to the fore.

While ‘levelling up’ is clearly a priority of this government, precisely which areas are to be ‘levelled up’, and how, remains to be seen. Some of the detail is likely to come at the Spending Review (SR) later this year, a stated priority of which is to ‘level up economic opportunity across all nations and regions of the country’ (HM Treasury, 2020a). This is almost certain to translate into a commitment to greater amounts of investment in research and development (R&D), transport and other infrastructure outside of London and the South East. But inequalities between regions are deep-rooted, complex and multifaceted. They cannot be addressed through investment spending alone.

In any case, before the government makes firm decisions on the ‘how’, it needs to think carefully about the ‘where’. Is the focus to be on reviving ‘left-behind’ towns and struggling coastal communities as economically successful places in their own right? Or is the priority to boost the productivity of the UK’s large cities outside of London – which lag behind similarly sized cities in other countries – as a means of boosting their wider regions? If the government seeks to be all things to all places, it risks spreading its resources too thinly.

The fallout from COVID-19 complicates the situation. In the immediate term, some parts of the country will be hit harder by the recession induced by the public health response to the pandemic, owing primarily to differences in sectoral and skill composition across areas. Longer term, the crisis also has the potential to accelerate structural changes in the UK economy. It remains far from clear how this will pan out, and it is possible that one consequence will be a diffusion of prosperity away from extremely large urban centres such as London. But rapid structural changes – such as deindustrialisation in the 1970s and 1980s – are often accompanied by substantial economic pain that endures for a considerable time.

Brexit complicates the picture further, not least because the details of the future economic UK–EU relationship are still being negotiated, and a disorderly ‘no deal’ exit remains a possibility. The overall hit to economic prosperity from Brexit is highly uncertain, but will be greater for some industries and regions than others. Among other factors, the distribution of the costs will depend on the nature of the future relationship, the extent to which regions and industries currently rely on trade with the EU, and how easily they are able to take advantage of any new opportunities within the UK and elsewhere. Based on the current set of economic outcomes that appear possible (see Chapter 3), we can be confident that areas with significant manufacturing employment and a less-educated workforce are likely to face substantial costs from Brexit (though the ranking of which areas might be worst affected is harder to predict). In any case, it seems unavoidable that some of the areas considered ‘left behind’ will face considerable economic costs from the UK’s departure from the EU (though these should, of course, be weighed against non-economic benefits such as greater sovereignty).

In this chapter, we consider the evidence on UK regional inequalities and place them in international context. We then assess which areas might be classified as ‘left behind’ and in need of ‘levelling up’. Support for areas badly affected by the economic fallout from COVID-19 and/or by economic changes related to Brexit will also need to be incorporated into the ‘levelling-up’ agenda. We demonstrate that, for the most part, the traditionally ‘left-behind’ areas of the UK are *not* those most exposed to the short-term economic impact of COVID-19. However, a number of deprived coastal communities (such as Blackpool, Great Yarmouth and the Isle of Wight) appear to be both ‘left behind’ and particularly vulnerable to the immediate economic fallout from the pandemic, as do a number of big cities outside of London. The picture with regard to Brexit is less clear, but we ought to be concerned about the potential for the economic costs of Brexit to fall heavily on areas with less-educated workforces and greater reliance on manufacturing – many of which are traditionally ‘left-behind’ areas in the North East, West Midlands and in the so-called (former) ‘red wall’.

The economic malaise of the country’s ‘left-behind’ regions cannot be addressed overnight: the UK’s regional inequalities are entrenched, and even well-designed policies could take years, or decades, to have meaningful effects. Complex problems require complex solutions, and an effective ‘levelling-up’ agenda would need to incorporate public investment, education and training, tax reform, devolution, planning law, and a multitude of other policy tools. Such a broad

agenda would take time to design and implement. In the second half of this chapter, we consider some of the policy levers that can be pulled relatively quickly. As such, we do not seek or claim to provide the basis for a comprehensive programme for ‘levelling up’. Rather, we provide context for and analysis of some of the options available to the government in the short term, with a particular focus on public spending. We consider three areas where government action is expected (investment in transport, boosting R&D, and moving civil servants out of London), set out the details of existing place-based spending programmes, and consider a further set of issues to be addressed at this year’s Spending Review.

## 7.2 UK regional inequalities

The recent public policy focus on ‘levelling up’ reflects a widespread perception that regional inequalities in the UK are too great and need to be addressed. Regional disparities in economic performance across the UK are not a new phenomenon: as far back as 1901, GDP per person in London was 34% higher than the Great Britain average, and 7% higher in the South East of England (Geary and Stark, 2016). But the issue has unquestionably leapt up the policy agenda in recent years and promises to be a prominent feature of political and economic debates over at least the remainder of this parliament.

Recent research at IFS has examined the extent of geographical inequalities in the UK in detail (Agrawal and Phillips, 2020). It shows large gaps in productivity and earnings across the country, with mean annual earnings in London 1.3 times the UK average and 1.5 times higher than in the North East, for example. The research also shows that London is pulling ahead of the rest of the country in terms of wealth, health and educational attainment.

However, the inequalities *within* regions are larger than inequalities *between* regions. This is especially true in the South of England. Between-region inequalities in earnings and household incomes after housing costs have in fact narrowed slightly since the early 2000s. This largely reflects the fact that, after accounting for housing costs, median household income in London is not all that high (only 1% higher than the national average). The key difference between London and other parts of the UK is that London is over-represented at both the top and bottom of the income distribution: it has a great number of very high-income people, but also a large number of households living in poverty (after accounting for housing costs).

Taking a longer view, the UK appears to be considerably more regionally unbalanced now than was the case 40 or 50 years ago (at least in terms of GDP per head) (Zymek and Jones, 2020). This is a consequence of the large increases in regional inequality over the last quarter of the 20<sup>th</sup> century, driven by deindustrialisation, which have not been reversed.

Other, related work from IFS researchers has highlighted the substantial differences in social mobility between areas of England (Carneiro et al., 2020). It shows, for example, that depending on where they grew up, sons from disadvantaged families can earn (on average) up to twice as much as similar sons who grew up in the least socially mobile areas. Again, the differences within regions are often the starkest, with deprived areas with limited opportunities found adjacent to more affluent areas with greater opportunities throughout England. This is not a simple story of a North–South divide, or London versus the rest.

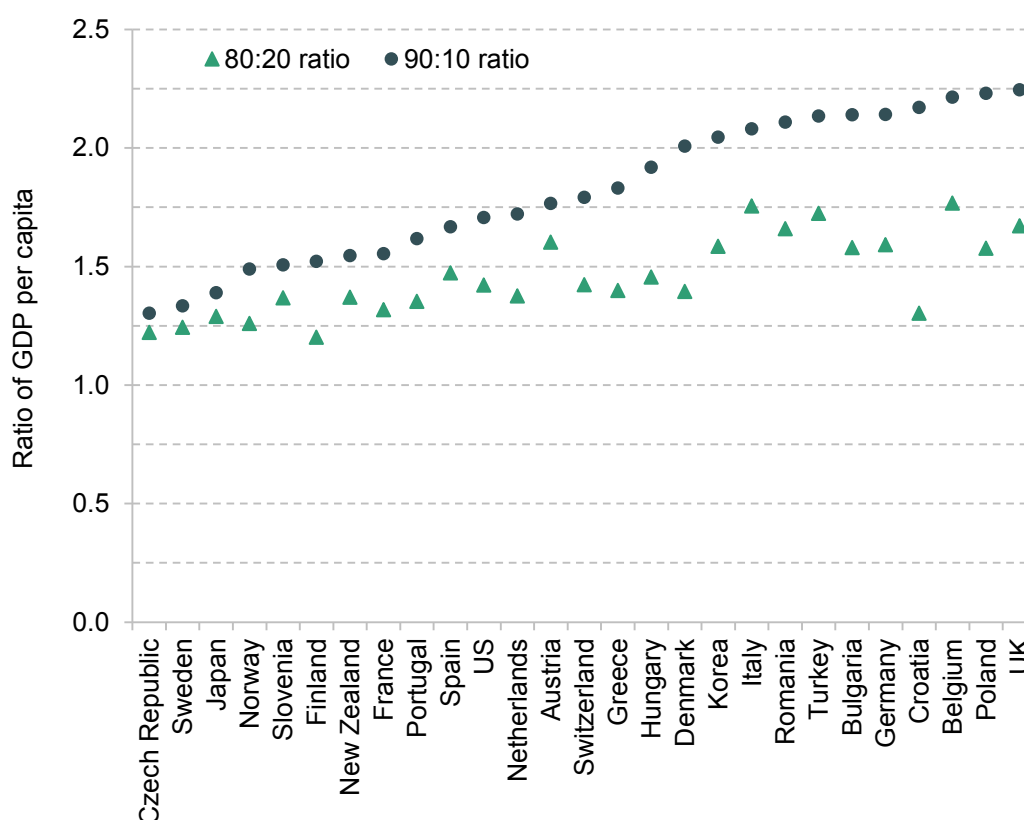
## International comparisons

To place the UK experience in context, it is useful to look at inter-regional inequalities in other countries. The UK is widely considered to be among the most geographically unequal countries in the developed world (Gal and Egeland, 2018; McCann, 2020; Carrascal-Incera et al., 2020; Zymek and Jones, 2020). On a wide variety of measures, regional disparities in the UK are greater than in most comparable countries.

To illustrate how the UK compares internationally, Figure 7.1 shows the 90:10 ratio and 80:20 ratio in regional GDP per capita for the UK and 26 other OECD countries.<sup>1</sup> GDP per capita is not a perfect or complete economic indicator, and because it is measured pre-tax and pre-transfers, it does not fully capture differences in living standards. However, it serves as a valuable measure of

<sup>1</sup> We define regions using the OECD TL3 (small region) definition. On this definition, there are 179 regions in the UK, varying in size from a population of 22,000 (Orkney Islands) to 1.2 million (Hertfordshire). More than 70% of regions have populations between 100,000 and 500,000. We use data from the OECD on regional GDP for countries with at least 10 TL3 regions. This gives a sample of 27 countries: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, Turkey, the UK and the US. Figures used are from the most recently available year for which a whole country's figures are available. In most cases, this means figures are from 2017. Note that the average size of region varies across countries: there are the same number of TL3 regions in the US as in the UK, despite a population five times the size. On the other hand, the regions are larger on average in the UK than in other countries such as Germany.

Figure 7.1. Measures of inequality in regional GDP per capita, by country



Note: Figures denote the ratio between GDP per capita in the 80<sup>th</sup> percentile ranked region and the 20<sup>th</sup> percentile ranked region (80:20), and the ratio between GDP per capita in the 90<sup>th</sup> percentile ranked region and the 10<sup>th</sup> percentile ranked region (90:10). Region defined as OECD 'small' (TL3) regions.

Source: Authors' calculations using OECD.Stat regional GDP (accessed 19 August 2020).

economic performance in a local area and as a proxy for other important economic variables (such as wages, productivity and business investment) in a manner that is internationally comparable.

Figure 7.1 shows that, in the UK, GDP per capita in the 90<sup>th</sup> percentile ranked region (Aberdeen City and Aberdeenshire) is 2.25 times higher than in the 10<sup>th</sup> percentile ranked region (Durham). This is the highest ratio (biggest difference) of all countries in the sample. On this measure, then, the UK is the most regionally unequal country that we look at. The figure also shows that GDP per capita in the UK's 80<sup>th</sup> percentile region (York) is 1.67 times higher than in the 20<sup>th</sup> percentile region (Breckland and South Norfolk). Only in Belgium, Italy and Turkey is the 80:20 ratio higher.

**Table 7.1. International comparison of regional inequality**

<b>Country (27 in total<sup>a</sup>)</b>	<b>80:20 ratio rank</b>	<b>90:10 ratio rank</b>	<b>Max:min ratio rank</b>	<b>Coefficient of variation rank</b>	<b>Overall rank</b>
UK	4	1	1	1	<b>1</b>
Germany	7	5	2	3	<b>2</b>
France	21	20	3	6	<b>8</b>
US	14	17	4	18	<b>11</b>
Italy	2	9	12	16	<b>12</b>
Netherlands	17	16	11	17	<b>16</b>
Spain	11	18	24	23	<b>20</b>
Sweden	25	26	25	26	<b>26</b>

<sup>a</sup> Table 7A.1 in the online appendix shows the ranks for all 27 countries.

Note: Ranks are out of 27. A rank of 1 would indicate the highest level of inequality and a rank of 27 would indicate the least. Overall rank is calculated as the rank of each country's mean ranking across all six of our measures of regional inequality in GDP per capita (the four shown in the table, along with the ratio of the maximum region to the median region, and the ratio of the maximum to the mean region).

Source: Authors' calculations using OECD.Stat regional GDP (accessed 19 August 2020).

The 90:10 and 80:20 ratios are useful indicators, but there are many other ways to capture and measure inter-regional inequality. We therefore use a similar methodology to McCann (2020) and construct three further measures of the differences between regions with high and low GDP per capita within a country,<sup>2</sup> and a measure of the overall spread of GDP per capita.<sup>3</sup> This gives six different measures of regional inequality for each country.

<sup>2</sup> As well as the ratios between the 90<sup>th</sup> and 10<sup>th</sup> percentile ranked regions, and between the 80<sup>th</sup> and 20<sup>th</sup> percentile ranked regions, we construct the ratios between the GDP of the maximum region and that of the mean, median and minimum regions. These capture the extent of inequalities at the very top of the distribution.

<sup>3</sup> We use the coefficient of variation, which is the standard deviation of GDP per capita across regions divided by the mean GDP per capita.

We then rank each country by these measures, with a higher rank indicating a greater degree of inter-regional inequality (so that the country ranked number 1 is the most unequal on that measure). Table 7.1 shows the ranks for the UK and a selection of other countries on four of these measures.

Although different measures of regional inequality give slightly different rankings across our 27 countries, the UK is consistently among the most unequal of these countries. In particular, inter-regional inequality consistently appears higher in the UK than in the US (where inter-household inequality is usually considered very high) and generally higher than in Italy (known for its stark North–South divide). Sweden, known for being relatively egalitarian, has generally very low ranks (i.e. a lesser degree of inter-regional inequality).

In the final column of the table, we show each country’s ‘overall rank’, i.e. the rank of their average rank across all six measures. On this measure, the UK is the most geographically unequal of the 27 countries included in our sample, and ranks considerably higher than other Western European countries such as France, Spain and the Netherlands.<sup>4</sup> Germany is in second place, with high inter-regional inequality there driven by continuing differences between the former East Germany and the rest of the country.

## 7.3 Which areas need ‘levelling up’?

### Defining ‘left-behind’ areas of the UK

If the government is to design an effective ‘levelling-up’ agenda aimed at reducing regional inequalities, knowing which areas such an agenda should target will be key. However, it is not entirely clear how to identify areas in need of support.

<sup>4</sup> It has been highlighted that the appearance of high regional inequality in the UK in data such as these could be driven by the existence of Camden & City of London as a TL3 region (see McCann (2020) for a discussion). Whilst it is true that this region does have GDP per capita many times the national average, this is a common feature in several other countries (albeit not to the same magnitude). This will affect measures using the maximum value, but does not significantly affect measures such as the 80:20 ratio, where the UK also exhibits very high inter-regional inequality. For robustness, we repeated all of our analysis excluding Camden & City of London and the other UK TL3 region with exceptionally high GDP per capita (Westminster). This still leaves the UK with the second-highest average rank, behind Germany.

The concept of ‘left-behind’ towns, cities and regions has become especially prevalent in political discourse in recent months. The Conservative Party manifesto at the 2019 general election included a promise to ‘listen to the people who have felt left behind’ (Conservative Party, 2019). This was followed by a promise in the March 2020 Budget of ‘an ambitious programme of investment in communities across the country, many of whom feel left behind’ (HM Treasury, 2020b, para. 1.51) and a speech from the Prime Minister on 30 June which argued that ‘too many parts of this country have felt left behind’ (Johnson, 2020). Yet areas thought of as being ‘left behind’ vary greatly, ranging from large cities such as Sheffield and parts of Glasgow, to mid-sized towns such as Burnley and Merthyr Tydfil, and extending to smaller, often coastal places such as Blyth in the North East, Clacton-on-Sea in Essex, Margate in Kent or Workington, home of the eponymous ‘Workington man’, in Cumbria.

While these areas differ in many respects, there are several factors indicative of an area that has fallen behind the rest of the country. We explore some of these to shed light on regional inequality in the UK and to give a sense of which areas might be high up on the ‘levelling-up’ agenda.

A ‘left-behind’ area, in need of ‘levelling up’, is characterised by broad economic underperformance, which manifests itself in low pay and employment, leading to lower living standards in that area. Behind these factors lie other considerations such as poor productivity, which in turn may be associated with a low skill base. The health of the population may also be relatively poor: in some cases, this could be a legacy of deindustrialisation or long-term unemployment, as well as deep-rooted socio-economic issues.

Clearly, no single economic indicator is able to capture every aspect of inequality between places or of being ‘left behind’. In this analysis, we combine indicators on four important dimensions: employment rates, pay, health and formal education. We analyse data for each lower-tier local authority (LA) in Great Britain (these

Table 7.2. Components of illustrative left-behind index

Measure	Employment	Formal education	Incapacity benefits	Pay
Details	% of working-age population in employment	% with a degree or equivalent	% of working-age population receiving ESA or equivalent in universal credit	Median all employees weekly pay (£, 2018 prices)
Mean	77.1%	39.4%	5.5%	£483
Median	77.5%	38.4%	5.1%	£468
Coefficient of variation	0.07	0.28	0.38	0.14
Top five	Torridge (90.9%) Adur (90.4%) Eden (89.2%) Hart (89.0%) Dartford (88.8%)	Wandsworth (71.6%) Hammersmith/Fulham (70.0%) Cambridge (69.5%) Westminster (65.5%) Kensington/Chelsea (65.5%)	Blaenau Gwent (12.3%) Neath Port Talbot (11.8%) Blackpool (11.7%) Inverclyde (11.7%) Merthyr Tydfil (11.4%)	Kensington/Chelsea (£772) Richmond upon Thames (£734) Hammersmith/Fulham (£726) Wandsworth (£720) Westminster (£703)
Bottom five	Middlesbrough (62.9%) Barrow (63.3%) Nottingham (63.9%) Ceredigion (65.1%) Birmingham (65.2%)	Great Yarmouth (15.0%) Bassetlaw (16.3%) Wellingborough (17.7%) Corby (18.1%) Bolsover (19.1%)	Wokingham (2.1%) Hart (2.3%) Uttlesford (2.3%) Windsor/Maidenhead (2.4%) South Bucks (2.4%)	Melton (£359) North Devon (£374) Great Yarmouth (£374) Blackpool (£379) Craven (£379)

Note: For full details of measures and data sources, see the online appendix to this chapter. Figures are for England, Wales and Scotland only.

include London and metropolitan boroughs, unitary authorities, and district councils).<sup>5</sup> These measures are detailed in Table 7.2.

There are several key points that emerge from this analysis:

- Skill levels vary greatly across different areas in the UK. For example, 71.6% of residents of Wandsworth have a degree compared to only 15.0% in Great Yarmouth. In general, towns in the North of England, South Wales and coastal areas have the lowest share of adults with degree-level qualifications. Outside of London, other big cities in the UK also have fairly low shares of residents with degrees. This perhaps contributes to the general finding that in the UK, unlike other countries, ‘second-tier’ cities are not particularly productive (OECD, 2020; Carrascal-Incera et al., 2020).
- The proportion of the working-age population receiving an incapacity benefit (i.e. employment and support allowance (ESA) or its successor benefits in universal credit),<sup>6</sup> which we are using as a measure of the health of the workforce, is highly variable across Great Britain. These rates of receipt are as much as six times higher in some areas than others. In general, receipt of an incapacity benefit appears to be much higher in former mining areas in South Wales, the North East and South Yorkshire, as well as around Greater Manchester, Merseyside and Glasgow. It is much lower in the South East, particularly the ring around London.
- In contrast, employment is much less variable, although even here there are some stark differences: 91% of working-age adults in Torrington (in North Devon) are employed, compared with 63% in Middlesbrough. Low employment rates are predominantly found in urban areas across Britain,

<sup>5</sup> We use lower-tier local authorities (of which there are 371 in Great Britain) as our unit of geographical analysis for three primary reasons. First, upper-tier authorities contain areas that can be very diverse economically, whereas in many cases lower-tier LAs represent just a single town or rural region. Second, much regional economic policy is done along the lines of lower-tier LAs or groupings of such LAs. Third, excellent data availability on the lower-tier LA level allows for more detailed analysis than would be the case for many other units of geography. We exclude the City of London and the Isles of Scilly for data reasons, leaving a final sample of 369. We exclude Northern Ireland as data on skills, pay and employment rates are not available on a local authority level, but we consider the economic characteristics of Northern Ireland as a whole in the next subsection.

<sup>6</sup> ESA is available for individuals below the state pension age with a health condition or disability that affects their ability to work. As such, it serves as a proxy for the health of the working-age population in each local area. To account for the gradual roll-out of universal credit (UC), we add numbers who still receive traditional ESA to numbers claiming the ESA-equivalent component of UC for each area.

particularly in parts of London, Manchester and other parts of Northern England. Rural areas of Wales and Scotland also have relatively low employment rates.

- The scale of differences in pay lies somewhere between those in employment and those in formal education. Median weekly full-time pay in the highest-paid area (Kensington & Chelsea, £772) is just over twice as high as in the lowest-paid area (Melton, £359).<sup>7</sup> Most areas have median pay between £400 and £600 per week. Pay is highest in London and the South East of England, and is notably low in rural areas of the South West and North of England, Wales and Scotland. Of course, this measure of pay is before taxes, transfers and housing costs, so it is related to – but not the same as – living standards.

Each of these measures has a different geographic pattern across Britain, but some clear trends emerge. Unsurprisingly, London and the South East of England generally perform well on all measures, with the exception of low employment rates in London. Towns in the North of England and Wales perform less well on most measures. To combine the information from each of these sources into a single measure, we construct an index, with higher values of the index indicating that an area is more ‘left behind’.<sup>8</sup>

Clearly, there are other factors – both economic and otherwise – such as productivity, quality of housing, rates of crime and children’s outcomes, that may also be relevant to identifying ‘left-behind’ areas. However, these are likely to be correlated with the measures we are using. In any case, far from providing a definitive answer, our ‘left-behind’ index is intended only to provide an indication of the areas the government might consider as in need of ‘levelling up’. A sense

<sup>7</sup> Note that pay figures are for all employees (part-time and full-time) in 2018, in nominal (cash) terms. We have also looked at mean weekly pay. Mean weekly pay is slightly more variable than median weekly pay and is generally higher. In general, the places with the highest mean weekly pay are the same as those with the highest median weekly pay, and the same is true for places with the lowest pay, although there are some exceptions in more rural areas where pay is more dispersed.

<sup>8</sup> Specifically, we construct Anderson indices; see Anderson (2008) for details of the methodology. The code to create these indices is based on a program written by Cyrus Samii (<https://cyrussamii.com/?p=2656>). The aim of the index is to combine the information from the different measures, whilst putting a higher weight on new information by giving a lower weight to variables that are correlated with one another. Our index is robust to the choice of methodology; for example, the correlation between our main Anderson index and an analogous index constructed via factor analysis is 0.908.

check of our measure, in which we examine its correlation with English indices of deprivation,<sup>9</sup> is provided in the online appendix to this chapter.

### Which parts of the country are ‘left behind’ on this measure?

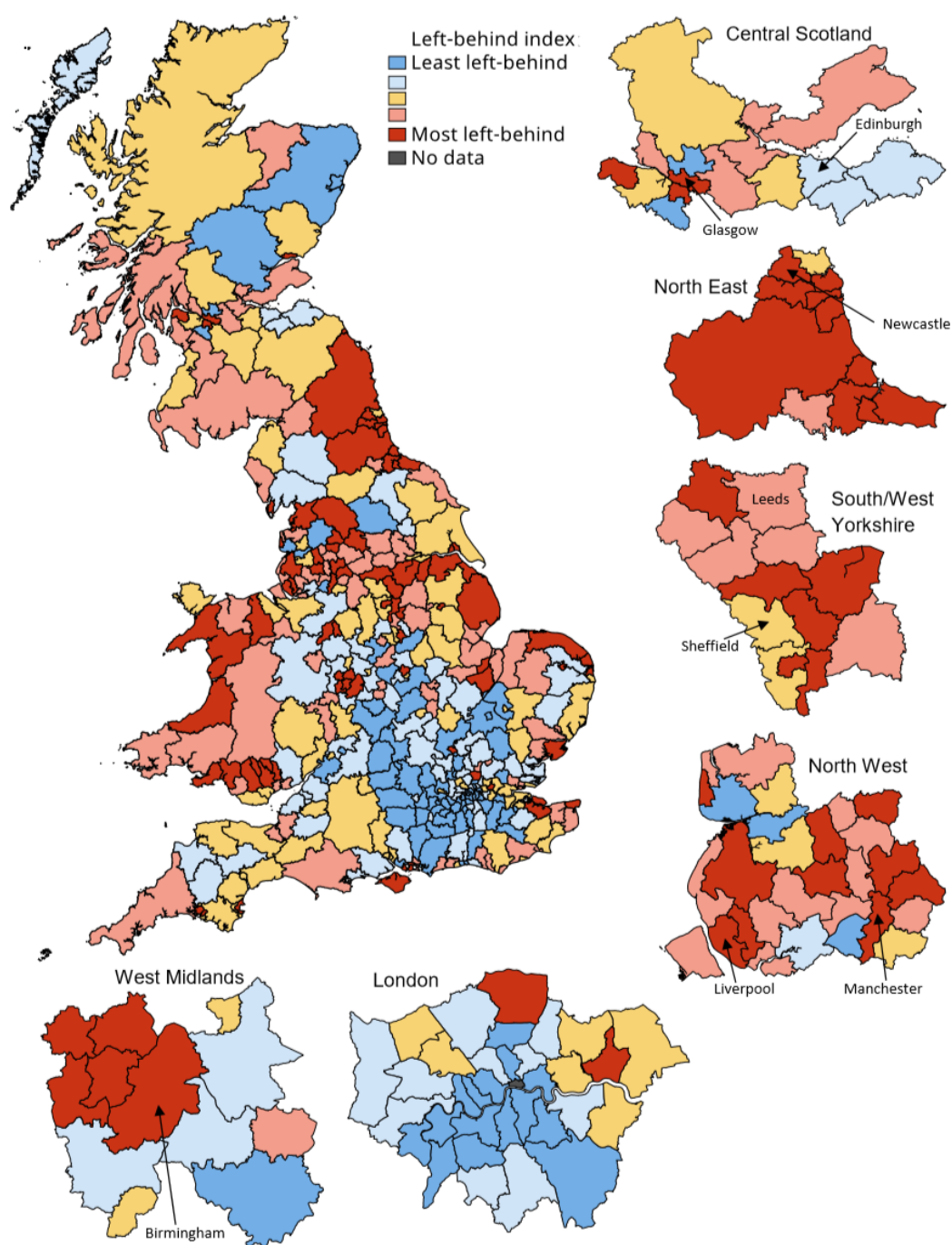
Figure 7.2 shows which areas of Great Britain our index identifies as being more ‘left behind’ and so in need of ‘levelling up’. Areas that perform worst across the four measures outlined above (employment, skills, health and pay) are shaded darker red, with those performing best on those measures shaded darker blue.

Broadly speaking, ‘left-behind’ areas can be divided into several categories (with some overlap):

- **Large towns and some cities outside of London and the South East.** This can be seen by the concentrations of red-coloured local authorities in the North East, Yorkshire, and the North West around Liverpool and Manchester, as well as in the West Midlands. The so-called ‘red wall’ of former Labour seats that changed hands at the 2019 election (stretching from Liverpool across to Hull) can also be seen in Figure 7.2, as can the fact that many cities outside of London (such as Birmingham, Glasgow and Newcastle) are, to an extent, laggards rather than leaders.
- **Former industrial regions.** Although significantly overlapping with the previous group, there are also concentrations of ‘left-behind’ areas in the former mining and steel regions of South Wales, South Yorkshire and around County Durham, and around former textile towns in West Yorkshire and the North West. These areas may be characterised by persistent long-term unemployment, with origins in past deindustrialisation.
- **Coastal towns and regions.** Local authorities containing coastal towns such as Margate in Kent, Clacton-on-Sea in Essex, Great Yarmouth in Norfolk, Skegness in Lincolnshire, Blackpool in Lancashire and Aberystwyth in Wales all appear ‘left behind’. These areas may have largely lost their fishing industry and/or seen significant declines in tourism. They also tend to have relatively poor transport links.

<sup>9</sup> The Index of Multiple Deprivation aims to capture a number of dimensions of social and economic disadvantage at a much lower geographic level (the Lower Layer Super Output Area, LSOA). However, since these indices are not comparable across the nations of the UK, and since our focus is on geographic areas that have some administrative capacity to manage levelling-up policies (i.e. lower-tier district councils and larger), we focus on our own left-behind index.

Figure 7.2. Quintiles of illustrative left-behind index



Note: Darker red areas indicate areas classified as in the most 'left-behind' fifth, with darker blue areas in the least 'left-behind' fifth. Boundaries are for lower-tier local authorities as of April 2019.

Source: See the online appendix to this chapter for details of components of the index.

- **Isolated rural areas.** In the most and second-most ‘left-behind’ fifth of local authorities (shown in pale red in Figure 7.2), there are a number of relatively isolated rural areas including large parts of Wales, rural Scotland and Cornwall.

Not all of these data are available for smaller areas within Northern Ireland, but related data do exist for Northern Ireland as a whole. On many dimensions, Northern Ireland comes out performing worse than the UK average. For example, the employment rate in Northern Ireland is 71.5% among those aged 16–64 compared with 76.7% in the rest of the UK, and the proportion of the population with no qualifications is 13.6% against an average of 7.7% for the rest of the UK.<sup>10</sup> In addition, 6 out of the 11 sub-regions of Northern Ireland are in the bottom 25% of UK regions in terms of their GDP per capita.<sup>11</sup> Therefore, we are confident that much of Northern Ireland would appear ‘left behind’ on the measures we have used.

## 7.4 What impact could COVID-19 and Brexit have on regional inequalities?

Many of the underlying factors that have led to certain parts of the UK being ‘left behind’ are long-standing. For example, a decades-long process of deindustrialisation has contributed to long-term unemployment and economic hardship in parts of Northern England and South Wales. Other contributing factors, such as patterns of migration from Northern to Southern England, have their roots even further in history (Clark and Cummins, 2018). And, as was noted earlier in the chapter, sizeable regional inequalities in the UK are not a new phenomenon, dating back at least as far as 1901 (Geary and Stark, 2016).

Looking ahead, there are two current economic shocks with the potential to have substantial and long-lasting effects on UK regional inequalities. The first of these is the economic fallout from the COVID-19 pandemic. The second is the end of the UK’s transition period with the European Union at the end of 2020. In this section, we explore how the impacts of each of these shocks may vary across the country. It

<sup>10</sup> Employment rate is for July 2020, calculated using the Labour Force Survey from the Office for National Statistics (ONS) rather than the Annual Population Survey, which is used in our left-behind index. Proportion with no qualifications is for the 2019 calendar year, calculated using the Annual Population Survey.

<sup>11</sup> This calculation uses the data and definition of ‘small regions’ underlying Table 7.1; see footnote 1.

is important to stress the uncertainty involved in such an exercise and the difficulty in precisely predicting the economic effects of Brexit and COVID-19 on different parts of the UK. Nonetheless, this analysis gives a broad sense of the sorts of places whose economies we might expect to be hit hardest by some of the more obvious impacts of each shock, and an indication of how these areas line up with those classified as ‘left behind’ earlier in the chapter.

## How might COVID-19 affect inter-regional inequality?

### The short-term economic impact of COVID-19

The outbreak of COVID-19, and the public health response to it, has caused the sharpest and deepest economic downturn in at least a century. A key question for the months and years ahead is what shape the recovery will take. At least some of the economic damage inflicted by COVID-19 is expected to last. In the central scenario in the OBR’s July 2020 Fiscal Sustainability Report, economic activity is not expected to return to its pre-crisis level until the middle of 2022, and the unemployment rate remains 1 percentage point higher than pre-crisis as late as 2025 (Office for Budget Responsibility, 2020) (other forecasts of the recovery are even less optimistic – see Chapter 2). The broader impacts of COVID-19 on the economy and public finances are discussed elsewhere in this Green Budget.

An economic dislocation of this pace and scale is certain to have substantial – and likely lasting – effects on all parts of the United Kingdom. However, there are strong reasons to think that some areas will be affected more than others (Bhattacharjee, Nguyen and Venables, 2020; Aitken and Overman, 2020; Davenport, Farquharson et al., 2020). This will be driven in large part by differences in sectoral and skill composition across regions of the UK. For instance, areas particularly reliant on tourism are likely to have been harder hit by the lockdown and continued social distancing measures. Some of the industries that have been especially affected by government restrictions and changing consumer preferences, such as aviation, are also geographically concentrated. And previous research has shown that the share of workers in occupations that could be done at home is highest in London and the South East (Costa Dias, Farquharson et al., 2020).

So far, government support – such as the Coronavirus Job Retention Scheme (CJRS) and other business support measures – has provided a substantial cushion against what the immediate impact would otherwise have been. But as these

measures unwind, many jobs will cease to exist and many businesses will fail. In the longer term, the COVID-19 crisis seems likely to accelerate structural changes in the UK economy; although it is unclear precisely how this will play out, rapid changes in the structure of the economy are often accompanied by economic pain. The rapid deindustrialisation of the 1970s and 1980s is probably the most recent time the UK economy underwent such a dramatic shift, and it is the legacy of that change that is often blamed for poor economic performance today in many of the ‘left-behind’ areas identified earlier in this chapter.

COVID-19 could have similar implications; with the sectoral structure and skill base of the UK economy varying greatly across local areas, this would likely have implications for levelling up. As the government promises to ‘build back better’ and ‘build back bolder’ (Johnson, 2020), policies aimed at recovering from the COVID-19 crisis and levelling up are likely to be intertwined.

### Which areas of the UK will be most affected economically by COVID-19?

There is significant uncertainty around what the long-term impacts of the COVID-19 crisis will be and how these may vary across the country. Much will depend on how quickly a vaccine or effective treatment for the virus is found, the degree to which the switch to home working for many office workers persists, the extent to which consumption patterns are permanently changed, and a multitude of other unpredictable factors (see Chapter 2).

However, to gain some understanding of the potential variation in the regional economic impacts of the COVID-19 crisis – at least in the short term – we use information from three measures of the impact on a local area:

- **Proportion of workers who work in sectors that were forced to close during lockdown.**<sup>12</sup> These are the jobs that were hit hardest in the short term by lockdown measures, and include workers in non-essential retail, restaurants and other leisure activities. Although many of these businesses have reopened since, they are still affected by ongoing social distancing measures and many

<sup>12</sup> Data are sourced from the ONS Business Register and Employment Survey 2018 and are based on employment location by workplace not residence. The data include both employees and the self-employed (as long as they are registered for VAT or PAYE schemes).

will have seen their balance sheets damaged. The large number of redundancies reported in these sectors suggests that, going forward, these could be sectors where job losses are focused.<sup>13</sup>

- **Proportion of eligible employees ever furloughed.**<sup>14</sup> The furlough scheme has prevented unemployment from rising as dramatically as it otherwise would have (Lenoël, Macqueen and Young, 2020). However, the furlough scheme is now being wound down and is scheduled to end in October, before which employers will have to either bring employees back or make them redundant. Many furloughed roles may no longer exist as the economy evolves in response to the crisis, and so areas that have seen a greater proportion of employees furloughed may also see larger rises in unemployment and thus greater economic damage from the pandemic going forwards.
- **Fall in job vacancies in 2020 relative to 2019.**<sup>15</sup> The large fall in job vacancies posted in 2020 relative to previous years has been widely reported.<sup>16</sup> Although many employers ceased hiring in response to the crisis, if employers base their decisions on whether to keep hiring on their expectations of how their future demand will be affected by the crisis, alongside their current situation, job vacancy changes may give an indication of which areas will be hardest hit in the coming months.

These measures are explored in more detail in Table 7.3, with several key points emerging:

- The proportion of those employed in shut-down sectors is highly variable, with areas such as the Isles of Scilly and the Lake District (which are highly reliant on tourism) having far higher proportions of workers employed in these sectors

<sup>13</sup> See job loss tracker by The Guardian for recent examples of redundancies related to the COVID-19 crisis (<https://www.theguardian.com/world/2020/jul/31/uk-coronavirus-job-losses-the-latest-data-on-redundancies-and-furloughs>).

<sup>14</sup> This is measured using HM Revenue and Customs (July 2020), Coronavirus Job Retention Scheme (CJRS) Statistics: July 2020. This gives data on the proportion of eligible workers in a local authority for whom CJRS claims were made to the end of June 2020. Just over 400,000 of around 9.4 million total CJRS claims are not attributed to a local authority. Compared with the peak number of employees furloughed at any one time, by 30 June 2020 when the data run to, the total number of furloughed employees was 77% of its peak from 8 May 2020, indicating that around two in nine workers put on furlough have now been taken off.

<sup>15</sup> The specific measure looks at the % fall in vacancies posted in each local authority in 2020 relative to 2019 over the three-month period April–June. Full details of the data can be found in Costa Dias, Norris Keiller et al. (2020).

<sup>16</sup> See IFS real-time job vacancy tracker for an up-to-date picture of changes in job vacancies (<https://www.ifs.org.uk/realtimejobvacancytracker>).

than areas such as Slough and Watford (where a greater number of office-based employees have been able to work from home). In general, it is tourism-focused coastal and rural areas, and parts of London with large hospitality sectors, which fare the worst on this measure.

- There is less variation in furlough rates across the country; even so, the furlough rate in the most-affected area (South Lakeland, with 42% of eligible employees furloughed at some point) is twice that in Boston, the least affected area. This measure overlaps to a considerable extent with the measure of shut-down sectors (as many of those workers were furloughed, at least during the lockdown). But it also captures wider effects on local labour markets from sectors that were not shut, but where demand dried up at some point during the crisis (for example, in manufacturing-focused parts of the West Midlands).
- The relative change in job vacancies from 2019 to 2020 varies massively by area. Four areas have seen an *increase* in the number of job vacancies – all in Scotland (with particularly strong growth in Inverclyde and North and South Ayrshire), but this is rare: in 98% of areas, vacancies have fallen year-on-year, and the worst-hit areas had around 80% fewer job vacancies in April–June of this year than they did a year earlier. The picture across the country on job vacancies looks very different from those on furlough and on being employed in shut-down sectors, with the worst-hit areas focused across the East and West Midlands, in Manchester and Bristol, and to a slightly lesser extent in South Yorkshire. London and the South East, and parts of the East of England, look to be less severely hit on this measure.

### Note to Table 7.3

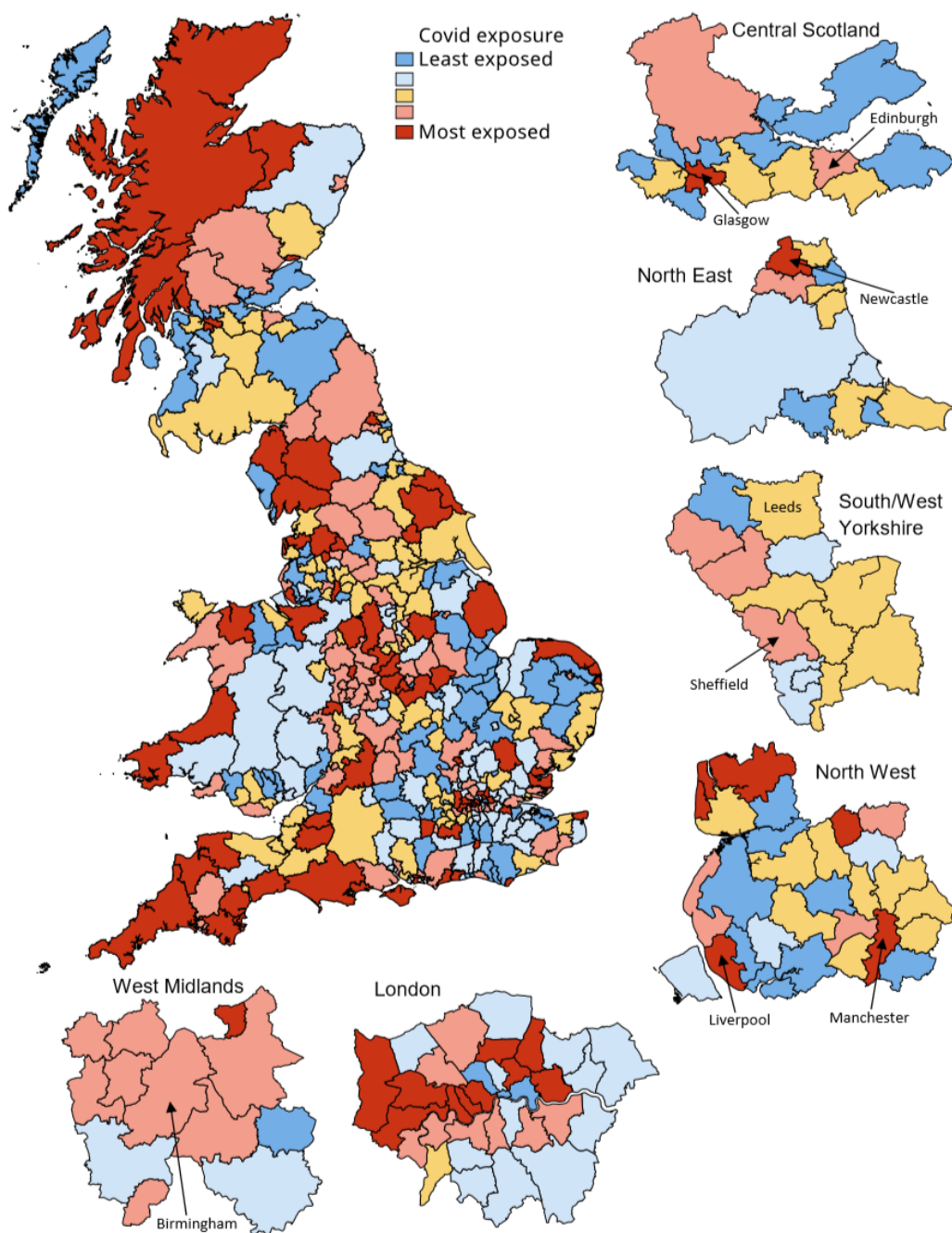
For full details of measures and data sources, see the online appendix to this chapter. Figures are for England, Wales and Scotland only. Shut-down sectors and job vacancy measures are workplace based, furloughed workers are residence based. Furloughed data for some local authorities are available for a grouping of LAs; in these cases, we give each LA in the grouping the grouping furlough rate (Cornwall/Isles of Scilly, City of London/Westminster and Bucks unitary authority). For the % change in job vacancies, three areas with very few vacancies (Orkney Islands, Shetland Islands and Scottish Islands) are excluded from the table due to the small sample size (which makes calculating % changes unstable), and these areas are also top-coded when we construct the index of COVID's economic impacts (see footnote 17).

Table 7.3. Components of illustrative COVID-19 measure

Measure	Shut-down sectors	Furloughed workers	Job vacancy changes
Details	% of those in employment in shut-down sectors	% of employees eligible for the CJRS who were ever enrolled into it	% change in job vacancies posted April–June 2020 versus 2019
Mean	18.5%	31.4%	–50.9%
Median	17.9%	31.3%	–53.2%
Coefficient of variation	0.23	0.09	0.36
Most affected five	Kensington & Chelsea (33.9%) South Lakeland (33.9%) Hounslow (31.7%) East Lindsey (30.7%) Torbay (30.2%)	South Lakeland (42.4%) Eden (41.1%) Crawley (41.0%) Newham (39.0%) Pendle (38.4%)	North West Leicestershire (–83.9%) Hackney (–82.8%) South Derbyshire (–81.8%) Blaby (–81.3%) North Warwickshire (–80.8%)
Least affected five	Tower Hamlets (10.1%) South Cambridgeshire (10.5%) Fenland (11.0%) Ashfield (11.3%) North Warwickshire (11.3%)	Boston (21.1%) South Holland (23.8%) Barrow-in-Furness (24.4%) Cambridge (24.5%) Outer Hebrides (24.8%)	Inverclyde (+52.9%) North Ayrshire (+23.0%) East Renfrewshire (+9.3%) South Ayrshire (+7.1%) Fife (–2.5%)

Note: See previous page.

**Figure 7.3. Quintiles of illustrative index of short-term economic impact of COVID-19**



Note: Darker red areas indicate areas classified as more exposed to the short-term economic hit from COVID-19, with darker blue areas less exposed. Boundaries are for lower-tier local authorities as of April 2019.

Source: See the online appendix to this chapter for details of components of the index.

We again combine the information from each of these three measures into an index, with higher values of the index indicating an area is expected to be more severely impacted by the COVID-19 crisis.<sup>17</sup> The measures chosen here focus on the likely short-term impact on local economies in particular. As with ‘left-behind’ areas, there are clearly other factors that could influence both economic and wider impacts from COVID-19, particularly in the longer term, such as health, education levels and family structure (Davenport, Farquharson et al., 2020). Nonetheless, the three measures chosen here serve as a useful proxy for the broader short-term impacts of COVID-19, which a joined-up recovery and levelling-up agenda would need to consider.

Figure 7.3 shows which areas this index identifies as being more economically vulnerable to COVID-19, and thus which areas may require relatively more ‘levelling-up’ support to enable recovery from the crisis in the medium to long term. Red-shaded areas represent those considered likely to be worst affected, with blue-shaded areas considered less affected.

Areas that appear to be particularly economically hard hit by COVID-19 vary greatly, but can broadly be viewed in several categories:

- **Rural and coastal areas.** These areas are very dependent on the tourism and hospitality sectors for income. As such, they were likely to have been especially hard hit during the lockdown period and to have had many workers furloughed. Even if a rise in staycations provides some benefit during Summer 2020 (and potentially beyond), continued social distancing measures will still likely have an impact. These areas are concentrated in coastal areas of the South West, Wales and Norfolk, as well as rural tourist hotspots such as the Lake District, Derbyshire and parts of Scotland.
- **Hospitality-dependent cities.** Large cities in Britain appear relatively badly hit on our index, with the city centre districts of Manchester, Liverpool, Newcastle and Glasgow among the worst-affected areas. The poor performance of city centres likely reflects a reliance on retail, hospitality and some tourism.

<sup>17</sup> See footnote 8 for details of index construction. In this index, we top-code the % change in job vacancies at the 99<sup>th</sup> percentile of the distribution (this affects the vacancies measure for the Orkney Islands, Shetland Islands and Scottish Islands). These three areas had very low rates of vacancies in 2019, which makes calculating % changes unstable.

- **Large parts of London.** Although the picture in London is somewhat mixed, many London boroughs are among the worst economically hit areas in the country short-term due to COVID-19. Falls in job vacancies have been limited in London, but rates of furlough and employment in shut-down sectors are very high, particularly in West and North-East London. This likely reflects the high dependence of London on hospitality sectors serving a now largely home-working office-based workforce, and impacts on tourism.

As with ‘left-behind’ areas, there are data limitations for Northern Ireland that prevent us from including it in our composite index measuring the impact of COVID-19.<sup>18</sup> However, data on job vacancies and furlough rates are available. Across the 11 local authorities of Northern Ireland, the average fall in job vacancies posted between April and June was 58.6% versus a year earlier (compared with 50.9% for the rest of the UK). Northern Ireland therefore appears relatively hard hit on this measure, and this appears to be particularly true in the cities of Belfast and Derry/Londonderry. Rates of furlough are very similar to those in the rest of the UK.

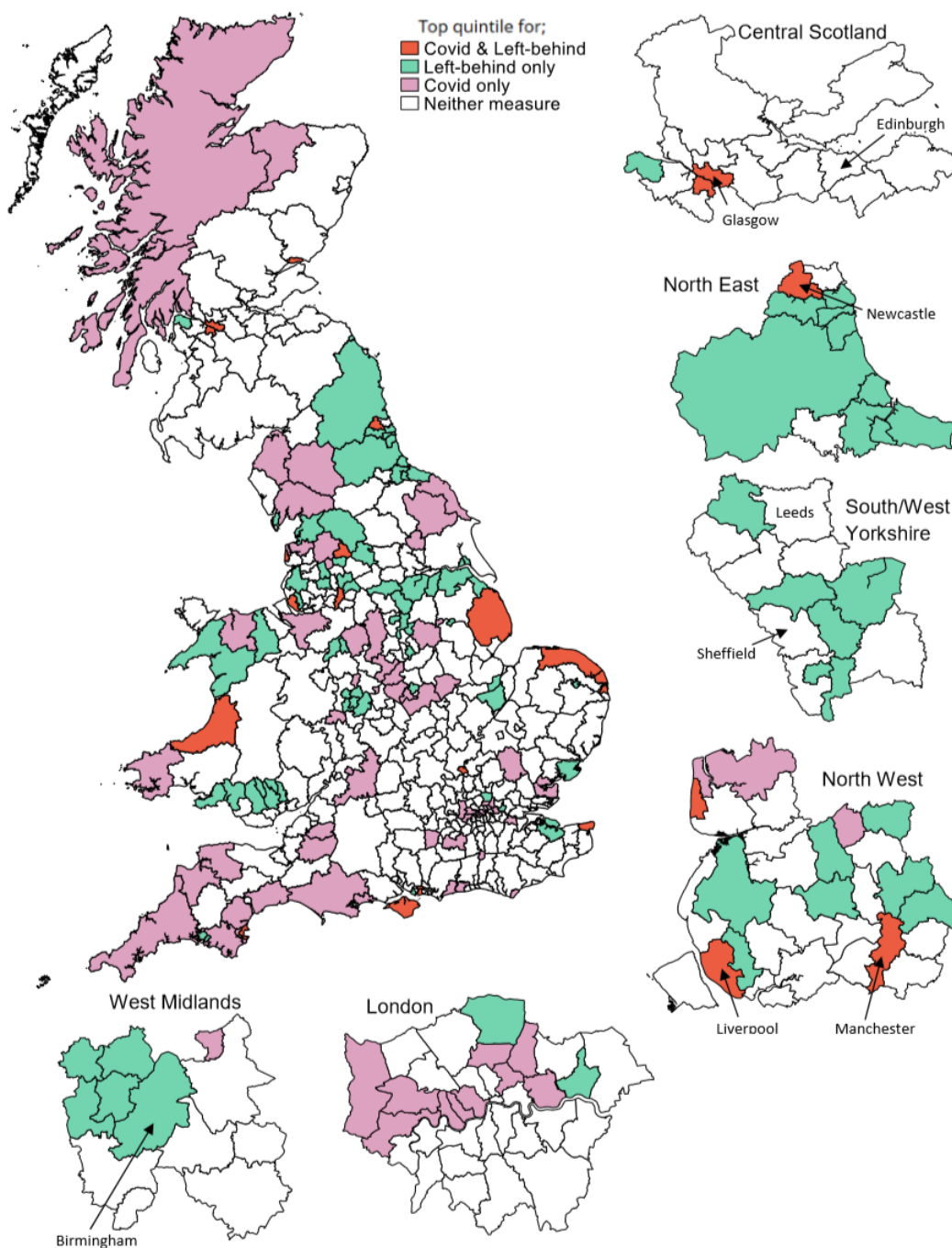
### Are the areas most affected economically by COVID-19 also ‘left behind’?

An important question for the ‘levelling-up’ agenda in the coming years is whether the areas traditionally thought of as ‘left behind’ and in need of levelling up have also been hardest hit by the economic effects of the COVID-19 pandemic.

Overall, the correlation between our index of COVID-19’s economic impact on local areas and our index of ‘left-behindness’, is very close to zero (–0.04). This suggests that whilst there are some places that appear most in need of levelling up that have also been particularly afflicted by the economic fallout from COVID-19, other apparently ‘left-behind’ areas have escaped relatively lightly. It also means that many areas hit hardest by the current COVID-19 crisis would not necessarily have been targets for any ‘levelling-up’ programme based on pre-pandemic criteria.

<sup>18</sup> Specifically, the data used to calculate the share of workers in shut-down sectors are not available for Northern Ireland.

**Figure 7.4. Areas economically impacted by the COVID-19 crisis and considered ‘left behind’**



Note: Dark red areas indicate lower-tier local authorities classified as in the top quintile (top 20%) on both the left-behind index and the COVID economic impact index. Green areas represent those in the top quintile (top 20%) on the left-behind index but not on the COVID impact index. Purple areas are in the top quintile (top 20%) on the COVID impact index but not the left-behind index. Areas shaded white are in the top quintile on neither measure.

Source: See the online appendix to this chapter for details of components of the index.

To identify more clearly whether there are some areas already ‘left behind’ that might be badly affected by the COVID-19 crisis, we combine our analysis so far and examine which areas are in the top fifth on our left-behind index, on our COVID-19 economic impact index, on both measures or on neither. This is shown in Figure 7.4. Areas identified both as being ‘left behind’ and as having local economies vulnerable to COVID are shown in red. Areas that are ‘left behind’ but not in the top fifth in terms of vulnerability to COVID’s economic impacts are shown in green. Areas that are vulnerable to COVID but are not ‘left behind’ are shown in purple. Areas in the top fifth on neither measure are shown in white.

The purple-shaded areas on Figure 7.4 show that many of the areas hit worst by the COVID-19 economic crisis are different from the most ‘left-behind’ areas on traditional measures. In particular, many of the more rural areas in the South West of England and Cumbria that may be hit badly by the short-term economic effects of the COVID-19 crisis were not struggling economically as much as other areas before the crisis.

The green-shaded areas show the other side of this coin: the areas that are quite ‘left behind’, but could escape the worst of the short-term economic hit from the pandemic. These include many areas in the North East and North West of England, the so-called ‘red wall’, South Wales and the West Midlands. This is likely due to those areas being less reliant on tourism and hospitality.

There are, however, exceptions. Some areas that were already struggling will also be among the worst-affected by the economic impacts of COVID-19. These are primarily coastal communities that are relatively deprived and highly reliant on tourism. These include Blackpool, Torbay, Thanet, Great Yarmouth, the Isle of Wight and Ceredigion. Many of these areas also have older, less healthy populations, and so may also be more susceptible on health grounds to any subsequent waves of COVID-19 (Davenport, Farquharson et al., 2020).

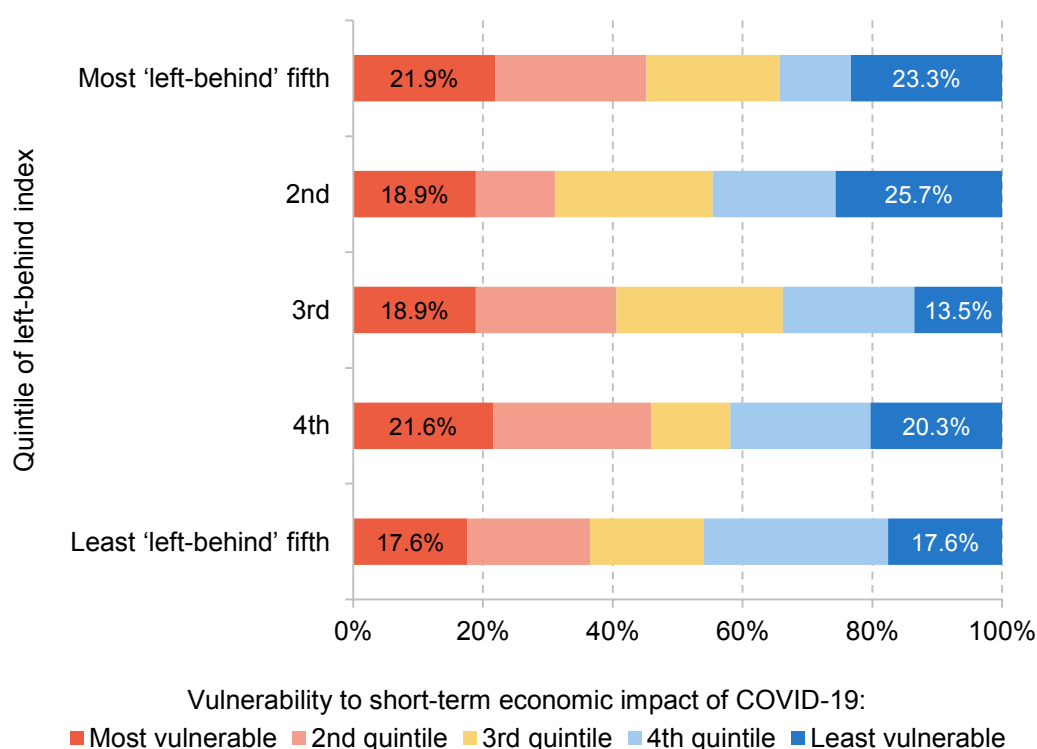
The centres of several larger cities outside of London, including Glasgow, Dundee, Liverpool, Newcastle and Manchester, also appear to be both economically vulnerable to COVID-19 and relatively ‘left behind’. This reflects the large hospitality sectors in cities, which create greater economic exposure to COVID-19, as well as the persistent deprivation that is present in many larger urban areas. A combination of deprivation and high levels of need for children’s social services also means that the long-term consequences of school closures may be more acute

in some of these areas (especially those outside of London) (Davenport, Farquharson et al., 2020).

As noted earlier, due to data limitations we are not able to include Northern Ireland in our left-behind index or in our measure of the impact of COVID-19. However, given its low employment rate and low levels of formal education, and its large fall in vacancies, it appears that at least parts of Northern Ireland may also belong to the group of areas that were already ‘left behind’ and have also been hit hard by the current crisis.

What does this mean for the levelling-up agenda? For the most part, there appears to be limited crossover between the areas most affected by the short-term economic impacts of COVID-19 and those classified as ‘left behind’. There are exceptions, including those shown in Figure 7.4, and the government should be conscious of

**Figure 7.5. Vulnerability to short-term economic impact of COVID-19, by quintile of left-behind index**



Source: Data underlying Figures 7.2 and 7.3. See the online appendix to this chapter for full details of index construction.

that fact when designing policy. But on the whole, our analysis demonstrates that the areas already struggling economically will not be the areas hit hardest by the short-term impacts of COVID-19. Just 16 (out of 369) LAs are in the top (most affected) fifth on both measures. Figure 7.5 shows that the share of LAs in the worst-hit fifth on our COVID-19 index is around 20% for each of the five groups of our left-behind index. This is in line with what we would expect if the two measures were unrelated to one another, and it provides further evidence that the effects of the pandemic bear little relationship to more traditional measures of economic disadvantage in the UK. This is likely to complicate the picture when deciding which areas to target for ‘levelling up’.

### Will Brexit complicate the situation further?

The UK formally left the European Union on 31 January 2020, but entered a transition period with the EU running to the end of 2020. Unless it is extended, this transition period will end on 31 December and the UK will enter a new trading and regulatory relationship with the European Union and any third countries where existing EU arrangements have not been replicated.

Although the details of the future economic UK–EU relationship have not been agreed, the government has repeatedly stated that the transition period will not be extended. Regardless of what agreement is or is not reached, new barriers to trade, in the form of both tariffs and non-tariff barriers, are set to be introduced at the start of 2021.

This will have different implications for different industries and regions within the UK, depending on the extent to which they rely on trade with the EU. Additionally, the UK’s departure from the EU will already have impacted on local economies through changes to business expectations and investment, and migration patterns – impacts which may persist. Brexit is therefore likely to have consequences for regional inequality going forwards and ought to be considered as part of any ‘levelling-up’ agenda.

It is beyond the scope of this chapter to provide a comprehensive assessment of the local economic impacts of Brexit and how these may alter the picture of regional inequality. In any case, changes to the precise details of any deal struck with the EU could have major impacts on such an assessment (see Chapter 3 for an indication of how these change estimates of the overall economic impacts). However, we can

draw on evidence and analysis from several existing studies to explore how Brexit might be expected to change the picture going forwards.

There is evidence that the anticipation of Brexit has already had some varying local impacts. Fetzner and Wang (2020) estimate the economic impact of the Brexit vote at the local authority level (up until the end of 2018).<sup>19</sup> They find that, in 255 of the then-382 districts of the UK, gross value added is lower than it would otherwise have been, with 168 ‘clearly’ losing out (in the sense their losses are consistent across estimation approaches) compared with only 78 that have clearly gained.<sup>20</sup> Higher output losses from the first 18 months of the Brexit process appear to be concentrated in areas with higher manufacturing employment and with a higher share of residents with low formal education. There is no clear geographical distribution of the areas classified as Brexit ‘losers’, but districts with the most negative impact are concentrated in the South East of England, the West Midlands and the North East. As an assessment of the impact of Brexit up to the end of 2018, this work makes no assumptions about the future trading relationship with the EU.

On a more forward-looking basis, Griffith, Levell and Norris Keiller (2020) estimate the exposure to the impact of a ‘hard’ World Trade Organisation (WTO)-rules Brexit on different workers. They do this by looking at the trade barriers that would be expected in this scenario, and seeing how these interact with local mixes of industries (taking into account how firms and consumers might change their behaviour in response). This gives an exposure level for workers, which tends to be higher among workers who are older, less educated, disproportionately male and in blue-collar occupations.<sup>21</sup> The authors find that, on a regional level, the proportion of workers potentially exposed is highest in the East Midlands, the North West and Scotland, and lowest in London and the South East.

However, it is important to emphasise that estimates such as these are very sensitive to assumptions made on non-tariff barriers, and specifically assumptions regarding

<sup>19</sup> The authors use a synthetic control method using annual district-level data for 382 lower-level local authorities in the UK.

<sup>20</sup> Among the 168 clear Brexit ‘losers’, the average output loss is reported at 8.54 percentage points relative to the control; and among the 78 clear ‘winners’, the average gain is reported at 6.54 percentage points.

<sup>21</sup> The authors use micro-data to estimate individual and household exposure to new trade barriers, considering a variety of factors including industry exposure, outside options, firm responses to changes in trade barriers and exposure of other family members.

barriers to services trade in sectors such as finance. For example, Dhingra, Machin and Overman (2017) make different assumptions about non-tariff barriers (with higher estimates of non-tariff barriers for services such as finance), and estimate that the effect of a ‘hard’ Brexit would in fact be highest in the South East of England, although substantial economic damage in former and current manufacturing areas such as Greater Manchester and Teesside are also predicted.<sup>22</sup>

Much of the disagreement in the literature is based on uncertainty about the eventual shape of the UK–EU relationship, and so different studies that make different assumptions come to different conclusions about which parts of the country will be worst hit. But while the relative rankings are uncertain, there is widespread agreement that certain groups of workers – particularly less-educated men working in blue-collar roles – are quite exposed to the economic consequences of Brexit (and that this is true for most of the options for a future relationship that are currently on the table). While we cannot know whether these workers and their local areas will be among the *worst* hit, we can be fairly confident that they will be considerably hit. And, since many of the areas where such workers are concentrated (especially in the North of England and South Wales) already appear to be relatively ‘left behind’, there is potential for a hard Brexit to worsen the economic situation in these areas and compound some of the difficulties of levelling up.

## 7.5 Short-term policy options

Designing and implementing a coherent policy agenda to reduce the UK’s entrenched regional inequalities, against a backdrop of Brexit and COVID-19, is to put it mildly a challenging task for the government. Policies well designed to address the economic malaise of the UK’s ‘left-behind’ regions could still take years, or even decades, to have meaningful effects. Change cannot be delivered overnight. And just as the UK’s spatial disparities are multifaceted, an effective ‘levelling-up’ agenda would need to use multiple tools, incorporating public investment, education and training, tax reform, planning law, devolution and a myriad of other policy areas. This would need to be a sustained, long-term agenda.

<sup>22</sup> This is driven by the fact that different assumptions about non-tariff barriers have a bigger impact on the finance- and services-dependent South East.

Here, we focus on options for the short term, with a particular focus on public spending. The government will be under pressure to deliver – and to be seen to deliver – results sooner rather than later, and public spending is a policy lever that can be pulled relatively quickly. It will not form the entirety of a ‘levelling-up’ programme, but it will likely form a major plank of one. The 2020 Spending Review, due to be concluded later this year, represents an opportunity for the government to provide some detail and to commit the necessary funding.<sup>23</sup> Given the emphasis placed by this government on ‘levelling up’, we can expect these plans to be subject to considerable scrutiny.

The government has already given some indication of the sorts of policies we might expect to be announced in the short term. In this section, we seek to place these in context. We first consider investment spending (and investment in transport specifically) and spending on research and development, before discussing the geographic location of civil servants and how this has changed over the past decade. We then consider the existing place-based spending programmes, such as the Towns Fund, noting that a successful ‘levelling-up’ agenda would seek to learn from and potentially build on these existing structures. Finally, we set out a number of issues and outstanding questions for the Spending Review due to be held later this year.

## Government spending on investment and R&D

### Investment spending

To date, much of the debate around ‘levelling up’ has focused on government investment. It is certainly the case that well-planned and well-executed investment in particular sectors and/or regions could help deliver productivity growth across the UK’s regions, and the government clearly expects investment to play an important role. The March 2020 Budget stated that:

**‘The only sustainable way to drive economic growth and improve living standards in every corner of the country is to boost productivity. The government is therefore investing in people and places – by taking the first steps in its plan to level**

<sup>23</sup> The broader outlook for this year’s Spending Review is discussed in more detail in Chapter 6.

**up skills across the country, ahead of setting out further details at the [Spending Review], and by committing record levels of investment to infrastructure that will directly support productivity. These actions will boost national growth as well as addressing economic and social disparities and restoring the fabric of our towns and cities.'**

HM Treasury, Budget 2020, paragraph 1.125

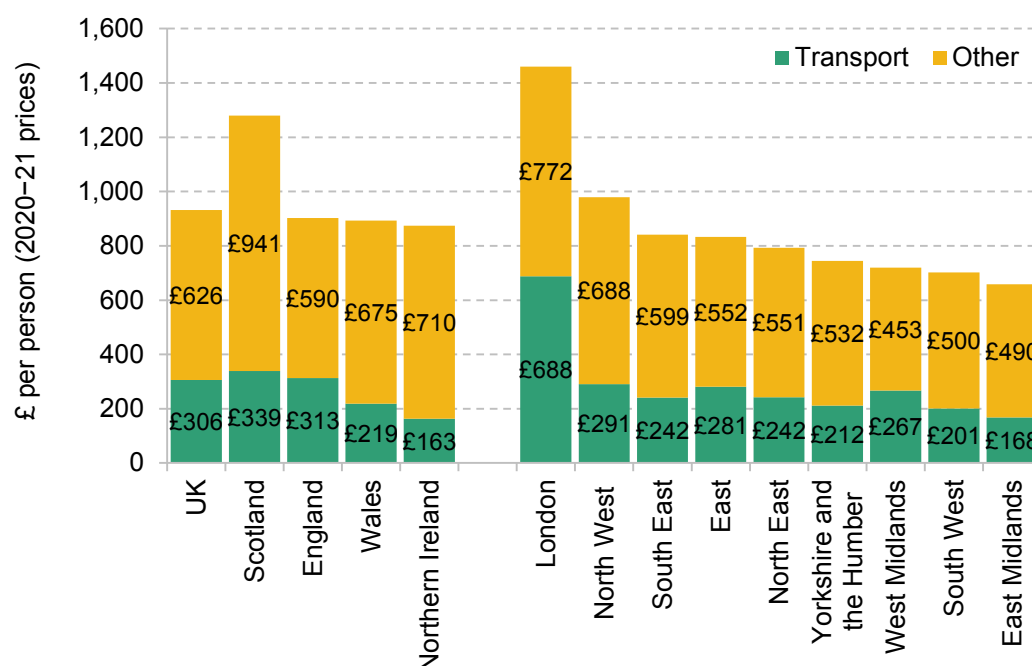
It is therefore worth considering the existing regional pattern of investment, which will form the backdrop against which any 'levelling-up' investment programme is delivered.<sup>24</sup> We also consider the regional patterns in investment in transport, which policymakers often look to as an engine to drive new regional powerhouses.

Investment spending – and particularly investment in transport – is inevitably 'lumpy', and so can vary considerably between years as projects are started and completed. We therefore examine the average level of investment spending per head across the five most recent years of data (2014–15 to 2018–19). Over this period, investment spending per person was higher in London than anywhere else in the country, as shown in Figure 7.6. Capital investment per person there averaged £1,461 a year over this five-year period (in today's prices), compared with an average of £851 in the rest of the UK, and just £658 in the East Midlands.

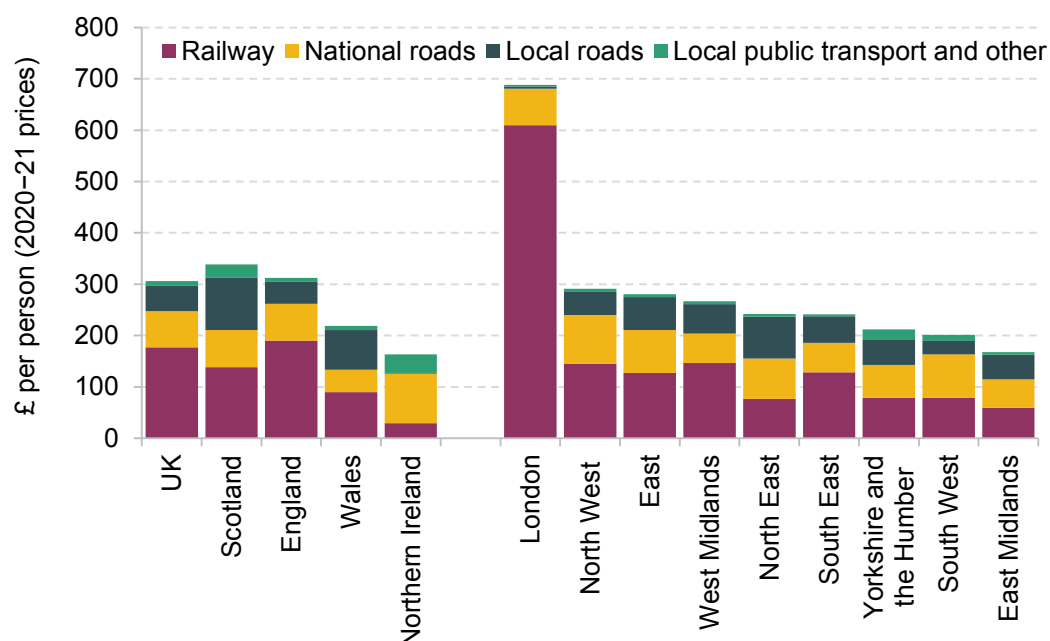
The gap between investment spending per head in London and elsewhere was driven in large part by higher investment in transport, which averaged £688 a year per head in London between 2014–15 and 2018–19, considerably higher than in any other region (and 2.8 times higher than the average of £247 a year per head in the rest of the UK). This, in turn, was driven almost entirely by spending on investment in railways in London (which in recent years includes Crossrail). Investment in railways averaged £610 a year per head in the capital, 5.5 times the £110 average for the rest of the UK (Figure 7.7). Per-person investment in local and national roads was spread more evenly across the country over this five-year period,

<sup>24</sup> For discussion and analysis of the government's overall plans for investment spending, see Chapter 6.

**Figure 7.6. Capital spending per person, by nation and region, annual average between 2014–15 and 2018–19**



**Figure 7.7. Transport investment spending per person, by category, nation and region, annual average between 2014–15 and 2018–19**



Note for Figures 7.6 and 7.7: Figures denote the average level of identifiable capital expenditure by person between 2014–15 and 2018–19 (in 2020–21 prices).

Source for Figures 7.6 and 7.7: Authors' calculations using HM Treasury's Country and Region Analysis 2019, ONS mid-year population estimates for each year and ONS June 2020 GDP deflators.

but was highest in Scotland (average of £174 per person per year) and lowest in London (£76), Northern Ireland (£98) and the East Midlands (£104).

There are number of caveats necessary to the interpretation of these figures. First, some of the higher transport spending in London is financed through locally raised taxes and fares.<sup>25</sup> Second, at least some transport spending in London will in fact benefit individuals who reside elsewhere (such as those who travel into the city for work, mainly from the wider South East). Nonetheless, it is clear that transport investment in London has been considerably and consistently higher than in other parts of the country, and that this is likely to have increased productivity differences between regions.<sup>26</sup>

What might ‘levelling up’ transport investment mean in practice? As an illustration, if the government were to take a literal approach, and raise per-person transport investment spending across the UK to the London level, it would require more than £22 billion of additional spending per year – more than doubling the existing budget. Per-person spending would need to more than treble in Yorkshire and the Humber and more than quadruple in the East Midlands.

This is absolutely not prescriptive and is merely intended to illustrate the scale of the gap between London and the rest of the country. Clearly, increases on this scale would not be sensibly achievable over a short-term or even medium-term time frame.

### Cost–benefit analysis of transport spending

It is also far from obvious that such a literal approach to equalising transport spending would be desirable: there are good reasons for transport investment to be higher in some parts of the country than others, and the appropriate mix of spending (for example, roads versus rail) will certainly differ across the country. London is a densely populated, highly productive urban area with greater demand – and willingness to pay – per head than many other parts of the UK. These factors mean

<sup>25</sup> For instance, in 2018–19, total identifiable capital expenditure on transport in London was around £5.8 billion. Transport for London capital expenditure (including Crossrail) amounted to around £3.5 billion (Transport for London, 2019a), some 60% of the total, and approximately half of Transport for London’s funding came from passenger fares (Transport for London, 2019b). Net income from the Congestion Charge (which in 2018–19 amounted to around £150 million) is also spent on transport in London.

<sup>26</sup> For a discussion of the evidence on transport investment and economic performance, see Venables, Laird and Overman (2014) and Frontier Economics (2016).

that the cost–benefit analyses used by government to judge which projects deserve funding often estimate greater financial returns to investment in London than elsewhere.

However, such an approach is not without its flaws and critics. The primary concern is that this approach can create a self-reinforcing cycle, where the rules favour investment in areas that *already have* productive jobs, dense populations and higher property prices (such as London), which then become more productive, and are then favoured for more investment, and so on.<sup>27</sup>

If the government is keen to close some of the gap in transport investment between London and elsewhere, one option would be to revise the rules governing which projects receive funding to place explicit weight on regional equity, or on the perceived social and economic advantages of more regionally balanced growth. There may also be scope to place more emphasis on the potential for certain projects to transform a regional economy and provide extensive spillover benefits.

But incorporating these dynamic effects into decision-making is much easier said than done (Atkins, Davies and Kidney Bishop, 2017). By definition, these sorts of ‘transformative’ impacts are extremely difficult to predict with certainty ahead of time. And while greater flexibility allows policymakers to take a wider view on how a project might affect a local economy, increasing the role of discretion also makes it easier for projects to be prioritised based on more political factors and for inappropriate inconsistencies in decision-making to emerge. A shift towards explicitly prioritising funding to areas and projects on criteria other than their expected economic benefits would also run the risk of earning a lower rate of return on overall transport spending (in terms of UK-wide economic growth), though potentially this return would be more evenly spread. The government has committed to a review of these rules (the ‘Green Book’), with the new rules expected to be published alongside the Spending Review later in the year. Whatever changes are made, it is important that investment decisions are made on a transparent and consistent basis.

<sup>27</sup> A detailed assessment of the Treasury’s approach to cost benefit analyses and project appraisal is beyond the scope of this chapter. For a critical review, see Coyle and Sensier (2020).

Finally, while the long-term implications of the COVID-19 pandemic are of course unknown, it seems likely that we will see changing patterns of transport use. In particular, a shift towards more home working could lead to substantial reductions in passenger numbers on public transport systems in London and other major cities. The case for further investment in those systems could well be weaker as a result. At the very least, the government ought to consider how this affects its analysis of costs and benefits, and whether the appropriate mix of transport projects could be different in a post-COVID world.

### Research and development

Another area of spending potentially important for promoting regional economic growth is research and development (Griliches, 1998; Jones, 2005). While public investment in R&D (and, relatedly, universities) can have benefits for the country as a whole (because new research and technology can have widespread applications), at least some of the benefits are concentrated in the areas where the research is carried out (Bode, 2004; Kantor and Whalley, 2014; Valero and Van Reenen, 2019; Atkinson, Muro and Whiton, 2019). This is not just because of the direct spending by universities or research institutions, or because of the high wages of their staff. It is partly because R&D can support the development of a prosperous, knowledge-based local economy and contribute to greater local productivity. It could also be because interaction between R&D workers and their communities influences the types of questions that are answered, meaning that the new knowledge is more useful to the local economy. This is likely to be particularly true for the manufacturing sector (Forth and Jones, 2020).

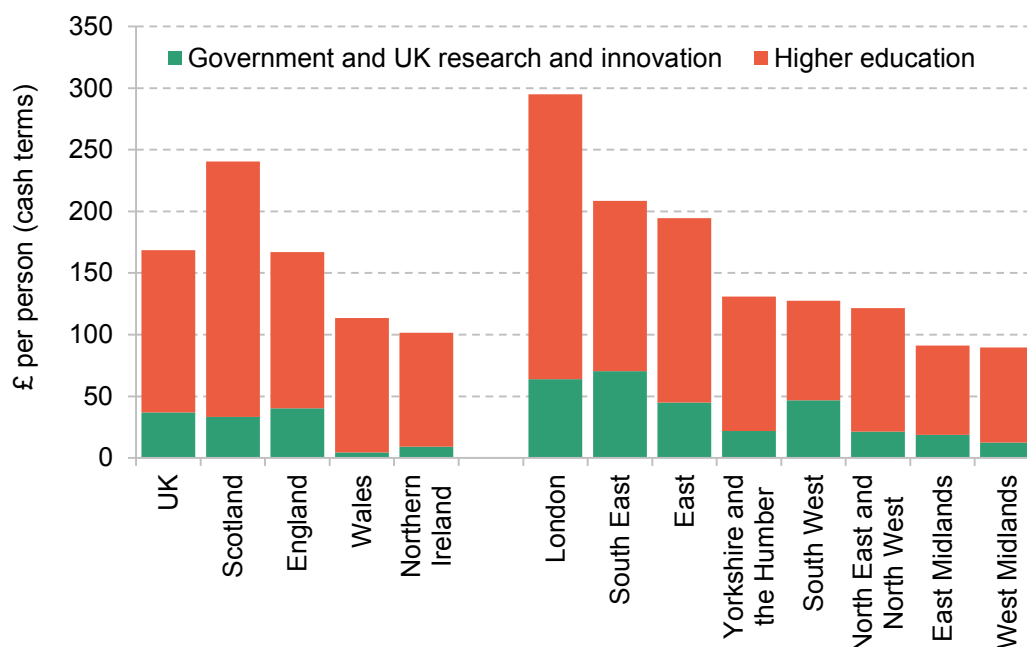
The UK government is committed to doubling public R&D investment from £11.2 billion in 2018 to £22 billion per year by 2024–25, with the objective of boosting public spending on R&D (which includes universities) to 0.8% of national income by that year, and boosting economy-wide investment in R&D (which also takes in private spending on R&D, done mostly by businesses) to 2.4% of national income by 2027 (HM Treasury, 2020).<sup>28</sup> At the Spending Review, the government has committed to providing further details on funding and to ‘examine how R&D

<sup>28</sup> For context, UK gross expenditure on R&D was 1.71% of GDP in 2018, and averaged 1.60% between 1990 and 2018 (Office for National Statistics, 2020).

funding as a whole can best be distributed across the country to help level up every region and nation of the country' (ibid.).

Currently, public sector spending on R&D is spread far from evenly across the country (Figure 7.8). If one considers R&D spending by both government<sup>29</sup> and higher education institutions, spending per head is highest in London (£295 in cash terms in 2018), Scotland (£240), the South East (£209) and the East of England (£209) and the East of England

**Figure 7.8. Government and higher education expenditure on R&D, by country and region, 2018**



Note: North West and North East England are combined by the ONS for confidentiality reasons. Government and higher education spending together make up around 30% of R&D spending in the UK, with most of the rest done by private business.

Source: Authors' calculations using ONS gross domestic expenditure on research and development by region and ONS mid-year population estimates.

<sup>29</sup> This includes research carried out at government-owned research institutes and laboratories. These are managed by departments such as the Department for Business, Energy and Industrial Strategy (BEIS), the Department for Environment, Food and Rural Affairs (Defra) and the Department of Health and Social Care (DHSC).

(£194). At £237 per head, R&D spending in London, the South East and the East of England is 1.8 times higher than the average for the rest of the UK (£129).<sup>30</sup>

The government recently published a ‘UK Research and Development Roadmap’, which included a commitment to ‘take greater account of place-based outcomes in how we make decisions on R&D in the UK, ensuring that our R&D systems make their fullest contribution to [the] levelling up agenda’ (Department for Business, Energy and Industrial Strategy, 2020). A ‘UK R&D Place Strategy’ is due to be published later this year to set out further details.

Purely for illustration, were the UK government to pursue a literal approach to ‘levelling up’ R&D and commit to raising public sector R&D spending per head across the country to the same level as in London, the South East and the East of England, this would require approximately £4.5 billion of additional spending. This could be readily accommodated within the overall increase in public R&D investment planned over the next five years or so.

But a fully equal allocation of R&D funding around the country is probably not be the best way to distribute funding. There are strong arguments for public R&D spending to be higher in areas with a greater number of research-intensive, high-quality universities, for example. Given that some R&D spending has the potential to benefit the country as a whole, one could argue that it should be invested in the places with the greatest capacity to absorb it and deliver top-end R&D. Not all places in the UK will have the same ability to do so (Forth and Jones, 2020; Enenkel, 2020). Nonetheless, the government’s commitment to place more weight on place-based outcomes when assigning R&D spending could see some of the gaps between regions narrow in coming years.

## Moving civil servants out of London

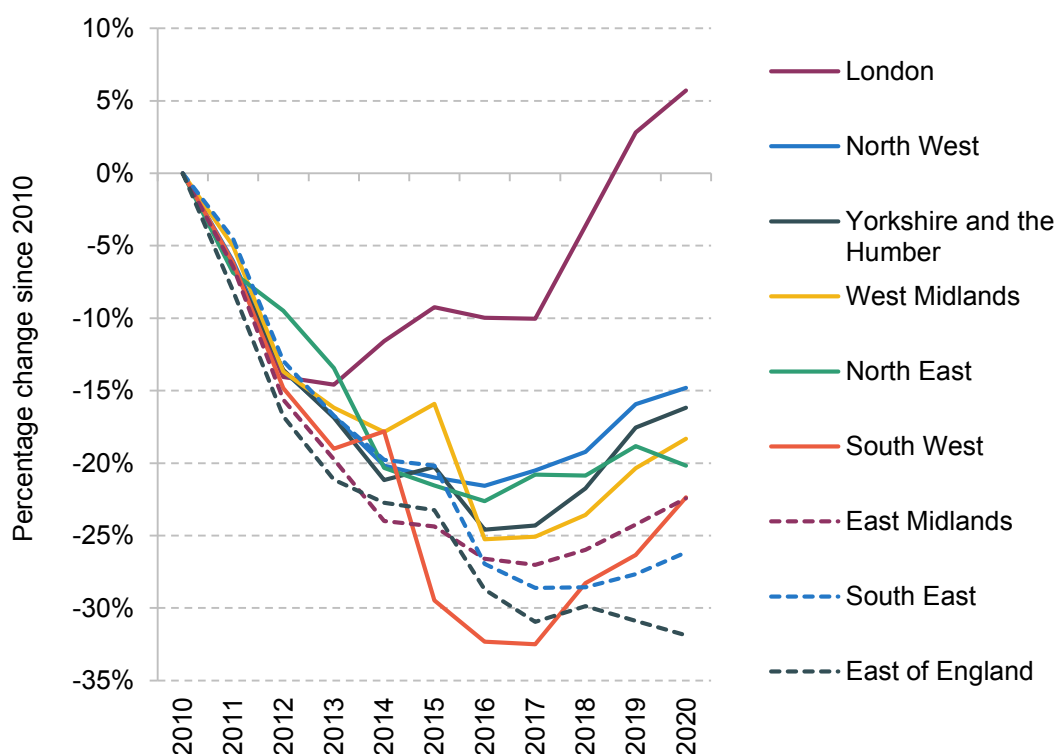
Another area of focus has been the potential for civil service jobs to be spread more evenly across the country. In his letter launching the Spending Review, the Chancellor asked each Secretary of State to develop a plan for relocating department offices and arm’s length bodies outside of London. This follows a long

<sup>30</sup> Government and higher education institutions are responsible for about 30% of total R&D spending, with the bulk of the remaining 70% done by businesses. This private sector R&D spending is distributed in a (broadly) similar pattern across the country, and is 1.9 times higher (per person) in London, the South East and the East of England than in the rest of the UK.

line of similar recommendations and promises. The 1963 Flemming Report proposed dispersing 57,000 jobs from London to the regions, and almost 40 years later the 2004 Lyons Review recommended significant dispersal of civil servants from London and the South East. The Conservative Party's 2017 election manifesto contained a promise to do just that. At the 2019 general election, the Labour Party promised to move a 'powerful section of the Treasury' to the North, while in 2004 the Liberal Democrats committed to moving the Treasury and the then Inland Revenue and Customs & Excise to Liverpool.

Were a substantial number of civil service jobs to be moved out of London, this would come after a decade where the number of civil servants has increased in London (by 4,700 full-time-equivalent, or FTE, workers) but fallen in every other region of England (by 66,400 FTEs). As Figure 7.9 shows, the number of FTE civil

**Figure 7.9. Change in the number of full-time-equivalent civil servants, by English region, since 2010**



Note: Figures are for the number of full-time-equivalent civil servants employed on 31 March of each year.

Source: Authors' calculations using ONS civil service statistics (2010–18) and Cabinet Office civil service statistics (2019–20).

servants in England fell by 17% between 2010 and 2013, at roughly the same pace across the regions of England. Numbers fell by 13% in the North East, 15% in London and 21% in the East of England over that period. After that point, London staff numbers rebounded sharply, and the number of civil service jobs based in London is now 6% higher than a decade earlier. This is in sharp contrast to the experience of all other parts of England, where the number of FTE staff remains between 15% lower (North West) and 32% lower (East of England) than in 2010.

One argument for moving jobs out of London is to provide direct economic benefits to the new location. This comes from the jobs themselves (and the wages they pay), the wider benefits from a boost in demand for local goods and services, the opportunities they offer to local workers (especially if incumbents leave rather than move with their job), and the potential for government jobs to make an area more attractive as a location for private business. Many of these benefits are likely to be greater for more senior, higher-skilled, better-paid civil service jobs. The latest figures indicate that while 20% of all civil servants are in London, the equivalent figure for the most senior civil servants is 64% (Cabinet Office, 2020).

Another argument is that moving roles outside of London could help shift the policymaking centre of gravity – an argument made explicitly by Labour in 2019. This would seek to address a perceived bias towards the capital among decision-makers.<sup>31</sup> It is certainly true that some types of civil service jobs are heavily concentrated in London. As of March 2020, 64% of policy roles, 75% of economics roles and 40% of statistics roles within the civil service are based in London. This compares with just 14% of operational delivery roles and 25% of digital, data and technology roles (Cabinet Office, 2020). The potential benefits of a rebalancing across the country are genuine, but intangible and difficult to estimate. The decision to relocate around 1,000 Office for National Statistics (ONS) jobs from London to Newport in 2005–06 is, in some respects, a cautionary tale. Some 90% of the 1,000 or so staff based in London chose to leave the organisation, rather than follow their job to Newport, with some evidence that this adversely affected the quality of work done by the ONS (Bean, 2016). In making relocation decisions, the government

<sup>31</sup> For example, there is some evidence that some transport projects in London with relatively low benefit–cost ratios (BCRs) have gone ahead, while projects in other parts of England with far higher initial BCRs have not: see Coyle and Sensier (2020) for a discussion. On the other hand, recent work from González-Pampillón and Overman (2020) finds no strong evidence of systematic bias towards particular regions.

should take care to avoid suffering a similarly damaging loss of experienced and highly skilled personnel.

### Existing programmes aimed at ‘levelling up’

A number of place-based policies and spending programmes already exist. In designing a ‘levelling-up’ agenda, the government is not starting from scratch and will be able to build on these existing structures. We now discuss a number of them.

#### The Towns Fund

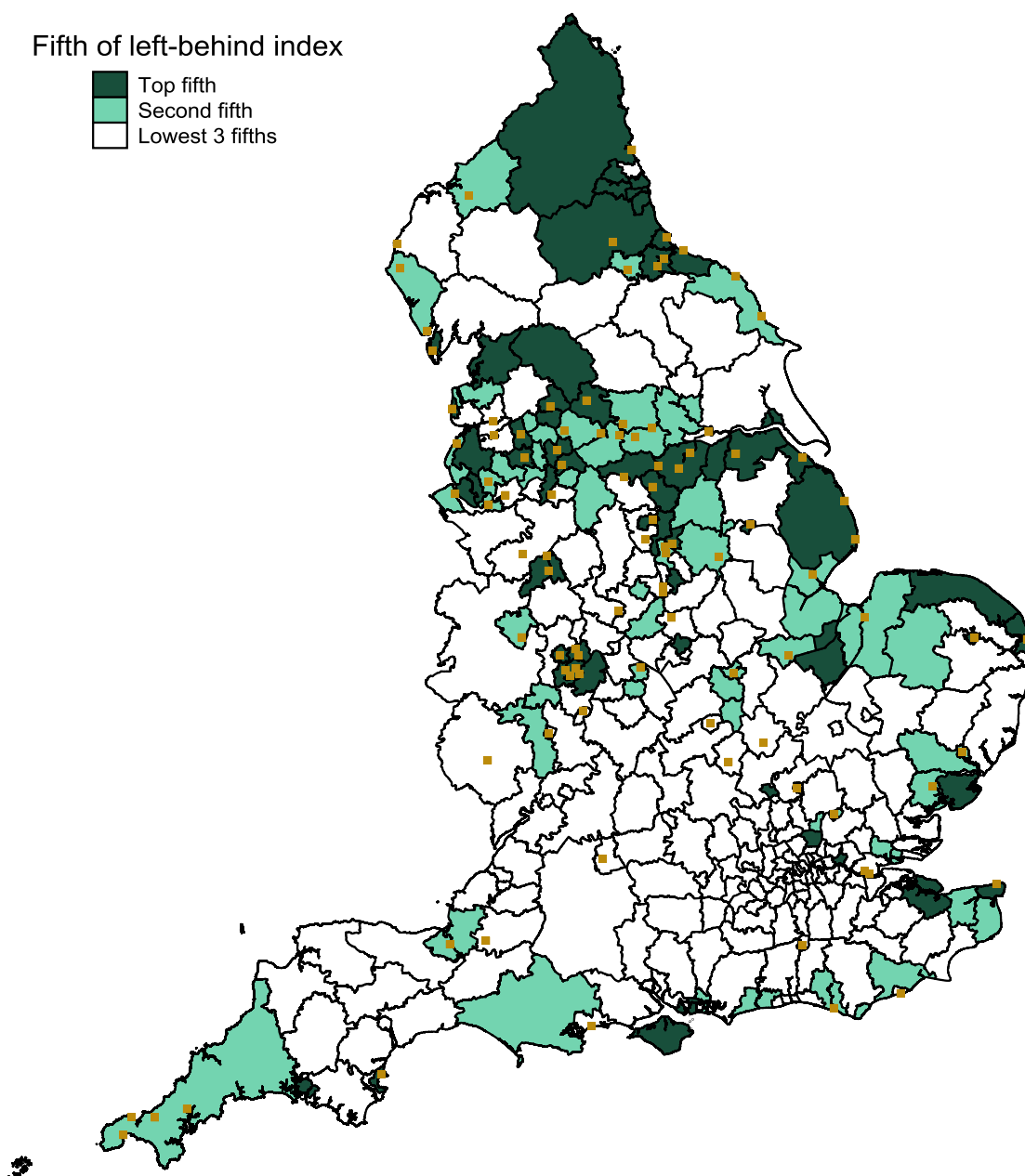
As political focus shifted towards ‘left-behind’ towns in 2019, the government launched its £1.6 billion Towns Fund in England, including £1 billion to be allocated on the basis of a needs-based formula (with most funding directed to the Midlands and North of England) (HM Government, 2019). This was subsequently combined with the previously announced Future High Streets Fund, and topped up by an additional £1 billion in July 2019, as part of the Prime Minister’s speech launching the government’s ‘levelling-up’ agenda (Johnson, 2019). Selected towns can get up to £25 million in one-off funding (though exceptional cases can receive double that) to put towards certain local priorities, such as improved transportation links, retraining and skills support, and investment in culture and heritage. 90% of the funding available is capital (rather than current) funding.

The first 100 towns to be involved in the Towns Fund were announced in September 2019, with a large number of the selected towns located in the North and Midlands of England.<sup>32</sup> To explore how well targeted this funding is and how well it aligns with the wider ‘levelling-up’ agenda, we map the towns receiving funding from the scheme onto the areas classified as the 40% most ‘left behind’ on the index discussed earlier in the chapter.

Figure 7.10 shows that over two-thirds of the towns receiving funding from the scheme are in areas classified as being in the 40% most ‘left behind’ on our index, with 38 of them in the bottom fifth (shaded in dark green on Figure 7.10). This indicates that the fund is relatively well targeted at places that appear in need of support, and many of the places scheduled to receive funding that do not lie within

<sup>32</sup> For a complete list of the recipients of funding, see <https://www.gov.uk/government/news/100-places-to-benefit-from-new-towns-fund>.

**Figure 7.10. Location of Towns Fund recipients relative to left-behind areas**



Note: Dark green shaded areas indicate the 20% most 'left-behind' areas (the top quintile) on our left-behind index. Light green shaded areas are in the second 20% most 'left-behind' areas (second quintile). Yellow squares indicate towns scheduled to receive Towns Fund funding.

Source: Ministry of Housing, Communities and Local Government. See the online appendix to this chapter for details of components of the left-behind index.

‘left-behind’ local authorities, such as Workington and Crewe, are still relatively deprived (even if the surrounding local authority is not).

Broadly, then, the formula used to determine recipients (which gives a high weight to income deprivation but also incorporates skills, productivity and exposure to EU exit) appears to be functioning well.<sup>33</sup> However, the selection process also includes discretionary measures chosen by the Ministry for Housing, Communities and Local Government, and gives a 20% weighting to ‘alignment to wider government intervention’. This has led to accusations that the choice of towns was at least partly politically motivated.<sup>34</sup>

### Other place-based spending programmes

Beyond the Towns Fund, a number of other place-based funds have been announced for England in recent years.<sup>35</sup> A detailed analysis of each of these is beyond the scope of this chapter, but they are important context for the spending decisions to be taken later in the year, as the government may seek to build on (or rationalise) existing programmes. A summary is provided in Table 7.4.

The schemes vary in their size, time frame and purpose, and in the extent to which they are aimed at ‘levelling up’. Most are made up predominantly of capital funding, and most are less explicitly targeted at ‘left-behind’ areas than the Towns Fund. In particular, some of the earlier schemes – such as the Transforming Cities Fund and the Local Growth Deals – were focused on transport and productivity, rather than helping ‘left-behind’ areas.

<sup>33</sup> Exposure to EU exit is determined based on a Bank of England list of sectors at risk in a no-deal, no-transition Brexit. Full details of the selection process for the towns chosen for intervention (including details of which areas scored highly and were not selected, and vice versa) can be found in National Audit Office (2020).

<sup>34</sup> See, for instance, ‘Labour questions impartiality of England’s £3.6bn regeneration money allocation’, *Financial Times*, 21 July 2020, <https://www.ft.com/content/b6d1a0aa-c861-4e6b-b642-6f5fe9fbee86>.

<sup>35</sup> The focus here is on England, because it is these programmes which are expected to be covered in the Spending Review. Other parts of the UK have similar schemes in place (such as the Scottish Town Centre Fund, <https://www.gov.scot/news/new-scheme-to-support-town-centres/>) but decisions over these are devolved and so will not be made in the Spending Review. Our analysis earlier in the chapter indicated that many ‘left-behind’ areas are outside of England, with Wales appearing particularly vulnerable. It is therefore important that ‘levelling up’ encompasses the whole of the UK, and not just England.

**Table 7.4. Regional spending schemes in England**

Scheme	Total fund amount	Time frame	Places targeted
Restoring Your Railway Fund	£500 million	2020–	Non-specific, many successful projects in the North/Midlands
Towns Fund	£2.6 billion	2019–	100 towns, mostly in the North/Midlands
Future High Streets Fund	£1 billion	2019–	100 high streets across England
Transforming Cities Fund	£2.45 billion	2018–23	18 city regions in England
Opportunity Areas	£90 million	2017–	12 areas of low social mobility
Local Growth Deals	£9.1 billion (England)	2014–20	Local enterprise partnerships in England, extended to other nations of the UK since 2018
Coastal Communities Fund	£229 million	2012–20	A large number of coastal towns in England
EU structural funds, ERDF and ESF	£6.2 billion	2014–20	Local enterprise partnerships in England (funding also allocated to devolved nations)

Source: Restoring Your Railway Fund, <https://www.gov.uk/government/publications/re-opening-beeching-era-lines-and-stations>; Towns Fund, <https://www.gov.uk/government/news/100-places-to-benefit-from-new-towns-fund>; Future High Streets Fund, <https://www.gov.uk/government/collections/future-high-streets-fund>; Transforming Cities Fund, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/765425/transforming-cities-fund-supplementary-guidance-for-shortlisted-city-regions.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765425/transforming-cities-fund-supplementary-guidance-for-shortlisted-city-regions.pdf); Opportunity Areas, <https://www.gov.uk/government/news/18m-extension-to-opportunity-area-programme> and [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/747975/2018-09-04\\_OA-process-eval\\_FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/747975/2018-09-04_OA-process-eval_FINAL.pdf); Local Growth Deals, <https://researchbriefings.files.parliament.uk/documents/SN07120/SN07120.pdf>; Coastal Communities Fund, <https://www.gov.uk/government/collections/coastal-communities>; EU structural funds, <https://www.ifs.org.uk/publications/14936>.

Rather than reinventing the wheel, the government could use its focus on levelling up to build a broader strategy around how these different schemes fit together. Increasing the funding or increasing the number of areas benefiting from these schemes could then be a starting point for a ‘levelling-up’ agenda.

Table 7.4 also highlights an imminent challenge facing the government, which is that two of the largest sources of regional development funding – the Local Growth Deals and EU structural funds – only provide funding to the end of 2020 (although some projects may continue beyond this for a time). Over the past seven years, these sources of funding have together provided more than £15 billion to local enterprise partnerships (LEPs) to spend regionally, and this money has also underpinned many of the recent moves towards devolution in places such as Greater Manchester and South Yorkshire. The government has already announced that the UK Shared Prosperity Fund will replace EU structural funding; we return to this later in this section.

### Other issues and questions for consideration at the Spending Review

As discussed earlier in the chapter, an effective ‘levelling-up’ agenda would need to encompass multiple policy areas and span a period of years, if not decades. But many of the early decisions relating to the design of the ‘levelling-up’ agenda are due to be made later this year, at the Spending Review. These include, for example, departmental capital budgets, the funding settlement for local government, and details on which EU spending programmes the government intends to replace (and how). Many of these decisions will involve difficult trade-offs, made only more difficult by the turbulent economic backdrop. As is argued in Chapter 6, given the unprecedented degree of economic uncertainty, there is a strong argument for holding only a one-year Spending Review, and delaying many of these and other decisions until a point where some of that uncertainty has dissipated. Nonetheless, some decisions will need to be made, and the Spending Review provides an obvious opportunity for the government to make progress on its ‘levelling-up’ agenda. Many of the areas discussed above – such as investment in transport and R&D – will fall within the scope of the Spending Review. Here, we discuss a further (non-exhaustive) set of issues and outstanding questions that will need to be considered and/or addressed.

### Which areas to target?

First and foremost, the government needs to decide what it is trying to achieve through ‘levelling up’ and to define what success would look like. Is the objective of ‘levelling up’ to revive the fortunes of the UK’s ‘left-behind’ towns as economic success stories in their own right? Or ought the focus to be on improving the productivity of large cities outside of London, to allow them better to support their regional hinterlands?<sup>36</sup> Should funding be targeted at where it is most needed, or where it would have the most impact? If the government tries to be all things to all people and all places, it will spread itself too thinly and fail to achieve meaningful change. Prioritisation will be key. In addition, it is important that the method for determining which areas to target is not perceived as politically motivated. An objective, transparent process for allocating any new funding would be beneficial.

As we have outlined in this chapter, ‘left-behind’ areas vary across multiple important dimensions. The challenges facing a struggling coastal community may be very different from those faced by a post-industrial town or deprived urban centre, and different types of support will likely need to be targeted at different areas. Our analysis indicates that, in general, ‘left-behind’ areas are not the areas most vulnerable to the economic impact of COVID-19, but there are important exceptions. We ought to be particularly worried about the fate of deprived coastal communities that were already struggling, and now appear especially vulnerable to the short-term economic impact of the pandemic. Targeted support for those areas and communities may be necessary in the months and years ahead.

### Providing certainty through longer funding cycles

Change cannot be achieved overnight. Economic development and growth-enhancing programmes take careful planning and require time to implement. For officials in central and local government seeking to design and deliver such programmes, there are considerable advantages to the certainty provided by multi-year funding cycles, which allows for effective planning. Government capital budgets are typically set for four or five years at a time, and EU funding for regional development came in seven-year cycles. Although the uncertain economic climate does not lend itself to multi-year planning, and short-term funding arrangements would allow the government to retain flexibility, the government

<sup>36</sup> The case for the latter has been convincingly made by, among others, the OECD (2020) and the Centre for Cities (Swinney and Enenkel, 2020).

should strongly consider whether local ‘levelling-up’ funding could be allocated over a similar time frame. The issues such an agenda seeks to address are deep-seated and long-standing, and progress will require a coherent and joined-up approach across areas. Long-term funding arrangements would help foster such an approach and encourage local areas to commit to potentially transformative schemes.

### Looking beyond capital investment

Much of the focus to date has been on investment spending, with particular focus on transport infrastructure. But ‘levelling up’ needs to be about much more.

It may be that some towns are close to a prosperous city and would benefit from improved transport links to that city, to enable workers with higher spending power to move in and commute. On the other hand, for towns not within a practicable commutable distance to an economic hub, additional transport spending is unlikely to be the answer to their problems. For these places, a more natural focus might be investing in skills training (for example, in further education colleges) or business support schemes. Other places might gain most from investment in cultural amenities to attract young graduates to live and work there. The flexibility to pursue different approaches that are suited to local needs, rather than a one-size-fits-all approach, will be important.

The government also needs to consider the appropriate mix between capital funding (for building new infrastructure) and current funding (to keep it running). Many local funding schemes announced to date are capital intensive. The Towns Fund, for instance, is composed of 90% capital funding and just 10% current (or ‘revenue’) funding. This is not necessarily a problem if a capital investment generates savings or revenue in the future. But if it creates ongoing running costs once built, this can pose problems for local authorities and discourage them from investing. For example, new bus lanes are of little use if the council cannot find the money to pay bus drivers. An increase in funding for investment projects is not unwelcome, but needs to be coupled with adequate current funding to ensure that new transport systems, colleges and local infrastructure can be operated effectively.

### Don’t forget local government funding

This relates to a wider point about local government, which will be an important vehicle for any ‘levelling-up’ agenda. Local government funding has been cut

substantially over the past decade, with the largest cuts falling on more deprived areas (Harris, Hodge and Phillips, 2019). In the face of pressures from an ageing population, councils' spending is increasingly focused on (mandatory) social care services, to the detriment of other, non-obligatory services. Between 2009–10 and 2019–20, councils in England reduced spending on planning and development services by 59% in per-person terms (ibid.). This includes, among other items, spending on economic development, community development, economic research and business support – exactly the sorts of spending that one might expect to be helpful in promoting local economic growth. Further cuts to local government funding would be difficult to reconcile with a coherent 'levelling-up' agenda.

More broadly, reforms to the system of local government finance have been moving in the direction of making councils more reliant on locally raised revenues and less reliant on central government grants. One risk is that poorer areas, with smaller council tax bases, struggle to raise the amounts necessary to keep pace with social care pressures and are forced to make savings elsewhere (such as economic development budgets). A government committed to 'levelling up' could, and should, act to avert this scenario.

Local government organisation as well as funding ought to be considered in light of the 'levelling-up' agenda. Devolution of significant economic power to the regions could be as important as, or more important than, decisions made in Whitehall.

### Avoiding a naïve approach to levelling up

Investment spending is not the only form of spending that varies across the country: spending on health, education and other public services is also higher in some parts of the UK than others (Zaranko, 2020). In part, this is driven by variation in the cost of providing public services. It is more expensive to employ a nurse in Lambeth than in Leeds, for example. But the regions and nations of the UK also differ in their *need* for various types of spending. We would expect health spending to be higher where the local population is older or less healthy, we would expect police spending to be higher in areas with more crime, and we would expect benefits spending to be higher in regions with higher unemployment rates.

If the government were to take a literal and blunt approach to 'levelling up' these forms of spending, it would mean delivering additional funding to the areas of the country with the least need for it (or cutting spending where pressures are greater). While this perhaps sounds impossibly naïve, this is the broad approach that has

already been taken with schools: the Prime Minister's promise to 'level up' schools spending means additional resources for schools in wealthier areas with fewer disadvantaged pupils and fewer pupils for whom English is not a first language (Sibieta, 2020). Applying a similar approach across the board could mean boosting funding for well-off parts of the South East and East of England, rather than poorer, 'left-behind' areas. The government needs to ensure that additional resources are well targeted.

### The design of the new UK Shared Prosperity Fund

Over the period between 2014 and 2020, the UK has received an average of €1.6 billion (around £1.4 billion) per year in economic development funding from the European Union, via the European Regional Development Fund (ERDF) and the European Social Fund (ESF). However, with the UK leaving the EU schemes fully at the end of the transition period in December 2020, these funding sources will no longer be available.

These EU funds are large relative to other regional development funds available in the UK, and the 2019 Conservative Party manifesto committed to replacing EU funding with the UK Shared Prosperity Fund (UKSPF). This fund has been linked to increasing skills training and is expected to form a part of the government's broader 'levelling-up' agenda.

However, no details of the scheme have yet been announced and, with funding from existing EU schemes to run out in just a few months, the government is overdue in setting out more details of the design and funding allocation of the UKSPF. It would be wise to integrate the new UKSPF into the wider place-based policy and 'levelling-up' agenda. Previous IFS research has outlined many of the policy options and challenges involved in the design of the UKSPF (Davenport, Phillips and North, 2020).

### The potential for rationalising existing programmes

Table 7.4 shows that at least seven separate place-based spending programmes already exist within England alone. Each of these funds has different aims, target areas and time frames. Funding is also allocated to different bodies and levels of governance, including local authorities (in the case of the Towns Fund), local enterprise partnerships (in the case of EU funds and the Local Growth Deals) and combined authorities (in the case of the Transforming Cities Fund). This creates a

complex, overlapping patchwork of funding with the potential to deter joined-up, coherent local development plans and the potential to create duplication of effort when it comes to funding bids. The government should consider whether some of these existing programmes could be rationalised – perhaps under the umbrella of the UKSPF – to ensure that money is invested efficiently and effectively.

## 7.6 Conclusion

The UK is one of the most regionally unequal countries in the developed world. This government has pushed geographic inequalities to the top of the agenda and made clear its intent to boost economic performance outside of London and the South East, ‘level up’ across the country, and revive the fortunes of the UK’s ‘left-behind’ towns and cities. This is an ambitious agenda, and one that will not be quickly achieved with off-the-shelf policy solutions.

A great deal of detail is yet to be fleshed out. There is no single definition of a ‘left-behind’ place and no one-size-fits-all policy agenda. The challenges faced by cities such as Newcastle and Glasgow are different from those faced by towns such as Dudley and Merthyr Tydfil, which are in turn different from those faced by coastal communities such as Margate and Blackpool. The government cannot be all things to all places. If it wants to make real progress, it would be sensible to prioritise to ensure that resources are not spread too thinly.

There are two major shocks either in progress or on the horizon that threaten to complicate the situation. The first of these is the economic fallout from COVID-19; the second is the UK’s new trading relationship with the European Union. The long-term implications of both are highly uncertain, but each has the potential to have a significant impact on regional inequality. COVID-19, in particular, could induce structural changes to the UK economy that disperse prosperity away from major urban centres such as London in the longer term (though it is of course too early to say). In the short term, some parts of the country will be more vulnerable to the COVID-induced recession than others. Our analysis indicates that, in general, these are not the areas that would be traditionally considered ‘left behind’. However, some hospitality- and tourism-dependent coastal towns, and the centre of some Northern cities, do appear vulnerable on both fronts. The picture from Brexit is less clear, but we ought to be particularly worried about the potential impact on areas with significant manufacturing employment and/or a less-educated workforce,

many of which are already considered ‘left behind’. These impacts should be included as part of any ‘levelling-up’ agenda.

Designing and implementing a coherent policy agenda to reduce the UK’s entrenched regional inequalities, against a backdrop of Brexit and COVID-19, is a daunting task. In this chapter, we have focused on some of the short-term policy options that might form the start of such an agenda, such as the potential for investment in transport, R&D spending and the location of civil servants to be rebalanced across the country. All indications are that we can expect announcements on this in this year’s Spending Review. Decisions on these areas should be taken with care, and the government should avoid simplistic, knee-jerk announcements. And although it is perhaps not quite as eye-catching or glamorous, the Chancellor would be sensible to back up the important role of local governments in ‘levelling up’ with adequate funding, both capital and current.

It is important to emphasise that if ‘levelling up’ is to be successful, effort will need to be sustained over the longer term and the government will need to consider a much broader range of policies than just those discussed here. How and where to level up is a complicated question, and the government cannot solve it in one Spending Review (and should not try to do so). Nonetheless, this year’s Spending Review will be a natural place to start setting out a clearer direction of travel to help the UK’s left-behind areas.

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## 8. The temporary benefit increases beyond 2020–21

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### Key findings

- 1 The **number of families claiming universal credit (UC) has increased from 2.6 million in February 2020 to 4.2 million in May 2020**. Claimants are receiving higher entitlements than they were before – due to both the changes in their circumstances and the temporary increase in generosity of working-age benefits. Consequently, **spending on working-age benefits is now forecast to be 7% of national income in 2020–21**. This is 2% of national income higher than it was last year and the highest it has been since records began in 1978–79.
- 2 The temporary, £1,000-a-year increase in the UC standard allowance is due to expire in April 2021. If the number of UC claimants is the same in March 2021 as it was in May 2020, **this would see 4 million families lose an average of 13% of their benefits overnight**. Some families would be hit even harder: for example, a single, childless homeowner who is out of paid work would see their UC entitlement cut by 21%.

<sup>1</sup> We are grateful to Robert Joyce for helpful comments on this chapter and to Isaac Delestre for his assistance in calculating the employment income distribution using the Survey of Personal Incomes (SPI). We are thankful for co-funding through the UK Research and Innovation (UKRI), grant number ES/V00381X/1.

- 3 Choosing instead to **make the increase in the standard allowance permanent would, in the long run, cost the government £6.6 billion per year (in today's prices), adding roughly 10% to the annual cost of UC**, though undoing only a fraction of the cuts to benefits implemented since 2010. This would represent a **bigger increase to the entitlements of out-of-work claimants without children than has been seen over the whole of the past 45 years**. Nonetheless, the UK's system of support for out-of-work claimants would remain very thin by international standards.
- 4 The minimum income floor (MIF) in the UC system caps UC entitlements among the low-income self-employed at the same level as for full-time minimum-wage employees. The MIF has been temporarily suspended; permanently abolishing it **would cost £1.4 billion in the long run and would create some big winners**, with around 450,000 self-employed households gaining an average £3,200 per year. Most of these households are in the bottom fifth of the income distribution.
- 5 **The MIF has sensible aims:** combating fraud and avoiding subsidising non-viable self-employment. But there is room for improvement in its design; it penalises self-employed workers with fluctuating or seasonal incomes, compared with those whose incomes are more stable. **Instead of abolishing it, the government should consider adopting a cap based on a 12-month rolling average of earnings**. While there is a concern that the MIF chokes off otherwise viable businesses in their first few years of operation, **we find that – even before the introduction of the MIF – self-employed workers on means-tested benefits did not, on average, see significant increases in earnings over time**. In fact, two-thirds of those who remained in self-employment still earned below the MIF three years after becoming self-employed.

- 6 Prior to the pandemic, the link between local rents and the amount of housing support for low-income private renters had broken down; bizarrely, maximum support related to local rents in 2011. This meant that – rather arbitrarily – **families in some high-rent areas were eligible for less support than those in low-rent ones**. The government has temporarily re-established the link, by setting the maximum housing support level so it covers the rent of 30% of local rental properties in the private sector. **A link to contemporaneous local rents is clearly more sensible than the pre-COVID system, and the government should not return to the latter.**
- 7 Making the increase to housing support permanent would cost about £1 billion per year, with renters in London gaining the most. Alternatively, the government could set the maximum support level so that it covers 20% (rather than 30%) of local rented properties. **That would cost about the same as the pre-COVID system, but be fairer and less arbitrary.**

## 8.1 Introduction

In the wake of the coronavirus pandemic, the government introduced a raft of measures designed to shore up personal incomes. These included creating entirely new programmes – such as the Coronavirus Job Retention Scheme (CJRS, or ‘furloughing’ – now being replaced by the Job Support Scheme) and the Self-Employment Income Support Scheme (SEISS) – but also expanding the existing working-age means-tested social security system. This expansion came in the form of a number of measures (see Box 8.1) and included three large temporary working-age benefit giveaways that are the focus of this chapter:

- an increase to the standard allowance of universal credit (UC) by £1,000 per year (and an equivalent increase to the basic element of working tax credit, WTC);
- the suspension of the ‘minimum income floor’ (MIF), boosting entitlement to UC for low-earning self-employed workers; and

- an increase to local housing allowances (LHAs), which govern the maximum amount of support that low-income private renters can receive for housing costs.

The total cost of these reforms is £9.3 billion in 2020–21 (£7.8 billion excluding the increase to WTC, which we do not analyse in this chapter).<sup>2</sup> As things stand, it is unclear if or when some of these giveaways will end: the increase to the UC standard allowance is due to finish at the end of March 2021, the suspension of the MIF is in place until 13 November 2020 and the government has not stated its plans for LHAs beyond March.<sup>3</sup> But the OBR's costings assume that they do not persist beyond the end of this financial year.

In some cases, these temporary changes relate to areas of the UK benefit system that were already ripe for reform prior to the onset of the crisis. It is therefore now a natural time to think about the design of these parts of the system. In this chapter, we discuss the options that the government faces in unwinding, adjusting or making permanent these temporary giveaways. We focus on these specific policy decisions, since they will need to be made in the coming months (either because they are deliberately time-limited or because the end of the outbreak will – hopefully – be in sight over that horizon).

But, of course, the COVID-19 pandemic has also raised much wider questions about the broad shape and generosity of the UK social security system – for example, the extent to which the working-age benefits system prioritises trying to provide a minimum safety net for all versus tying benefits to what the recipient has ‘paid in’ earlier in life. Although vital, these broader questions are beyond the scope of this chapter; they will require not just the analysis of specific policy options, but a wider political debate on what we want the social security system to look like.

The rest of this chapter proceeds as follows. Section 8.2 gives some context on the UK's benefit system and the characteristics of working-age benefit claimants prior

<sup>2</sup> Office for Budget Responsibility (OBR), Coronavirus Policy Monitoring Database, July 2020, <https://obr.uk/coronavirus-analysis/>. Note that these figures include a small amount of other measures relating to the operation of the benefits and tax credit system, discussed in Office for Budget Responsibility (2020b, pp. 72–3).

<sup>3</sup> However, the Secretary of State for Work and Pensions has implied that the increase in LHA rates may be a permanent one – though no official plans appear to have been announced yet (<https://committees.parliament.uk/oralevidence/447/html/>).

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**Box 8.1. Other temporary working-age benefit measures**

As well as the three benefit giveaways that we focus on in this chapter (and the related increases to WTC), the government announced several additional, and important, temporary changes to the benefit system. These include:

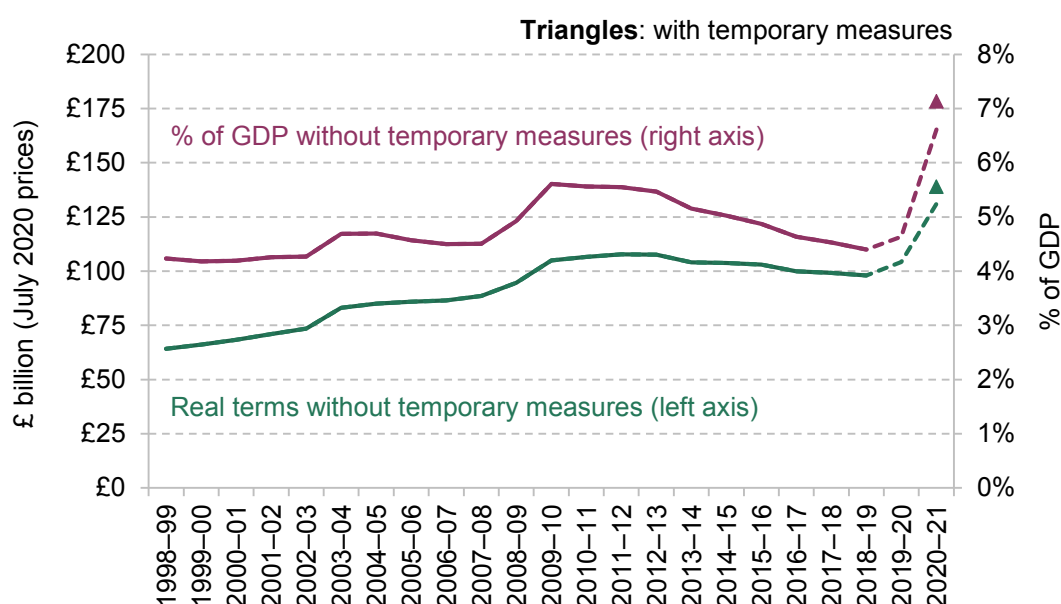
- All appointments at jobcentres were temporarily suspended.
  - Work-search requirements and other assessments and sanctions were temporarily relaxed.
  - COVID-related statutory sick pay was made payable from the first day of sickness absence, rather than the fourth. Furthermore, it was extended to people self-isolating and shielding.
  - Contributory ‘new-style’ employment and support allowance (ESA) was also made available from the first day of sickness rather than the eighth for those shielding, self-isolating, or incapable of working due to COVID-19 (if they had paid enough in National Insurance contributions over the last two to three years to meet the contribution threshold).
  - Most tax credit claims were automatically renewed. Tax credit payments to individuals working reduced hours due to coronavirus or furlough were unaffected as long as they remained employed.
  - A £500 million hardship fund was established to allow local authorities in England to reduce the annual council tax bill of individuals on council tax support by £150 for the financial year 2020–21.
- 

to and since the outbreak of the pandemic. Section 8.3 then focuses on the increase in the standard allowance of UC, while Section 8.4 looks at the withdrawal of the minimum income floor and Section 8.5 examines the increase to housing support. Finally, Section 8.6 concludes.

## 8.2 UK working-age benefits before and since the crisis

Since the crisis, the number of families claiming UC has increased substantially from 2.6 million in February 2020 to 4.2 million in May 2020 (some of these will have transitioned from pre-UC ‘legacy’ benefits, others will be entirely new claimants). The claimant count – which in normal times measures the number of

Figure 8.1. Spending on working-age benefits



Source: Authors' calculations using DWP Benefit Expenditure and Caseload Tables 2020 (<https://www.gov.uk/government/publications/benefit-expenditure-and-caseload-tables-2020>), DWP Benefit Expenditure and Caseload Tables 2019 (<https://www.gov.uk/government/publications/benefit-expenditure-and-caseload-tables-2019>), OBR March 2020 Economic and Fiscal Outlook and OBR July 2020 Fiscal Sustainability Report.

claimants who have to search for work to receive benefits – increased from 1.3 million individuals in February 2020 to 2.8 million in May 2020. The system is also paying out more per claimant; many who were already in receipt of benefits prior to the crisis will have seen their entitlements rise as their earnings fell. And, of course, the government has made working-age social security more generous overall through the temporary extensions discussed in this chapter.

The implications of these changes are shown in Figure 8.1, which shows spending on working-age benefits in real terms and as a share of GDP, including the OBR's central July 2020 forecast for 2020–21. The triangles denote the extra £9.1 billion spent on the temporary working-age benefit giveaways.<sup>4</sup> The OBR estimates that,

<sup>4</sup> This is different from the total cost of benefit giveaways – £9.3 billion – forecast by the OBR. That is because the increase to LHA rates increases entitlements for pensioners. We have approximated how much of the cost of giveaways is due to more pensioners receiving housing benefit (HB) using pre-crisis data on the share of private HB spending that goes to pensioners.

even without these giveaways, the sharp increase in the number of families receiving working-age benefits, and increased entitlements among existing claimants whose earnings fell, would have pushed up spending by around £25 billion. Consequently, working-age benefits expenditure is now forecast to be 2% of national income higher than it was in 2019–20 and easily the highest it has been since records began in 1978–79, both in cash terms and as a share of national income. These figures are of course only forecasts, and the available data on benefit expenditure thus far has come in below the OBR’s expectation (though still substantially above 2019–20).<sup>5</sup> But even under the OBR’s more optimistic ‘upside’ scenario, the hit to the labour market as a result of the crisis adds £17 billion to benefit spending, which, together with the policy measures, again would take spending to record highs.

### Characteristics of UC recipients

We now investigate how this influx of new working-age benefit claimants has changed the characteristics of recipients of UC. It is worth noting that this is not the same as the change in the characteristics of recipients of means-tested benefits: some claimants will have moved to UC from pre-UC ‘legacy’ benefits as a result of the crisis.<sup>6</sup>

Table 8.1 shows the number (and share) of families claiming UC prior to the onset of and during the COVID-19 pandemic (February and May 2020, respectively). Since the onset of the pandemic, there has been growth in the number of UC recipients among all family types and in all regions of Great Britain. Because growth has been relatively greater among some groups, the composition of families claiming UC has shifted. In particular, the share of UC recipients who are lone parents has fallen and the share who are childless singles has increased. Geographically, the rise in UC claimants has been disproportionately among those in the South of England.

Table 8.2 shows the number (and share) of individuals who receive UC by various individual characteristics. The composition of UC claimants has shifted towards

<sup>5</sup> <https://obr.uk/docs/September-2020-PSF-Commentary.pdf>.

<sup>6</sup> When a legacy benefit claimant has a change in circumstances, such as a job loss, they are moved onto UC. We focus on universal credit recipients rather than all working-age benefit recipients because data limitations prevent us from showing a consistent series of legacy benefit and UC recipients.

men, with both sexes now making up about half of UC recipients. In May, about two-thirds of UC claimants were out of paid work – the same share as prior to the crisis. This suggests that the sharp rise in claims was caused in part by falls in earnings, not just job losses. The age composition of UC claimants has also not changed much over the crisis.

**Table 8.1. Families claiming UC by family type and region (Great Britain only)**

	Number of families on UC (thousands)			Share of families on UC		
	Feb. 2020	May 2020	Change	Feb. 2020	May 2020	Change (ppts)
<b>Family type</b>						
Single, no children	1,318	2,339	+1,020	51%	55%	+4.0
Single, children	859	1,035	+177	33%	24%	–8.9
Couple, no children	93	276	+182	4%	7%	+2.9
Couple, children	305	590	+286	12%	14%	+2.1
<b>Region</b>						
Central England and Wales	648	1,034	+386	25%	24%	–0.8
North of England	748	1,147	+399	29%	27%	–2.0
Scotland	230	363	+133	9%	9%	–0.4
South of England	948	1,695	+748	37%	40%	+3.2
<b>Total number of families</b>						
	2,575	4,240	+1,665	100%	100%	0

Source: Stat-Xplore, ‘Households on Universal Credit’.

**Table 8.2. Individuals claiming UC by age, employment status and sex (Great Britain only)**

	Number of individuals on UC (thousands)			Share of UC claimants		
	Feb. 2020	May 2020	Change	Feb. 2020	May 2020	Change (ppts)
<b>Sex</b>						
Female	1,644	2,668	+1,024	56%	51%	–5.7
Male	1,271	2,591	+1,320	44%	49%	+5.7
<b>Employment status</b>						
Not in employment	1,906	3,433	+1,526	65%	65%	–0.1
In employment	1,009	1,827	+818	35%	35%	+0.1
<b>Age</b>						
16–24	475	852	+377	16%	16%	–0.1
25–49	1,855	3,342	+1,487	64%	64%	–0.1
50+	585	1,066	+481	20%	20%	+0.2
<b>Total number of individuals</b>						
	2,916	5,260	+2,344	100%	100%	0

Note: Numbers may not add up due to missing information on characteristics.

Source: Stat-Xplore, ‘People on Universal Credit’.

As discussed above, some new UC claimants are likely to have been claiming the ‘legacy’ benefits that UC replaces prior to the crisis, but then had a change in circumstances (such as a job loss) that meant they were moved onto UC. This means that the change in the composition of UC claimants specifically (which we show in Table 8.2) may differ from the change in the composition of people claiming any means-tested working-age benefit. Edmiston et al. (2020) analyse the

latter using a specialist survey.<sup>7</sup> They find that, relative to the existing stock of working-age benefit claimants, new claimants during the crisis are younger and more likely to be male, to come from minority ethnic backgrounds, to have had a higher-skilled occupation, to be university graduates, and to own their own home; they are less likely to be disabled. In some cases, these differences are quite large: for example, whereas only 15% of existing claimants had worked in a high-skilled occupation, among new claimants that figure rose to 26%.

Policymakers should keep these changes in mind for at least three reasons. First, as the labour market recovers, the characteristics of the stock of benefit claimants have implications for the speed at which claimants can get back into paid work or increase their earnings, and thus the speed at which the benefit caseload returns to something more like its pre-crisis level. Second, and closely related to the first, it will affect the type and amount of employment support that claimants should be provided with to help them move into paid work and off working-age benefits. Third, some of these characteristics are predictive of higher or lower lifetime incomes (see Brewer and Gardiner (2020)). This changes the distributional effects of benefit increases or decreases analysed on a lifetime basis.

## 8.3 Increasing the standard allowance of universal credit

We now turn to discussing the temporary benefit giveaways and the options the government faces. We make two key assumptions for the rest of the analysis in this chapter. First, we assume that UC has been fully rolled out (under current plans, it is only expected to be fully rolled out by September 2024, though the recent increase in claims could bring that forward as more have been brought onto UC sooner). Second, we assume that, in the long run, the labour market will look similar to its pre-crisis state in terms of the distribution of earnings across different types of individuals. Clearly, this assumption will not be perfect: economic activity has changed a lot since the onset of the pandemic, which will in turn change the

<sup>7</sup> The authors categorise ‘existing’ claimants as those who were claiming employment and support allowance, jobseeker’s allowance, UC or tax credits prior to the crisis. Claimants to the other two legacy benefits (housing benefit and income support) who begin a claim to a new benefit following the onset of the crisis will therefore be classified as a ‘new’ rather than existing claimant. However, claiming housing benefit or income support on its own is relatively unusual for working-age claimants, so this is unlikely to have had a material effect on results.

cost and impact of policies as well as the demographics of the households and individuals they affect. In both cases, we make these choices because our analysis is focused on the long-run impact of policy options, once the immediate effects of the pandemic have receded.

In March 2020, in reaction to the weak labour market following the onset of the COVID-19 pandemic, the government announced a temporary £1,000 per year increase to the standard allowance of UC (see Box 8.2 for information on the structure of UC), costing an estimated £5.5 billion in 2020–21.<sup>8</sup> Because it is a flat cash amount, it is more generous in proportional terms for groups with a lower standard allowance: this translates into a 17% increase in the standard allowance for couples and a 27% rise for singles aged at least 25.<sup>9</sup>

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### Box 8.2. The structure of the universal credit system

A claimant's UC entitlement is determined in three steps.<sup>a</sup>

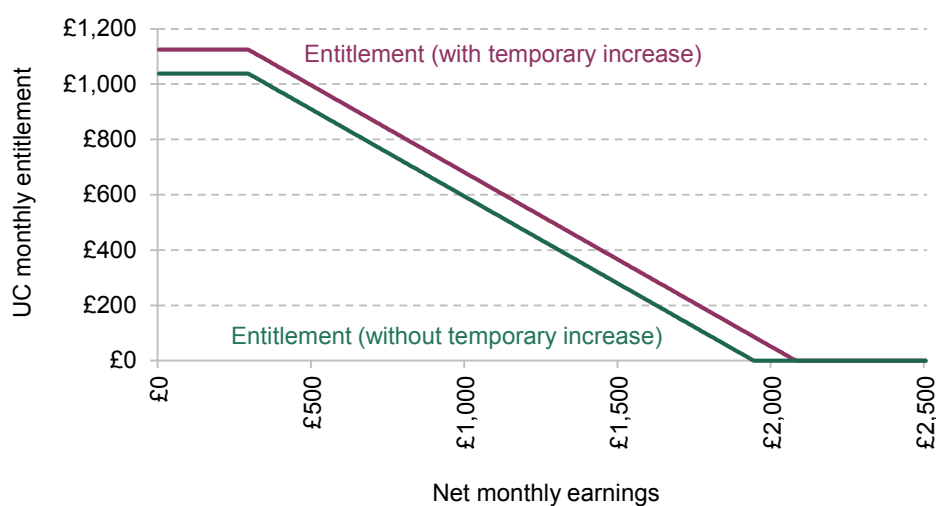
- First, their maximum entitlement – the amount they would get if they had no other income or savings – is calculated. This is the sum of a 'standard allowance' and additional allowances for children, rent, disabilities and childcare.
- Second, they are assigned a 'work allowance' – the amount they can earn before their UC starts to be withdrawn. This is higher for owner-occupiers than for renters, and is zero for all claimants without children and without a disability.
- Third, their final award is calculated by reducing their maximum entitlement by 63p for every pound of (after-tax) earnings above the work allowance.

This process is illustrated in Figure 8.2, which shows how entitlements vary with earnings for an example household (a single parent with one child, no disability and rent of £100 per week), with and without the temporary increase to the standard allowance in UC. With the temporary increase, their maximum allowance is £1,124 per month (made up of a standard allowance of £410, a child element of £281 and a housing element of £433). That is how much they would receive out of work. Their work allowance is £292 per month, and after-

<sup>8</sup> Office for Budget Responsibility, 2020b. Note the related increase in working tax credit (WTC) was costed at an additional £1.5 billion.

<sup>9</sup> The government also increased the WTC basic element by the same amount; however, we do not cover this here, given tax credits are in the process of being replaced by UC.

Figure 8.2. UC entitlement by earnings for an example household



Note: The example household is a single parent with one child, no disability and rent of £100 per week.

tax earnings above this level reduce their entitlement by 63p in the pound until the entitlement hits zero (when their after-tax monthly earnings exceed £2,070).

<sup>a</sup> We exclude some additional steps that affect a small number of claimants, including deductions for unearned income, savings, and the application of the benefit cap or minimum income floor.

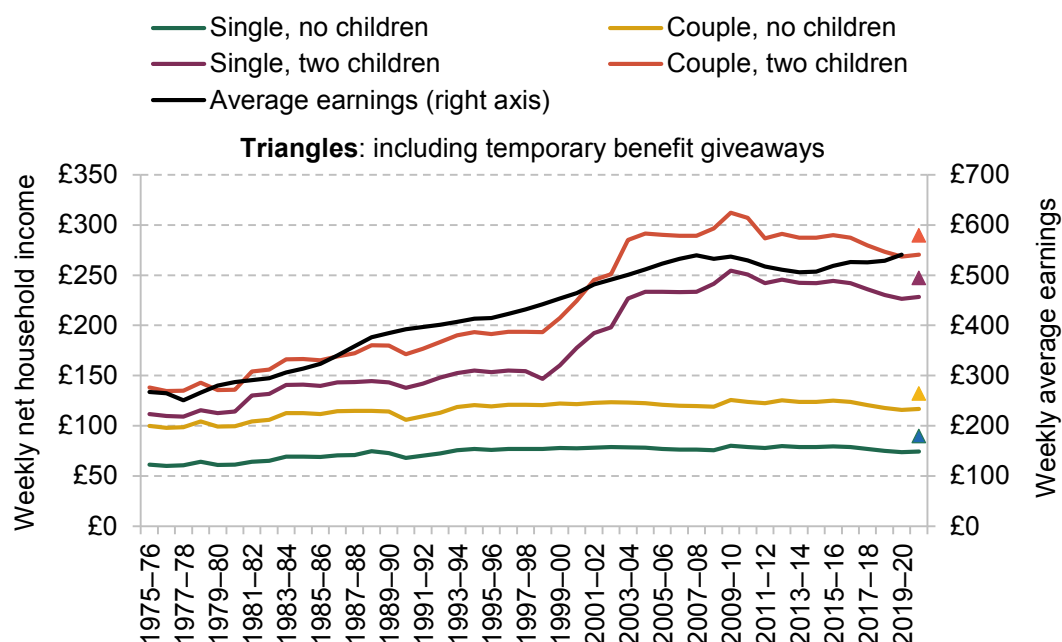
Increasing the standard allowance of UC benefits both in-work and out-of-work families.<sup>10</sup> However, it has a smaller proportional impact on the incomes of families in work who receive UC because they will have other sources of income.

## Changes in the UK benefit system

In this subsection, we put this reform in the context of the out-of-work benefit system in the UK over time. We use TAXBEN, the IFS tax and benefit microsimulation model, to simulate incomes for different types of households over

<sup>10</sup> Note that the government did not increase rates of legacy employment and support allowance (ESA) and jobseeker's allowance (JSA) or 'new-style' contributory-based ESA and JSA. The rationale behind this may be a combination of feasibility and, for the non-contributory legacy benefits, a desire to benefit those who directly saw a change in circumstances due to the pandemic (who would have been moved off legacy benefits because of the change). However, of course, even those already on out-of-work benefits will likely have a harder time finding paid work than they did before the crisis.

**Figure 8.3. Net household income over time for out-of-work families, by family type (July 2020 prices)**



Note: Entitlements for out-of-work, owner-occupier households with no other source of income who do not have a disabled family member. For families with children, the first child is aged 4 and the second 0. Figures in July 2020 prices, deflated using CPIH.

Source: Authors' calculations using TAXBEN and ONS average weekly earnings.

time (Waters, 2017). Figure 8.3 shows net household income (in July 2020 prices) for out-of-work families who own their own home under each tax and benefit system since 1975–76.<sup>11</sup>

While families with children have always received higher benefits than those without, the gap increased significantly in the late 1990s and early 2000s with the introduction and expansion of child tax credits. In 2020–21, before the temporary measures, a single person with two children would receive around three times as much as a single person without children (£228 per week, compared with £74).

The expansion of benefits for out-of-work families with children contrasts starkly with the treatment of childless households. Prior to the pandemic, out-of-work

<sup>11</sup> Renting families would have higher before-housing-costs income, as they are typically eligible for housing benefits. However, so long as all of their rent is covered by housing benefits, their after-housing-costs incomes would be the same as those shown here.

benefits for the latter group had been essentially unchanged in real terms for 25 years, and not grown much in the two decades prior to that. In fact, for childless families, the temporary £20 per week increase in benefits (denoted by the triangles) is larger than the change in out-of-work benefits over the entirety of the past 45 years. Over that period, single and coupled childless families saw their out-of-work support rise by a total of £12 and £16 per week respectively (in July 2020 prices). Average incomes have risen significantly since 1975, so out-of-work benefits for childless households have looked ever less generous relative to average income. For example, out-of-work incomes for a single childless person made up 23% of overall average weekly earnings in 1975 and just 14% in 2019.

### International comparisons of out-of-work benefits

How does the level of out-of-work benefits in the UK compare internationally? One way to measure this is with replacement rates – what a family’s income would be if one earner moved out of work, expressed as a fraction of its in-work income. Table 8.3 shows replacement rates, excluding housing benefits, for example families with one worker on average earnings in 2018 (so pre-dating the onset of the COVID-19 crisis and related temporary benefit measures; were the UK to make the £1,000 increase in UC permanent, replacement rates would be 3–4 percentage points higher).<sup>12</sup> In the UK, out-of-work incomes are largely unrelated to how much a worker previously earned (and how much they ‘paid in’ to the system, via payroll taxes (National Insurance contributions)): a family with no income or savings gets the same benefits regardless of their work history. This is relatively unusual internationally; in most countries, there is a much stronger ‘contributory’ element, which means that workers with stronger work histories and higher earnings are entitled to higher benefits when they lose their job. This means that comparisons of the generosity of the UK’s out-of-work benefit system with those in other countries will depend on the earnings of the worker in question.

In Table 8.3, we therefore show the replacement rates of the UK’s out-of-work benefit system against the OECD average for a worker with and without access to contributory benefits. Replacement rates in the UK are, for all family types, below

<sup>12</sup> These results are for families with one worker paid average earnings. Replacement rates in the UK and across the OECD are higher for workers with lower earnings, but the qualitative and quantitative differences are similar.

**Table 8.3. Replacement rates for different family types for workers on average earnings, 2018**

	UK	OECD average	
		Without contributory benefits	With contributory benefits
Single, no children	0.13	0.20	0.55
Single, two children	0.35	0.40	0.66
Couple, no children	0.20	0.31	0.57
Couple, two children	0.41	0.47	0.66

Note: Based on a family with one worker paid average earnings. 'With contributory benefits' shows what replacement rates would be for a worker receiving unemployment benefit who is aged 40 and has worked uninterrupted since age 19. All figures relate to the second month of unemployment. Ignores housing benefits. Children are 4 and 6 years old. The OECD average is measured across 36 OECD countries (Turkey is excluded because of lack of data availability). The replacement rate measures out-of-work income as a share of in-work income.

Source: Authors' calculations using OECD.Stat.

the OECD average for workers without contributory benefits – and they are well below those for workers with them. In fact, for families without children who have access to contributory benefits, the UK's replacement rates are the lowest in the OECD. As mentioned briefly in the introduction, the lack of contributory benefits in the UK has become more salient in the coronavirus pandemic, as a large number of workers have become exposed to substantial losses in income – something which has partly been addressed by the CJRS and SEISS.

### Making permanent the increase in the standard allowance

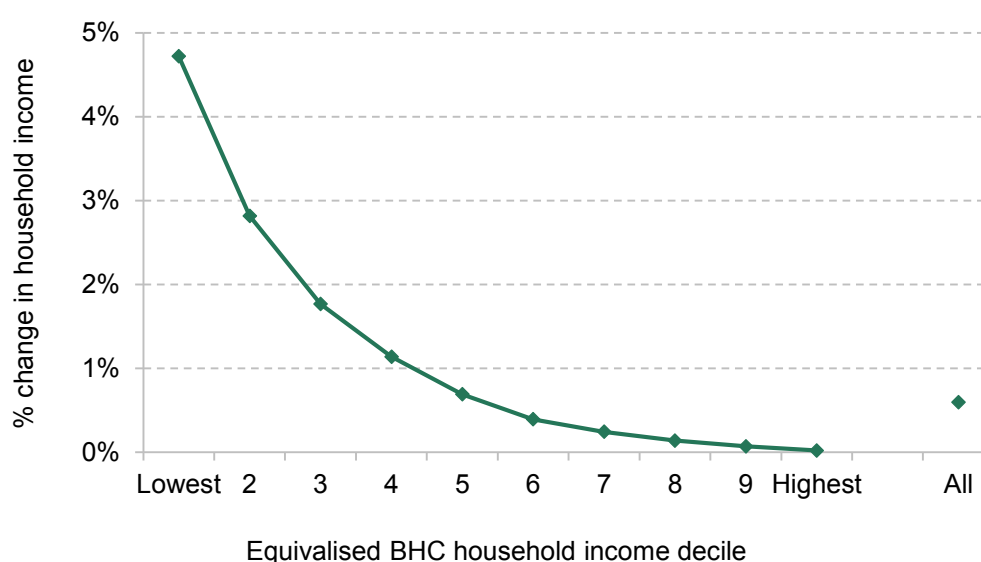
Given these historical and international comparisons, a government might wish to increase the support available for out-of-work families in the UK. One way to do that is to make the temporary increase in the standard allowance of UC permanent.<sup>13</sup> When UC is fully rolled out, this would cost the government

<sup>13</sup> As proposed by the House of Lords Economic Affairs Committee (2020).

£6.6 billion per year (in today's prices). In the short run, this reform would also mean that those on UC would have higher entitlements than those on out-of-work legacy benefits. The government could, of course, increase the rates of legacy benefits as well as UC and, in any case, many legacy benefit recipients in this situation might choose to move across to UC.

Figure 8.4 shows the effect of increasing the standard allowance by £1,000 per year on household incomes, by household income decile.<sup>14</sup> Not surprisingly, the policy is clearly progressive: on average, it increases the income of the poorest 10% of households by 5%, with a fairly rapidly declining impact on each decile above that.

**Figure 8.4. Impact of temporary increase in the standard allowance of UC, by household income decile**



Note: Sample is households in the UK. All incomes have been equivalised and are measured before housing costs have been deducted. Households are put into household income deciles based on their pre-UC increase equivalised before-housing-costs (BHC) net household income.

Source: Authors' calculations using the Family Resources Survey 2018–19 and TAXBEN.

<sup>14</sup> To show the impact of the temporary increase in the standard allowance of UC on household income, we use the Family Resources Survey (FRS) and TAXBEN. The FRS is an annual survey of around 20,000 households with detailed information on incomes. The latest data cover the financial year 2018–19.

However, increasing the standard allowance also weakens work incentives, as it means that out-of-work incomes become larger relative to in-work incomes. Work incentives are weakened the least for richest individuals, both because the £1,000 increase makes up a smaller share of their in-work income and because other income sources mean that the family might not be entitled to UC even if one worker stopped working. The weakening of work incentives is the greatest for those in low- to middle-income families, while the impact on the work incentives of the poorest families is smaller; these families are more likely to be on UC whether or not they work, and so gain from the standard allowance increase either way.

If the government were minded to make the system more generous in a permanent way then, rather than maintaining the higher allowances, it could instead increase work allowances (the level of earnings at which UC starts to be withdrawn) or cut the UC taper rate (the speed at which UC is withdrawn as earnings rise). This would increase incomes among low-income working families, and improve incentives to have at least one member of the household in work – something that the government might find appealing during the recovery period. However, it would not benefit those out of work: they would still experience the £20 a week drop between March and April 2021, when the temporary boost to allowances expired. For the same cost as the £20 per week increase, the government could instead raise work allowances<sup>15</sup> by roughly £86 per week or reduce the taper rate by 22 percentage points.

Alternatively, the government could continue with the default policy of returning to pre-crisis standard allowances. If part of the rationale for increasing the standard allowances in the pandemic was that the weak labour market meant higher benefits had a more limited effect on work incentives, then accordingly as the labour market recovers that rationale recedes. (An intermediate option, of course, is to extend the increase in the standard allowance, say for another year, in the event that come April the labour market still looks weak.)

If the government does return to the pre-crisis UC standard allowance levels, it is important that it communicates this well in advance, as it will result in a significant and sudden drop in households' benefit entitlements. If the number of UC claimants

<sup>15</sup> For those who have a work allowance, i.e. those with children or a disability.

in March 2021 is the same as it was in May 2020, around 4 million families would see an £87 drop in their monthly UC entitlements overnight – equivalent to a 13% fall in entitlement on average.<sup>16</sup> But for some households, the proportional fall will be much greater. For example, a childless, non-disabled, single owner-occupier with no other source of income would see a 21% decline in their total UC entitlement.

## 8.4 Minimum income floor

As part of its response to the COVID-19 crisis, the government has also temporarily suspended the ‘minimum income floor’ (MIF), meaning that low-income self-employed workers are now entitled to higher levels of support through UC.<sup>17</sup> This change affects around 450,000 households, who on average will benefit by £3,200 per year (at a total cost to government of around £1.4 billion).

The MIF affects some self-employed claimants of UC, who – prior to the crisis – were treated as earning the full-time minimum wage even if they reported earning less (and so were eligible for less support than their reported earnings would suggest). Indeed, the low-income self-employed are one of the clear groups of losers from the UC reform. A fuller description of the MIF can be found in Box 8.3.

The MIF can be interpreted as achieving several possible aims. First, it disincentivises self-employed claimants from (illegally) under-reporting their earnings – which is easier for self-employed workers than employees – in order to get a higher UC award (or lower tax liability). Second, because self-employed claimants are not required to search for additional work, the MIF disincentivises individuals from claiming UC as a self-employed worker with low or zero earnings to avoid job-search requirements.<sup>18</sup> Third, it avoids the government subsidising low-earning or non-viable self-employment. The ‘start-up period’ element of the MIF is intended to allow people time to build their business.

<sup>16</sup> Authors’ calculations using Stat-Xplore.

<sup>17</sup> <https://www.understandinguniversalcredit.gov.uk/employment-and-benefits-support/self-employment/>.

<sup>18</sup> There is an additional protection against this possibility: work coaches at Jobcentres must decide whether they think that a claimant is ‘gainfully self-employed’. If not, then job-search requirements can be applied (and the MIF not applied).

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**Box 8.3. The minimum income floor**

Unlike legacy benefits, UC includes a ‘minimum income floor’ for the self-employed, which reduces the entitlement to UC for self-employed workers who report low earnings. If a self-employed claimant’s earnings are below the MIF, the government calculates their UC award as if their earnings were in fact equal to the MIF.

The MIF is specified as the minimum wage that applies to the claimant<sup>a</sup> multiplied by the number of hours that they are expected to look for and be available for paid work,<sup>b</sup> net of any income tax and National Insurance contributions that would be payable on earnings of that level. In other words, a self-employed worker cannot receive more UC than an otherwise-identical minimum-wage employee working the number of hours deemed appropriate by their Jobcentre Plus work coach (for most, 35 per week).

The MIF is applied on earnings (from employment and self-employment) each month and does not apply during the first year of a UC claim, provided an individual set up their business within the 12 months before the claim (the so-called ‘start-up period’ or ‘grace period’).<sup>c</sup> For couples, total family earnings from self-employment and employee jobs are compared with a combined minimum income floor. Broadly, the MIF is then applied to each individual’s earnings if both their individual earnings are below the individual MIF *and* the combined household earnings are below the combined MIF.

<sup>a</sup> This is the National Minimum Wage for those aged under 25 and the National Living Wage for those aged 25 and over.

<sup>b</sup> For most, this is 35 hours per week. For lone parents with children aged 3–13, it is 25 hours per week. For others, including lone parents with a child under 3, individuals with limited capability for work or work-related activity and those with certain other caring responsibilities, no MIF is applied.

<sup>c</sup> Note that claimants can only have the ‘start-up period’ applied again if they have started new self-employed work and at least five years have passed since the beginning of their last start-up period.

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Two aspects of the MIF may attract the eye of a reforming government. First, the MIF is applied on a monthly basis – that is, a claimant’s earnings are calculated each month and if they are below the MIF, the MIF is applied. However, the income of self-employed workers is often highly volatile, due to seasonality or infrequent, large payments. Applying the MIF each month means that a self-employed worker with volatile earnings is left worse off than one with the same annual income whose earnings are steady: during the lean months, the worker with volatile earnings is subject to the MIF and so sees their UC reduced. But during their higher-earning months, the worker’s higher earnings will mean they are

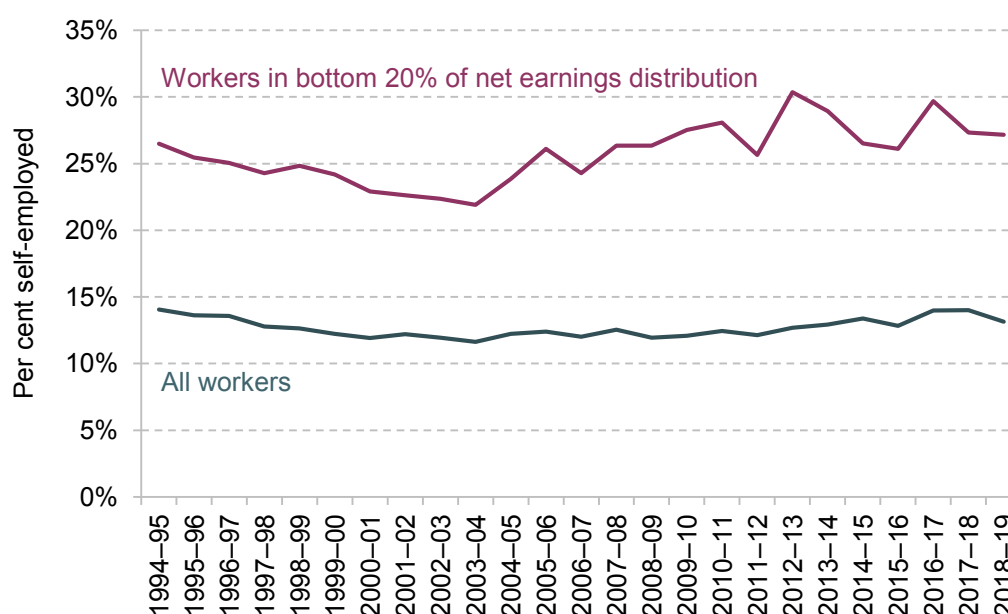
eligible for smaller UC payments (or even none at all), with no consideration of that earlier loss.

Second, it is an open question whether the ‘start-up period’ of one year is a sufficient amount of time for a claimant to build a new business. If it is not long enough, the MIF may actually harm potentially viable new start-ups. Certainly the ‘right’ time period is likely to depend on the type of business the individual is starting up.

## The earnings of the self-employed

In March 2020, the government announced a temporary suspension of the MIF, set to last until 13 November 2020. In this subsection, we analyse trends in self-employment, the distribution of self-employment earnings and their persistence, and the effect of the MIF on household incomes. With those results in mind, we discuss policy options that the government could consider when the temporary suspension ends.

**Figure 8.5. Proportion of individuals aged 25–59 in work that are self-employed**



Note: Sample is individuals aged 25–59 in Great Britain. We define ‘self-employed’ workers as individuals who receive more than 50% of their earnings from self-employment.

Source: Authors’ calculations using the Family Resources Survey 1994–95 to 2018–19.

We begin by examining trends in self-employment over the past 25 years. Figure 8.5 shows the proportion of workers that are self-employed, both overall and for workers in the bottom fifth of the net earnings distribution. Self-employment (as a proportion of those in work) has risen in the UK over the last two decades, having declined over the late 1990s. This rise has been seen both overall and among lower-earning workers. Research has shown that the recent increase in self-employment has been driven by the ‘solo self-employed’ – sole traders who operate without employees – and an increase in the number of older and younger people becoming self-employed (Cribb and Xu, 2020).

Cribb and Xu (2020) show that, although on average they earn less, the earnings of the self-employed have a much wider distribution than those of employees, with large numbers at the bottom and top of the overall earnings distribution. Adam, Miller and Waters (2020) find that self-employed workers are also more likely to be in low- and high-income families than employees.

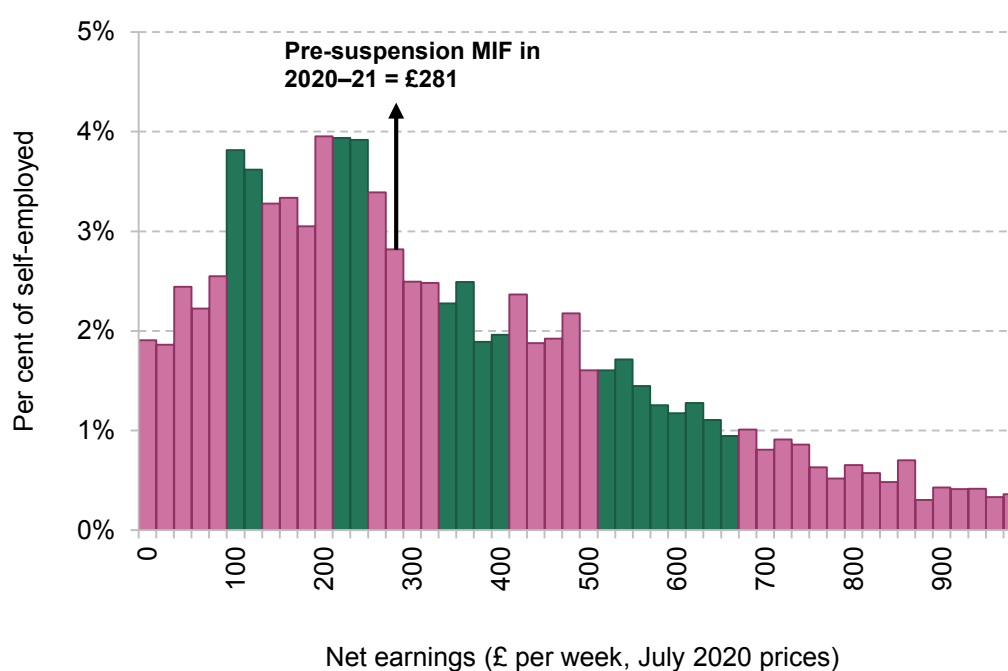
Figure 8.6 shows the distribution of net earnings from employment and self-employment for the self-employed.<sup>19</sup> The alternate green and pink coloured bars mark the deciles of net earnings, with the top decile omitted to aid readability.

Without the temporary suspension of the MIF in 2020–21, the MIF would have been £281 per week for men aged 25–64 and women aged 25–59 who were expected to work 35 hours a week. We find that – prior to the pandemic – over two-

<sup>19</sup> This distribution is derived from survey data. It is well known that self-employment earnings are not well captured by surveys. This is partly because self-employment earnings are more variable than employee earnings and snapshots of individuals’ earnings may give a false impression of earnings of the self-employed. The Family Resources Survey (FRS) partly accounts for this by asking for average monthly (or weekly) earnings from self-employment over the last 12 months rather than relying on last period’s earnings. We compare this distribution with that found in the Survey of Personal Incomes (SPI) – a sample of all income tax records, which is made available by HM Revenue and Customs (HMRC) and has detailed information on individual taxable incomes – to check the employment income distribution of the self-employed. These distributions might differ because of misreporting in surveys, because of under-reporting to tax authorities or because those who only worked part of the financial year will appear to have lower earnings in the SPI (which simply reports total earnings over the year). We find that the employment income distribution in the SPI is fairly similar up to about £1,000 per week, though with more on low earnings in the SPI. The fraction of workers with earnings above that differs between survey and administrative tax data, but this part of the distribution is not relevant for our application. We show the two distributions in Figure 8A.1 in the online appendix.

fifths (43%) of the self-employed, and two-thirds (64%) of the self-employed who receive means-tested benefits, earn below the MIF.<sup>20</sup>

**Figure 8.6. Distribution of net earnings amongst self-employed, aged 25–59**



Note: Net earnings is weekly employee earnings and average (over past 12 months) of weekly self-employment earnings. We exclude self-employed individuals who are not expected to be available for or look for work for 35 hours per week and therefore are affected by the MIF to a lesser extent if at all. Earnings are uprated to July 2020 using the average earnings index. The MIF is calculated by multiplying the National Living Wage in 2020–21 by 35 and subtracting income tax and National Insurance contributions payable on actual earnings at that level. We therefore ignore the more complex rules that apply to calculating the MIF for couples. We exclude individuals with negative or zero earnings. We exclude the top decile.

Source: Authors' calculations using the Family Resources Survey and Households Below Average Incomes (HBAI) 2010–11 to 2018–19.

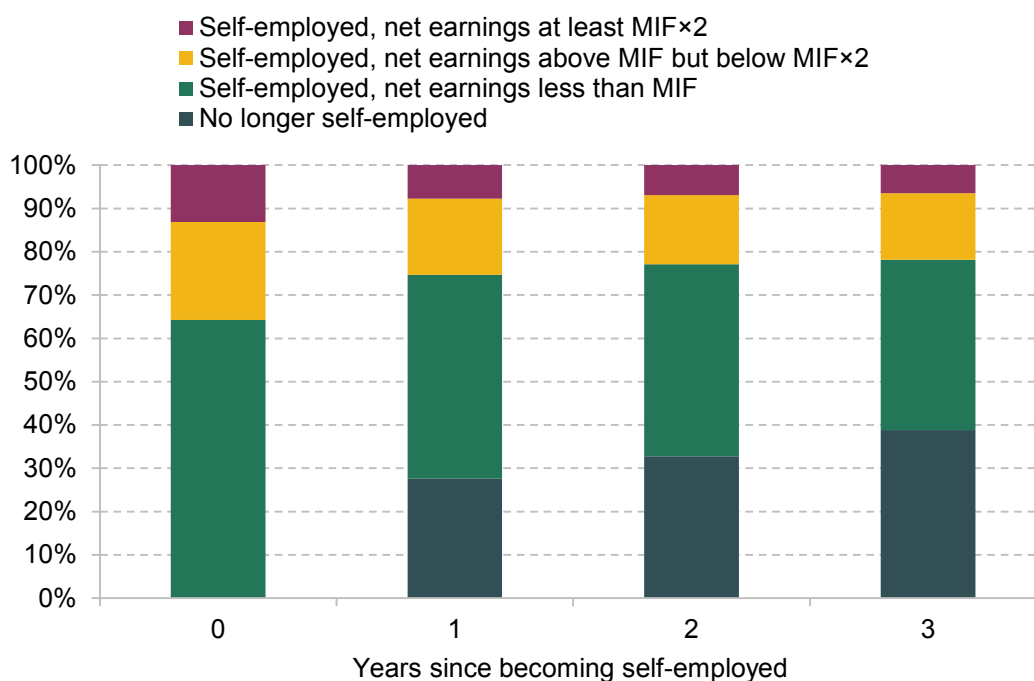
<sup>20</sup> This is the individual MIF. It is possible for self-employed workers earning below the MIF to nonetheless not have the MIF applied if they are in a couple with a working partner (see Box 8.3). Furthermore, we use average weekly or monthly income to determine whether an individual earns above or below the MIF, when in reality actual monthly income is used to determine this. This means we may be slightly over- or under-estimating the number of self-employed earning below the MIF as we cannot account for volatility in income.

These are clearly high fractions. It is therefore important to know whether these workers have low earnings because they are newly self-employed and building their business – and thus not subject to the MIF because they are in the start-up period – or whether this is a more permanent situation.

We therefore now turn to look at a self-employed worker's earnings over time.

Figure 8.7 shows the earnings, over a four-year period, of the self-employed who

**Figure 8.7. Self-employment status and net earnings among individuals receiving means-tested benefits in their first year of self-employment**



Note: Sample is individuals who move into self-employment at time  $t$ , who are receiving means-tested benefits at time  $t$ . We exclude self-employed individuals who are exempt from the MIF and focus on individuals aged 25–59 for females and 25–64 for males. While most of our data pre-date the MIF, we construct a notional 'MIF level' for each worker. To do this, we downrate the National Living Wage for each relevant year with average earnings growth (to strip out the effects of successive increases in the minimum wage), multiply it by the number of hours individuals are required to work, and apply the relevant tax and National Insurance system to get the net MIF. We then compare nominal earnings (employee and self-employment earnings) with the net MIF. In doing so, we ignore the more complex rules used to calculate the relevant MIF for couples.

Source: Authors' calculations using Understanding Society (UKHLS) waves 1–9 (2009 to 2018).

were receiving means-tested benefits in their first year of self-employment.<sup>21</sup> This can be thought of as the trajectory of self-employed workers who might be subject to the MIF.

In the first year of self-employment, 64% of individuals earned below the MIF, 23% earned between the MIF and twice the MIF, and 13% earned at least twice the MIF. In the second year after having entered self-employment, around 28% of these workers are no longer self-employed; two years after this, 39% of the original group are not still self-employed. This is consistent with previous research finding high rates of exit from self-employment (Cribb, Miller and Pope, 2019). Importantly, the group that exits self-employment will likely include both some workers who are not successful (and so choose to give up on their business and return to employment) and workers who are sufficiently successful that they choose to incorporate in order to enjoy the tax advantages of being a company owner-manager.<sup>22</sup>

Taking just those individuals who remain self-employed throughout the four-year period, Figure 8.7 shows that in all four years, two-thirds earn below the MIF, with the proportion in each of the other groups also remaining stable over time. This is a striking finding: it suggests that self-employed workers on means-tested benefits who begin with low earnings do not, on average, go on to build their business into a considerably higher-earning endeavour. (It is worth noting that the benefits that new self-employed workers claim in our data are almost entirely the pre-UC, ‘legacy’ benefits, which did not include a MIF, and so these patterns are not *caused* by the MIF.)

<sup>21</sup> Here we use the UK Household Longitudinal Study (UKHLS; also known as Understanding Society, or USoc), which is a household survey that follows the same individuals each year (between 2009 and 2018) and contains detailed information on individual and household characteristics and incomes.

<sup>22</sup> In general, USoc classifies owner-managers as employees. However, it is possible that individuals who perceive themselves as being self-employed, but are in fact legally owner-managers and therefore employees of their own business, are classified as being self-employed and thus are in our sample. It is also possible that some of the self-employed who exit self-employment in reality have incorporated and therefore are no longer self-employed. Unfortunately, we are not able to identify these people adequately.

## Options for the MIF beyond 2020–21

Current government policy is to suspend the MIF until 13 November 2020. We now turn to discussing the implications of the results presented thus far for alternative options that the government could pursue.

First, the government could simply make the temporary suspension of the MIF permanent. This would largely benefit the poorest households (and would benefit them quite a lot), at an annual cost to the exchequer of roughly £1.4 billion. Households affected by the MIF have on average a 27% lower income than employee households on UC, and would see their average income rise by 25%.

However, as discussed at the beginning of this section, the MIF does have sensible aims, particularly disincentivising fraud. Getting rid of the MIF permanently would also have some downsides for both efficiency and equity. It would amount to subsidising low-earning self-employed workers whose businesses do not grow. It would arguably also be unfair: currently, employees earning less than their full-time minimum wage are not subject to a MIF, but are (at least outside of the COVID-19 lockdown) subject to in-work conditionality (i.e. they need to show that they are looking for higher-paid work or more hours of work to continue to claim benefits). Abolishing the MIF, at least without instituting in-work conditionality for the self-employed, would mean that employees would be unfavourably treated relative to otherwise-similar self-employed workers. This would inappropriately encourage lower-earning employees receiving UC to instead engage in low-income self-employment.

As a second option, the Chancellor could instead choose to retain the MIF but to extend the start-up grace period.<sup>23</sup> This would cause the MIF to affect fewer claimants (a one-year extension would reduce the number of affected households from 450,000 to 400,000) and would mainly boost the incomes of low-income households. It would also give more time for self-employed workers to build their business. However, Figure 8.7 indicates that self-employed workers on means-tested benefits do not, on average, see their earnings from self-employment rise over time. This suggests that having a start-up period of only one year does not typically choke off what would turn out to be high-earning businesses. Instead, changing the length of the start-up period is best thought of as representing a trade-

<sup>23</sup> As proposed by, for example, the Low Incomes Tax Reform Group (2017).

off between boosting the entitlements of (relatively poor) self-employed workers and weakening the MIF's anti-fraud advantages.

Third, the government could of course just reinstate the MIF, as implied by current policy. This would lead to some self-employed claimants receiving a sharp drop in their income from one month to the next. If the government is minded to do this, then it is important this is well communicated in advance to those claimants who are likely to be affected so that they are able to try to boost their income or to move into standard employment. The government could also consider reinstating the MIF gradually rather than putting it back all at once. This would come at a small and time-limited budgetary cost, but would reduce the extent to which individuals whose self-employment earnings (and other circumstances) are not changing see a sizeable drop in their income from one month to the next.

These three options all involve a variant of standard equity–efficiency trade-offs. However, the Chancellor could instead choose this moment to make some structural changes to the MIF and potentially improve its design with a view to mitigating the problems of volatile earnings discussed above.

One obvious option would be simply to treat the self-employed the same as employees, and replace the MIF with in-work conditionality – the requirement for those on low earnings to look for additional work. Like the MIF, this would help combat fraud and avoid the government subsidising non-viable businesses, and in one sense it would make the system for employees and the self-employed more similar. The downside is that, while a low-earning employee is almost certainly working a low number of hours (and therefore may have more hours available to search for additional or higher-paid work), the same is not true for the self-employed. Thus, searching for additional or alternative paid work might be quite difficult without actually working and thus earning less, potentially weakening the business the claimant is trying to build. It could also be difficult for work coaches, who assess adherence to in-work conditionality, to distinguish between a self-employed person who is spending the requisite amount of time searching for additional work (for example, looking for new clients) and a self-employed person who is simply working a lot of hours for low pay without any real prospect of their earnings rising.

A much more appealing option would work as follows:

- Determine whether or not to apply the MIF using a 12-month rolling average of earnings, rather than monthly earnings.
- If a claimant's 12-month rolling average is above the MIF, then calculate monthly entitlements using actual earnings that month.
- If a claimant's 12-month rolling average is below the MIF, then calculate monthly entitlements as if they earned equal to the MIF.
- Maintain a one-year start-up period; then from the start to the end of the second year, steadily increase the MIF level from zero to its full amount.<sup>24</sup>

The purpose of steadily increasing the MIF over the second year is to avoid a situation where, in the thirteenth month of self-employment, the MIF determination is made using earnings over that first year when they had just started their business. Steadily increasing the MIF over the second year ensures that, for a worker who had reached the MIF level by the end of their first year, each month would see a rising MIF applied against a rising level of average earnings from the previous 12 months.

What are the effects of this reform on those with volatile earnings, who sometimes earn above and sometimes below the MIF? Under this scheme, claimants with volatile earnings whose monthly earnings sometimes dip below the current MIF but who, on average, earn above it would not have the rolling MIF applied to them. These workers would receive higher benefit payments in months where their earnings are lower (unlike in the pre-COVID system, where this inverse relationship between earnings and benefits holds only as long as earnings are above the MIF threshold). They would also receive the same annual support as similar employees. In high-earning months, their UC entitlements would be the same as under the current system (since the MIF would not apply in either case). In low-earning months, their UC entitlements would be greater under this scheme (as the MIF would not be applied).

Conversely, claimants with volatile earnings whose average earnings are below the MIF would always have the MIF applied and would receive the same amount each month. In low-earning months, they would receive the same amount as they do under the current application of the MIF; in high-earning months where they earn

<sup>24</sup> As discussed by the Work and Pensions Select Committee ([https://publications.parliament.uk/pa/cm201617/cmselect/cmworpen/847/84707.htm#\\_idTextAnchor013](https://publications.parliament.uk/pa/cm201617/cmselect/cmworpen/847/84707.htm#_idTextAnchor013)).

above the current monthly MIF, they would receive more benefits (since the system would take account of their lower earnings in other months).

The reform would also mean that the MIF would take longer to be applied for those who see a sharp, sustained drop in earnings (as their 12-month average might remain above the MIF for a period). And those who were earning below the MIF who see a sustained rise would continue to receive higher awards for a short while (as their 12-month average might remain below the MIF for a period).

Applying the MIF in this way would come at the cost of making UC more expensive (by an unknown, but likely small, amount), since relative to the pre-COVID system this change only creates winners. In some cases (those with fluctuating incomes that average above the MIF and those seeing a sustained fall), it would make benefit entitlements more responsive to changes in earnings; in other cases (such as those with fluctuating incomes that average below the MIF and those seeing a sustained rise), entitlements would respond more slowly, giving higher entitlements to claimants in high-earning periods.<sup>25</sup>

While the effect on the responsiveness of the system is ambiguous, what is clear is that those with volatile incomes would be treated more similarly to otherwise-identical claimants with stable incomes. This seems to be a desirable feature: it is difficult to see why the government should want to give more support to those with stable incomes.

In the absence of a strong reason for prioritising support to those with stable incomes, a design along these lines would be well worth considering. Such a design could even be made cost-neutral relative to the pre-COVID system by, for example, raising the MIF slightly.

<sup>25</sup> In general, there is a fairly basic trade-off in benefit design: calculating incomes over longer periods allows a better targeting towards those who are persistently poor, but means that the system is more sluggish in responding to sharp changes in incomes. That the effect of this proposal on responsiveness is *ambiguous*, despite using information about incomes over a longer period, is unusual.

## 8.5 Housing support for private renters

In this section, we discuss the temporary increase in local housing allowance (LHA) rates, which cap the housing benefits available to private renters (see Box 8.4 for a summary of how the system works).

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### Box 8.4. The system of housing support for private renters in the UK

Low-income private renters can claim housing benefit (HB) or get support for housing as part of their UC claim. Housing benefit covers a household's entire rent, but in most cases it is capped at the 'local housing allowance' rate. LHA rates vary geographically (with the UK split into around 200 'Broad Rental Market Areas', or BRMAs) and with the size and composition of the household (with larger households receiving a higher LHA rate).

From 2008–09 to 2010–11, LHA rates were set at the median of local private rents (excluding properties where the tenant was in receipt of housing benefit).<sup>a</sup> In 2011–12, they were reduced to the 30<sup>th</sup> percentile, and national caps were introduced which reduced LHA rates in some parts of central London. Since 2013–14, the government has ceased to uprate LHA rates according to changes in local rents, and instead has at different times frozen them, uprated them by 1% per year or uprated them in line with CPI inflation.<sup>b</sup> This has reduced the generosity of housing support (as rents have tended to grow faster than LHA rates), with the greatest reductions experienced in areas with the fastest rent growth.

In March 2020, the government announced an increase in LHA rates, back to the 30<sup>th</sup> percentile of local private-sector rents (aside from where the national caps bite). It also raised the national caps, setting them at 20% above the highest LHA rate in the outer London BRMAs.<sup>c</sup> The government has not stated its plans for LHA rates beyond March.<sup>d</sup>

**Methodology:** Prior to the introduction of universal credit, housing support for private renters was provided through a specific benefit – housing benefit. Claimants could receive other benefits (such as tax credits or out-of-work benefits) at the same time. Under UC, however, for most working-age benefit recipients these benefits are all wrapped up into one. In this chapter, we quantify support for housing in UC by taking the difference between a household's actual UC entitlement, and what their UC entitlement would be in the absence of any support for housing (i.e. if all LHA rates were zero). For simplicity, we also refer to this amount as 'housing benefits'.

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## Notes to Box 8.4

<sup>a</sup> The system prior to 2008 was fairly similar. Maximum HB entitlement was the lower of a claimant's rent and the median of 'reasonable market rents' in the local area, where the 'local area' was defined in a somewhat less precise manner than BRMAs.

<sup>b</sup> In 2014, the government introduced 'targeted affordability funding' (TAF), where a proportion of savings that had accrued from uprating LHA rates by 1% or zero instead of CPI were used to increase rates (by up to 3%) in selected areas that had drifted furthest from local rents. However, LHA increases were capped at 3%, regardless of how far rents had fallen behind.

<sup>c</sup> <https://www.legislation.gov.uk/ukxi/2020/371>.

<sup>d</sup> Though, as noted in footnote 3, the Secretary of State for Work and Pensions has implied that this change may be made permanent.

The temporary increase would have cost the government around £1.1 billion a year based on pre-pandemic caseloads; now, with higher numbers of benefit claimants, the cost will be higher as well. As things stand, it is unclear what the government plans are for LHA rates beyond the coronavirus pandemic.

## Trends in private renting and housing benefits

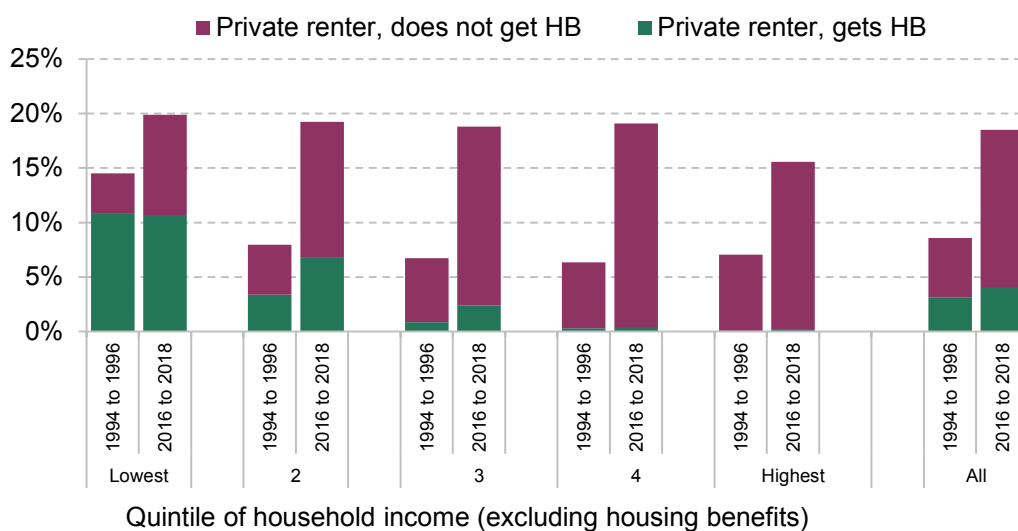
We begin by examining trends in private renting and housing benefits over the past 25 years. Over this period, there have been substantial changes in housing tenure. Figure 8.8 shows the share of households in Great Britain<sup>26</sup> that were private renters in 1994–95 to 1996–97 and 2016–17 to 2018–19 by quintile of household income (excluding housing benefits). It splits this up into households that report receiving and those that do not report receiving HB.

There has been a substantial 10 percentage point (ppt) increase in private renting overall, driven by a decrease in both social renters and owner-occupiers. The rise in private renting has been relatively widespread across the income distribution, though smaller at the bottom (Joyce, Mitchell and Norris Keiller, 2017).

But although the proportion of private renters overall has increased substantially over this period, the proportion of households that are privately renting and receiving housing benefits has remained largely unchanged (up by just 1ppt). This is partly due to the rise in the number of private renters further up the income

<sup>26</sup> We are not able to include Northern Ireland in this part of the analysis, as the earlier data do not include it. However, further down, when we investigate the different options for unwinding the temporary increase to HB, we include the whole of the UK.

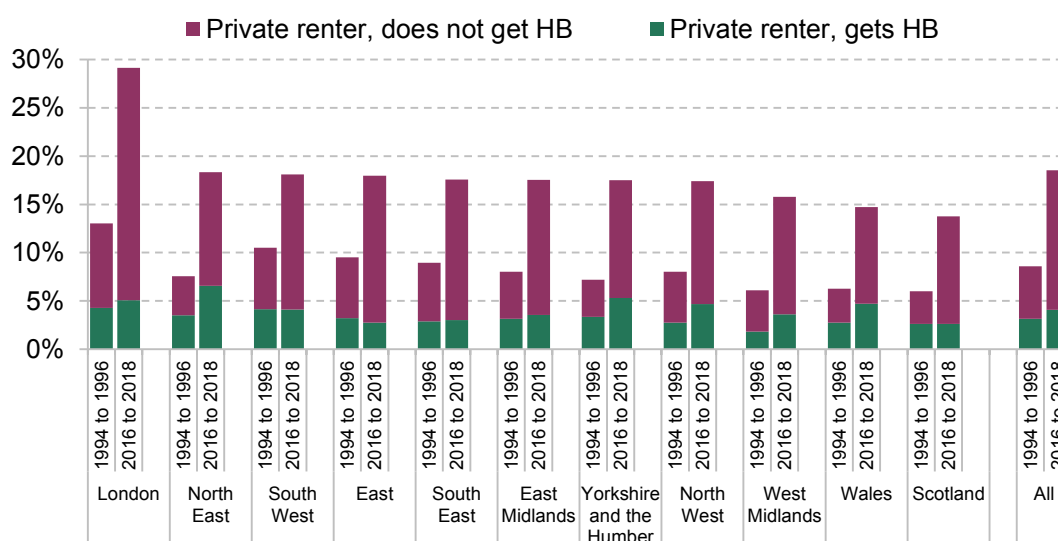
**Figure 8.8. Share of households that are private renters with and without HB, by quintile of non-HB income**



Note: Great Britain only. All incomes have been equivalised and are measured before housing costs have been deducted.

Source: Authors' calculations using the Family Resources Survey, 1994–95 to 1996–97 and 2016–17 to 2018–19.

**Figure 8.9. Share of households that are private renters with and without HB, by region**



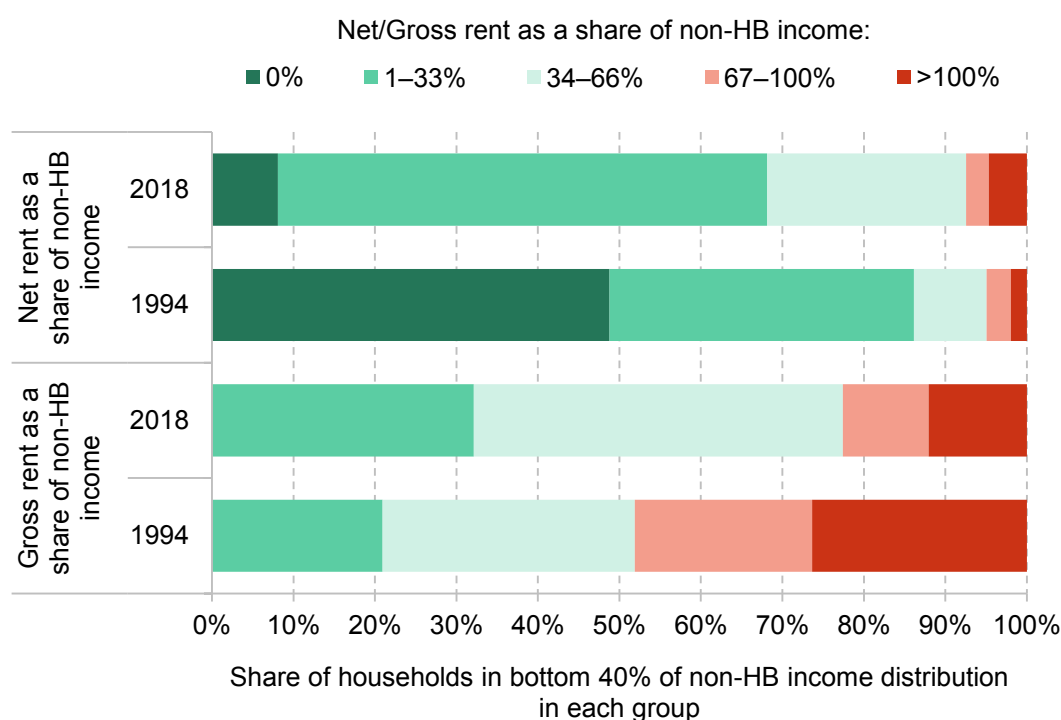
Note: Great Britain only.

Source: Authors' calculations using the Family Resources Survey, 1994–95 to 1996–97 and 2016–17 to 2018–19.

distribution (who rarely receive HB). But even within income quintiles, the share of private renters who receive HB has declined or remained constant. This reflects the fact that the generosity of the housing benefits system has been reduced over time (see Box 8.4).

Figure 8.9 shows that the growth in private renting has also been widespread across regions, although London stands out as having experienced by far the largest increase in private renters. The figure also confirms that, across all regions, the share of households privately renting and receiving housing benefits has changed little in the last 25 years.

**Figure 8.10. Net and gross rent as a share of household income (excluding housing benefits) among private renters in bottom 40% of household income distribution**



Note: Great Britain only. We exclude households with negative or zero gross rent or non-HB household income. The poorest 40% of households are the poorest in terms of equivalised household income (measured before housing costs have been deducted and excluding housing benefits). Assumes full take-up of housing benefits.

Source: Authors' calculations using the Family Resources Survey, 1994–95 and 2018–19 and TAXBEN.

We now turn to understanding the role that housing benefits play in covering rent, and how that role has changed over time. Figure 8.10 looks at private renters in the bottom 40% of the distribution of household income (as Figure 8.8 shows, this is the group most likely to receive HB). It shows the fraction of their non-HB income that is made up of gross rent (the total rent their landlord is due) and net rent (the amount of rent that they have to pay after deducting HB).

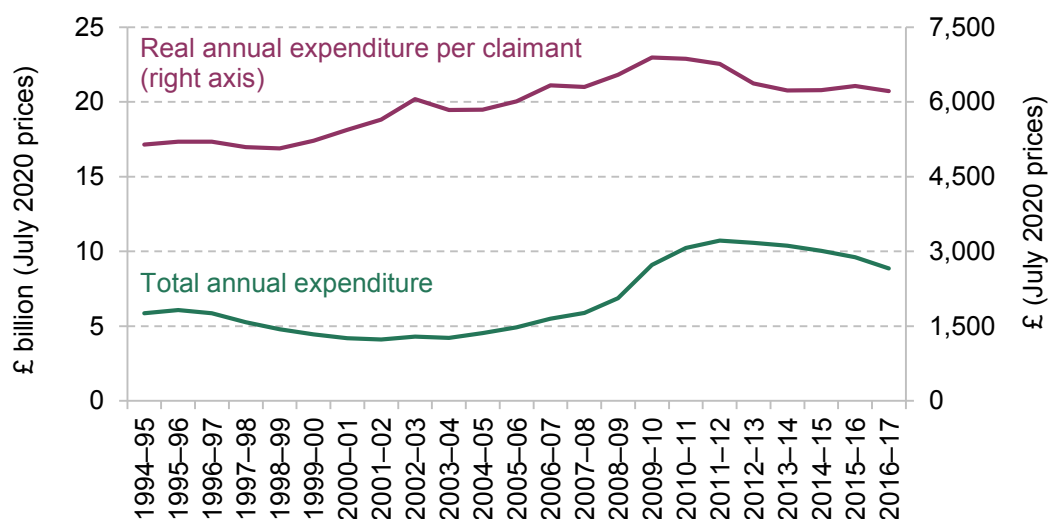
We find that, for poorer privately renting households, *gross* rent has been falling as a share of income. In 1994–95, gross rent made up at least two-thirds of income for around half of these households; by 2018–19, that figure had fallen to a quarter of such households. This implies that their income has grown faster than their gross rent over this period.

Conversely, *net* rent made up a much larger proportion of non-HB income in 2018–19 than it did in 1994–95. For example, in 1994–95, nearly half of poor private renters had a net rent of zero – or, in other words, had their rent fully covered by HB. However, in 2018–19, that share had fallen to just 8%. So while gross rent has been making up a declining share of income for poorer privately renting households, the amount that they actually have to pay themselves has increased markedly. This reflects both the fact that housing benefits have declined relative to income, and also declining worklessness, meaning that more households in the bottom 40% of the income distribution have had their housing benefits (at least partially) means-tested away.

What has the effect of these trends been on HB spending? Figure 8.11 shows real spending on private-rental-sector housing benefits from 1994–95 to 2016–17<sup>27</sup> (in July 2020 prices). Between 1998–99 and 2007–08, expenditure per HB claimant steadily rose as rents increased, but overall spending was roughly constant as the number of claimants declined. In the wake of the Great Recession in 2008–09, total spending increased driven by a rising caseload. Between 2011–12 and 2016–17, a decline in both the number of claimants and per-claimant spending has led to a decline in overall expenditure.

<sup>27</sup> We show spending on housing benefits only up to 2016–17 to avoid complications of the introduction of UC.

**Figure 8.11. Real spending on private-rental-sector housing benefits, overall and per claimant**



Source: Authors' calculations using DWP Benefit Expenditure and Caseload Tables 2020 (<https://www.gov.uk/government/publications/benefit-expenditure-and-caseload-tables-2020>).

## The temporary increase in LHA rates

We now turn to the temporary increase in LHA rates that the government introduced in the wake of the pandemic. As discussed in Box 8.4, in 2013–14 the government disconnected LHA rates from contemporaneous local rents, taking existing LHA rates and variously freezing them, uprating them by 1% or uprating them by CPI inflation from year to year. The consequence is that the set of LHA rates in place before the pandemic were largely based upon rents in the year to September 2011 (which are then used to determine LHA rates in 2012–13).<sup>28</sup>

This point can be seen in Figure 8.12, which compares the 30<sup>th</sup> percentile of local rents with the LHA rates that would have been in place in 2020–21 had the March 2020 temporary increase not been introduced.<sup>29</sup> If LHA rates were perfectly tied to the 30<sup>th</sup> percentile of local rents, all of the BRMAs (shown as purple triangles) would be located on the green line. Instead, many BRMAs – particularly those with

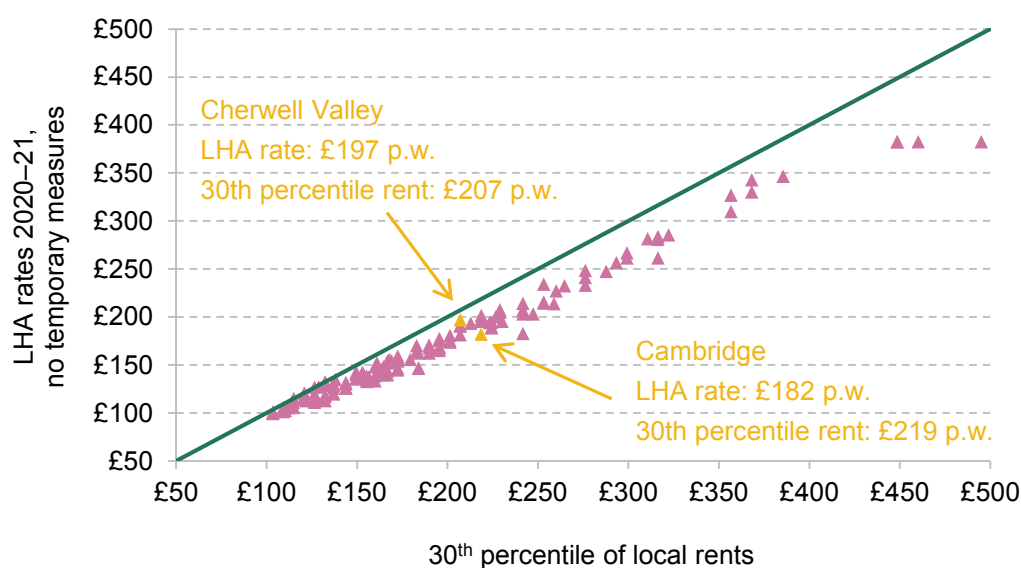
<sup>28</sup> The actual picture is slightly more complicated than this as the government introduced ‘targeted affordability funding’, which increased LHA rates in some Broad Rental Market Areas with fast rent growth.

<sup>29</sup> We do this for three-bedroom properties. For properties of other sizes, the actual rent and LHA levels will of course differ, but the patterns remain broadly similar.

higher rents – are located below the line, meaning that the LHA cap is below the 30<sup>th</sup> percentile of rents. In some cases, this has led to inequities between regions: for example, although the 30<sup>th</sup> percentile of rent in Cambridge is 6% higher than that of Cherwell Valley, its LHA rate (before the temporary HB increase) was around 8% *lower* than that of Cherwell Valley. This is because rent growth since 2011 has been higher in Cambridge than in Cherwell Valley. The effect of the national cap can also clearly be seen on the right of the figure, where the BRMAs whose LHA rates have been capped lie (these include most of Inner London’s BRMAs).

There are several options that the government could consider for LHA rates beyond the coronavirus pandemic. It could **return to pre-crisis LHA rates (uprated with CPI for 2021–22 and onwards) and LHA caps**. This option would imply a return to basing LHA rates on the distribution of rents in 2011.

**Figure 8.12. LHA rates for three-bedroom properties 2020–21 without temporary measures versus 30<sup>th</sup> percentile of rents**



Note: LHA rates and local rents are given in £ per week (2020–21 prices). Each data point represents a Broad Rental Market Area. England only.

Source: 30<sup>th</sup> percentile of local rents, <https://www.gov.uk/government/publications/local-housing-allowance-lha-rates-applicable-from-april-2020-to-march-2021>. Rates before temporary measures downloaded from the same address in March 2020.

Against this, we consider two alternative policies:

- **Making the temporary giveaway permanent:** Keep the LHA rates indexed to the 30<sup>th</sup> percentile of local rents and apply the higher national caps. This would cost the government £1.1 billion a year more than returning to pre-crisis LHA rates (with this amount increasing in line with rents thereafter).
- **Linking LHA rates to the 20<sup>th</sup> percentile of local rents:** This is equivalent to a roughly 9% cut to the 30<sup>th</sup> percentile LHA rates.<sup>30</sup> Relative to returning to pre-crisis plans, this reform would be broadly cost-neutral in the short run (though costs would grow in the longer term if rents continue to rise in real terms).<sup>31</sup> Like making the current giveaway permanent, this policy would also preserve the link between LHAs and contemporaneous local rents going forward, but within a system that is less generous overall than the current giveaway.

The advantage of the two alternative policies is that they both ensure that housing benefit entitlements are linked to current rents in the local area, as opposed to rents in 2011. The second alternative policy does this without any immediate additional cost. However, it is worth noting that if rents rise in real terms, indexing LHA rates to rents rather than the CPI would cost more in the long run (though, in the very long run, allowing support for housing costs to continue to fall relative to the average cost of housing might not prove sustainable). For every 10% that real rents increase by, the second alternative policy would cost the government £1.2 billion more than the pre-COVID policy.

There may, however, be a problem with choosing the 20<sup>th</sup> percentile: if the distribution of properties gets thin, that could lead to big changes. That is, depending on the distribution of the rents, the 20<sup>th</sup> percentile could be a long way below the 30<sup>th</sup> percentile. We estimate that, on average, it is 9% below the 30<sup>th</sup> percentile, but the gap will be larger in some BRMAs. It is also possible it might be

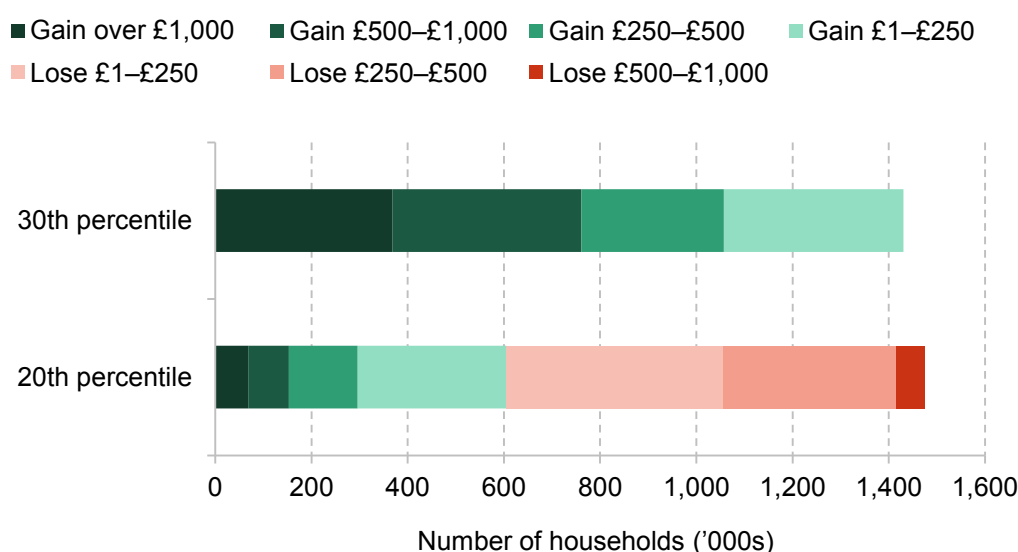
<sup>30</sup> Among private renters who do not claim HB (the basis for LHA rates) in the UK, the 20<sup>th</sup> percentile is approximately 9% lower than the 30<sup>th</sup> percentile. Thus, we describe this 9% cut as ‘the 20<sup>th</sup> percentile’. In different BRMAs or for different household compositions, a 9% cut might be below or above the 20<sup>th</sup> percentile of rents.

<sup>31</sup> In estimating the cost of the various options for LHA rates, we consider the cost to the central government. This means that we do not incorporate the fact that raising LHA rates results in higher UC, which for many local authorities will result in savings on council tax support (CTS). However, in the following figures, we show the impact of reforms on total household income (so this includes any knock-on effects of CTS).

hard to find properties available at the 20<sup>th</sup> percentile (of course, the same might well be true of the 2012–13 30<sup>th</sup> percentile CPI uprated, and certainly will be at some point).<sup>32</sup>

We do not discuss or analyse the possibility of getting rid of national caps in detail. The rationale behind the national caps is to avoid subsidising renting in rich areas. That in itself is not an incoherent policy: there may be a case for HB not to reflect local rents in expensive areas, to avoid subsidising poorer renters living in the most expensive areas. However, there is also a case for HB to reflect contemporary (not 2011) local rents to avoid low-income renters being priced out of certain areas – for example, because those places may have better jobs available or they might rely on low-paid key workers.

**Figure 8.13. Distribution of gains and losses from setting LHA rates to the 20<sup>th</sup> or 30<sup>th</sup> percentile of local rents, relative to pre-crisis plans**



Note: The figure shows the effect of reforms relative to setting LHA rates to the level they would have been at had they not temporarily been increased to the 30<sup>th</sup> percentile.

Source: Authors' calculations using the Family Resources Survey 2018–19 and TAXBEN.

<sup>32</sup> There might also be a concern that relatively cheap accommodation in university towns might be dominated by students, meaning that setting the LHA rates to the 20<sup>th</sup> percentile of rent would lead to the type of rented housing affordable with the maximum HB amount being determined by students' incomes and preferences. The government could choose to avoid this problem by excluding properties rented entirely or mostly by students when calculating the distribution of private rents.

In the following, we show the impact of setting the LHA rates to the 20<sup>th</sup> or 30<sup>th</sup> percentile of local rents, compared with returning the LHA rates to the level they were at before the onset of the crisis.

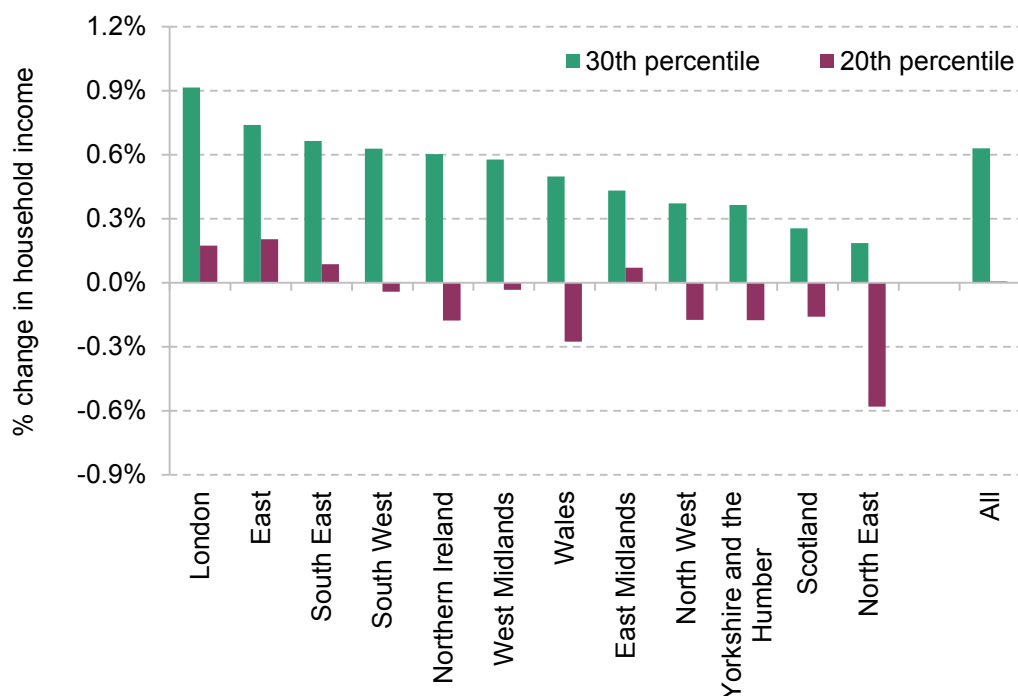
Figure 8.13 shows the number of households that would gain or lose (receive higher or lower HB) for both of these reforms. Not surprisingly, keeping LHA rates at the 30<sup>th</sup> percentile (rather than letting them fall back to their pre-crisis levels, which are never higher than the 30<sup>th</sup> percentile) would raise entitlements, benefiting 1.4 million households.

Setting LHA rates at the 20<sup>th</sup> percentile, however, would create both winners and losers: in broad terms, if you live in an area where rents have grown fast since 2011, your LHA rate is more likely to be below the 20<sup>th</sup> percentile of rents so you gain from the reform; and vice versa for those who live in an area where rents have grown more slowly. We estimate that around 850,000 households would lose out from switching LHA rates to the 20<sup>th</sup> percentile, and 600,000 gain. While the policy is cost-neutral in the short term, there are more losers than winners because those that lose from the policy on average lose £253 per year, while those that gain on average gain £388 (with approximately 60,000 households gaining over £1,000 per year and none losing that much). This simply reflects the fact that there are a small number of BRMAs (mainly in London) whose pre-crisis LHA rates were very far below the 20<sup>th</sup> percentile, and a larger number whose pre-crisis LHA rates were only modestly above.

Given that whether someone wins or loses from the reform depends on whether they live in an area that has seen fast or slow rent growth in recent years, we would expect to see strong regional patterns in the effects of this policy. Figure 8.14 plots the change in average household income for privately renting households under the two scenarios, compared with the policy of returning LHA rates to their pre-crisis levels. Since London and the East have seen fast rent growth since 2011, households in those areas gain from a move to the 20<sup>th</sup> percentile, while most other regions would lose on average. More generally, households in high-rent areas (BRMAs) gain from the switch to the 20<sup>th</sup> percentile, while those in low-rent areas lose out. These patterns confirm that high-rent areas have tended to see faster growth in rent in recent years.

Linking LHA rates to the 30<sup>th</sup> percentile of local rents of course increases incomes among all regions, with a similar regional pattern to the 20<sup>th</sup> percentile. Figure 8A.2

**Figure 8.14. Impact on income of setting LHA rates to the 20<sup>th</sup> and 30<sup>th</sup> percentile of rent (among privately renting households), by region**



Note: Sample is privately renting households. All incomes have been equivalised and are measured before housing costs have been deducted. The figure shows the effect of reforms relative to setting LHA rates to the level they would have been at had they not temporarily been increased to the 30<sup>th</sup> percentile.

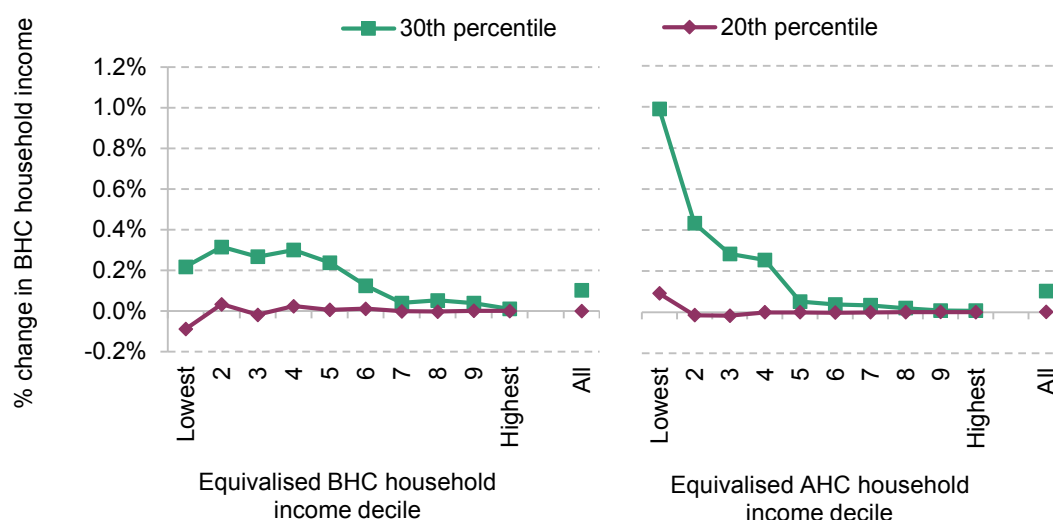
Source: Authors' calculations using the Family Resources Survey 2018–19 and TAXBEN.

(in the online appendix) shows these impacts among all, rather than just privately renting, households.

The distributional patterns of these policies crucially depend upon whether we rank households from poor to rich using income before or after deducting housing costs. This decision changes where in the distribution private renters in high-rent areas appear. If we use before-housing-costs incomes, private renters tend to be further up the income distribution, but once we deduct their (comparatively high) rent, they appear further down.

Figure 8.15 shows the effects of setting LHA rates to the 20<sup>th</sup> and 30<sup>th</sup> percentiles of local rent on household incomes of all households, regardless of their tenure, relative to returning LHA rates to their pre-crisis levels. We examine these effects across the distribution when we rank households with before- (left panel; BHC) or after- (right panel; AHC) housing-costs incomes.

**Figure 8.15. Impact on income of setting LHA rates to the 20<sup>th</sup> and 30<sup>th</sup> percentile of rent, by household income decile**



Note: All incomes have been equivalised and are measured before housing costs have been deducted. The base LHA rates are the 2020 LHA rates had they not temporarily been increased to the 30<sup>th</sup> percentile. Income deciles are calculated using net BHC income (left panel) or net AHC income (right panel) in the base scenario.

Source: Authors' calculations using the Family Resources Survey 2018–19 and TAXBEN.

What these results show is that switching to the 20<sup>th</sup> percentile of local rents has fairly muted distributional consequences. To the extent that there are distributional patterns, it is that the policy boosts incomes among those who have low AHC incomes but are slightly further up the BHC income distribution.<sup>33</sup>

We observe the same patterns if we just look at private renters (see Figure 8A.3 in the online appendix), though the average absolute impacts are of course larger. For example, private renters in the bottom decile of BHC income would lose 0.5% on average, while private renters at the bottom of the AHC income distribution would gain 0.2%. Linking LHA rates to the 30<sup>th</sup> percentile of local rents is more clearly progressive, with the lowest-income households experiencing the largest increase in net household income.

<sup>33</sup> This is because those who live in high-rent areas – who have high housing costs – tend to gain from the policy (see Figure 8A.2 in the online appendix), and if we measure incomes deducting housing costs, such households move down the income distribution. Conversely, the policy reduces entitlements among those who have low before-housing-costs income and slightly higher after-housing-costs income.

In sum, the LHA rate system that was in place prior to April 2020 has disconnected LHA rates from actual rent in an odd way. As the government thinks ahead in terms of setting the LHA rates for 2021–22, it faces a variety of options. If it goes back to pre-crisis LHA rates (and national caps), and continues to uprate them in line with the CPI, they will remain tied to the 2011 rents. This is difficult, if not impossible, to justify and will become increasingly bizarre over time.

Alternatively, it could just keep the 2020–21 rates (30<sup>th</sup> percentile) and uprate these in line with the CPI from April 2021–22 on. This would cost £1.1 billion in 2021–22 (in 2020–21 prices). However, although this would restore the connection between LHA rates and rent, it just ‘resets the clock’: future differences in rent growth across the country would cause the inequity in LHA rates relative to local rents to re-emerge.

To avoid such a disconnection, the government should consider re-linking LHA rates to current local rents (and maintaining this link going forward). It can do that in a way that – at least in the short run – does not result in any increase in costs. This, of course, has particular distributional implications (as discussed), but it is worth noting that these are only the inverse of the distributional implications of the odd policy since 2012 of allowing LHA rates to drift from local rents.

## 8.6 Conclusion

The government faces a number of choices for each of the three policies we have discussed: an increase to the standard allowance of universal credit, the suspension of the ‘minimum income floor’ and an increase to local housing allowances. One option which we have not covered – but is equally applicable to all three policies – is to grandfather in current claimants on the temporary measures and put new claimants on the pre-crisis scheme (or some other, less expensive, alternative). This approach perhaps has the attractive feature of ensuring that no households see overnight drops in their incomes between March and April 2021. But it would create perverse incentives. If a family ceases to claim UC, but later on begins a new claim, it would receive a lower amount (whether because of the standard allowance, the MIF or its housing support) than if it had been continuously claiming. Naturally, this disincentivises households to stop claiming UC (including by increasing their earnings) in the first place. And it would arguably be unfair to have two otherwise-identical households receiving substantially different amounts of benefits into the

future purely because one began claiming just before the end of 2020–21 and the other right at the start of 2021–22.

More generally when considering the future of these reforms, the government faces the standard trade-offs that any government faces in designing welfare policy: it can make the system more extensive, boosting incomes among poorer families (and those made poor by COVID), but at a cost to the exchequer and with the effect of weakening work incentives. Keeping the temporary measures in place would cost around £9 billion a year, and would boost the incomes of UC recipients, who are of course among the poorest in the country. Given the uncertain state of the economy and the labour market, and given the low levels of benefits for many in the UK relative to international standards, there may well be a case for this. But it would weaken work incentives and, in the case of the MIF, inappropriately encourage seemingly low-value self-employment and, potentially, fraud.

The government could, of course, also simply return to pre-crisis policy. If so, then early and clear communication to those likely to be affected is important to ensure that the drop in income that would occur for many does not come as an unpleasant surprise.

But beyond these standard trade-offs that governments face when making welfare policy, for two of the three measures we consider there are more subtle reforms available which could rationalise the system, regardless of its overall size. LHA rates could be linked to current rents, rather than 2011 rents, removing the unfairness and inappropriateness of families in some high-rent areas being able to get less HB than those in low-rent ones. And the MIF could be made more robust to volatile incomes, ensuring that the benefits system treats those with steady and volatile income similarly.

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# Abbreviations

AHC	after housing costs
AME	annually managed expenditure
APF	Asset Purchase Facility
ave.	average
AWE	average weekly earnings
bal.	balance
BBLS	Bounce Back Loan Scheme
BCC	British Chambers of Commerce
BCR	benefit–cost ratio
BEIS	Department for Business, Energy and Industrial Strategy
BHC	before housing costs
BICS	Business Impact of COVID-19 Survey
bn	billion
BoE	Bank of England
BoJ	Bank of Japan
BOM	Border Operating Model
bps	basis points
BRMA	Broad Rental Market Area
CBI	Confederation of British Industry
CBILS	Coronavirus Business Interruption Loan Scheme
CDEL	capital departmental expenditure limits
CEP	Centre for Economic Performance
CEPR	Centre for Economic Policy Research
CJRS	Coronavirus Job Retention Scheme
CLBILS	Coronavirus Large Business Interruption Loan Scheme
CPB	Netherlands Bureau for Economic Policy Analysis
CPI	Consumer Prices Index

CPIH	Consumer Prices Index including owner-occupiers' housing costs
CTS	council tax support
Defra	Department for Environment, Food and Rural Affairs
DEL	departmental expenditure limits
DfE	Department for Education
DfID	Department for International Development
DfT	Department for Transport
DHSC	Department of Health and Social Care
DIY	do-it-yourself
DMO	Debt Management Office
DWP	Department for Work and Pensions
EC	European Commission
ECB	European Central Bank
ECJ	European Court of Justice
EEC	European Economic Community
EFO	Economic and Fiscal Outlook
ERDF	European Regional Development Fund
ESA	employment and support allowance
ESF	European Social Fund
ESRC	Economic and Social Research Council
EU	European Union
FCA	Financial Conduct Authority
FDI	foreign direct investment
Fed	Federal Reserve Bank
FILP	Fiscal Investment and Loan Programme
FRS	Family Resources Survey
FSR	Fiscal Sustainability Report
FTA	free trade agreement
FTE	full-time-equivalent
G7	Group of Seven countries: Canada, France, Germany, Italy, Japan, UK, US

GDP	gross domestic product
GfK	Growth from Knowledge
GNI	gross national income
GVA	gross value added
HB	housing benefit
HBAI	Households Below Average Incomes
HM	Her Majesty's
HMRC	Her Majesty's Revenue and Customs
HMSO	Her Majesty's Stationery Office
HMT	Her Majesty's Treasury
ICT	information and communication technology
ICU	intensive care unit
IFS	Institute for Fiscal Studies
IMD	Index of Multiple Deprivation
IMF	International Monetary Fund
ISER	Institute for Social and Economic Research
IT	information technology
JHU	Johns Hopkins University
JSA	jobseeker's allowance
LA	local authority
LEP	local enterprise partnership
LFS	Labour Force Survey
LHA	local housing allowance
LHS	left-hand side
LSOA	Lower Layer Super Output Area
m	million
M	month
MFN	most-favoured nation
MHCLG	Ministry of Housing, Communities and Local Government
MIF	minimum income floor
MM	month on month

MPC	Monetary Policy Committee
NAIRU	non-accelerating inflation rate of unemployment
NBER	National Bureau of Economic Research
NCI	Now-Casting Index
NHS	National Health Service
NICs	National Insurance contributions
OBR	Office for Budget Responsibility
ODA	official development assistance
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics
p.a.	per annum
PAYE	Pay-As-You-Earn
PESA	Public Expenditure Statistical Analyses
PMI	Purchasing Managers' Index
PPE	personal protective equipment
ppt	percentage point(s)
PSCE	public sector current expenditure
PSGI	public sector gross investment
PSNB	public sector net borrowing
PSNI	public sector net investment
p.w.	per week
Q	quarter
QE	quantitative easing
QQ	quarter on quarter
R&D	research and development
RDEL	resource departmental expenditure limits
RHS	right-hand side
RICS	Royal Institution of Chartered Surveyors
RPI	Retail Prices Index
RRF	Recovery and Resilience Facility
SAAR	seasonally adjusted and annualised rate

SAGE	Scientific Advisory Group for Emergencies
SD	standard deviation
SEISS	Self-Employment Income Support Scheme
SEK	Swedish krona
SIC	Standard Industrial Classification
SNB	Swiss National Bank
SPI	Survey of Personal Incomes
TAF	targeted affordability funding
TAXBEN	the IFS tax and benefit microsimulation model
TDEL	total departmental expenditure limits
TfE	tariff-equivalent
TfL	Transport for London
TME	total managed expenditure
UC	universal credit
UK	United Kingdom
UKHLS	UK Household Longitudinal Study
UKRI	UK Research and Innovation
UKSPF	UK Shared Prosperity Fund
UN	United Nations
US	United States
USoc	Understanding Society
VAT	value added tax
vs	versus
WHO	World Health Organisation
WTC	working tax credit
WTO	World Trade Organisation
YY	year on year

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