

Doing more of what it takes

Next steps in the economic response to coronavirus

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April 2020



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Contents

Acknowledgements	2
Executive Summary	4
Section 1	
Introduction	15
Section 2	
The economic impact of coronavirus	17
Section 3	
The public finance impact of coronavirus	33
Section 4	
Implications for policy	51

Executive Summary

The coronavirus pandemic is the most severe and acute public health emergency that the UK and most other advanced countries have faced in a century. In response to this public health crisis, the Government has taken two momentous economic decisions.

- First, in an effort to save lives and contain the spread of the virus, the Government has closed down large sections of the economy by outlawing all public gatherings, closing schools, and putting in place a range of social distancing measures. These include requiring the closure of pubs, restaurants, retail shops and any non-essential businesses whose staff cannot work from home or at a safe distance from each other and from their customers. These public health restrictions are necessary, but have also delivered a shock to economic activity unprecedented in its speed and severity. New applications for Universal Credit reached almost 1.2 million in the past three weeks, an almost 600 per cent increase on the level of claims a year previously. Property sales have fallen by 70 per cent since the beginning of March. Surveys suggest that 52 per cent of businesses are planning to furlough staff as part of the Government's Coronavirus Job Retention Scheme (JRS). And visits to retail (excluding grocery shops and pharmacies) and leisure activity sites have fallen by 82 per cent.
- Second, the Government has socialised much of the economic costs that follow from its first decision through

a package of fiscal policy measures unparalleled in size and scope. As well as increased healthcare spending, the Government has extended £400 billion (20 per cent of GDP) in financial support to firms and individuals, to mitigate the disruption to their operations and incomes. This, the largest peacetime fiscal expansion in British history, includes tax reliefs and payment holidays, salary support for furloughed workers, grants for the self-employed, increases in social security benefits, grants and guaranteed loans to businesses, and financial bailouts for troubled sectors. Monetary policy has complemented and enabled this with the Bank of England cutting interest rates to all-time lows, extending its quantitative easing (QE) programme at its fastest rate ever, subsidising credit to small and medium enterprises, resuming and expanding purchases of government debt and corporate bonds and commercial paper, and directly financing the deficit.

Both of these decisions are the right thing to do, but they leave the Government with a significant challenge in understanding and actively managing the relationships and trade-offs between its public health, economic, and fiscal objectives. This task is made all the more difficult by the fact that the duration of the coronavirus outbreak remains unknown. The economic and fiscal contexts for, and management of, these complex and interrelated policy challenges are the focus for this paper.

Despite encouraging signs about the effectiveness of social distancing measures in reducing the transmission of the virus, considerable uncertainty remains over the duration of the outbreak and therefore the scale of its impact on the economy and the public finances. In the absence of a proven vaccine, reliable antibody test, and rigorous testing and tracing regime for the virus, it is unclear how long social distancing measures (which account for the bulk the economic losses from viral outbreaks) will need to be in place. Some countries have begun to set out timetables for easing their social-distancing measures. But history tells us that some epidemics can last for many

months and even years, with successive waves of transmission requiring repeated tightening and loosening of public health restrictions.

The Government's economic and fiscal policies therefore need to be robust to a range of scenarios for the duration of the coronavirus pandemic. To inform ongoing considerations about the interaction between policies aimed at protecting public health, supporting the economy, and safeguarding the public finances, this paper considers three scenarios for the duration of social distancing measures:

- A three-month scenario, drawing on encouraging signs from Asia and elsewhere in Europe about the effectiveness of social distancing, in conjunction with widespread testing, in stopping transmission of the virus. This scenario is broadly consistent with the Office for Budget Responsibility's *Coronavirus Reference Scenario* published on 14 April;
- A six-month scenario, based on warnings from experts about the need for social distancing to be in place long enough to prevent a second peak of cases, especially if an effective vaccine or antibody test takes time to be developed; and,
- A 12-month scenario, based on historical experience in other major epidemics such as Spanish flu and Ebola, in which successive waves of transmission led to repeated tightening and loosening of social distancing restrictions over several years.

This scenario analysis shows that depending on the duration of social distancing, economic output this year could contract by between one-tenth and one-quarter. Social distancing measures are estimated to reduce economic activity initially by around one-third. This is caused by workers being furloughed or made redundant; firms scaling back or shuttering operations; and households cutting back on consumption due to a combination of falls in incomes, higher precautionary savings, and the closure of hospitality and retail outlets. This is consistent with both domestic and international evidence on the decline in economic activity and consumption since social-distancing measures were

imposed, as well as survey data on firms' planned reductions in workforces, and estimates of the proportion of workers unable to work from home. The resulting fall in GDP in 2020 would be 10 per cent in the three-month scenario, 20 per cent in the six-month scenario, and 24 per cent in the 12-month scenario. Annual falls in GDP of this magnitude have not occurred in the UK for over three centuries.

The longer social distancing measures need to be in place, the longer it will take for economic activity to return to close to its pre-outbreak levels, due to scarring effects. These effects arise for a variety of reasons. Some firms will fail, as their pre-outbreak order books are exhausted and cash reserves run out, some workers will become detached from their employers and discouraged about their future employment prospects, and some surviving firms will take time to reconnect with domestic and global supply chains and markets. That said, the shock currently hitting the economy should – for the most part at least – not lead to wholesale change to its structure. Firms that were viable prior to the coronavirus crisis should be viable in the future if they can be kept financially whole. This is in contrast to other recessions – such as the financial crisis – that prompted a rebalancing of the economy away from affected sectors. Policies designed to protect the economy from the temporary shock it is experiencing will, therefore, increase the possibility of a rapid recovery. Therefore, in our three-month scenario, the economy experiences something approximating a V-shaped recovery in the third quarter of 2020 and loses only 3 per cent of output by the middle of the decade. However, if the outbreak lasts for six or 12 months, then the recovery of real GDP to pre-outbreak levels could take between two and five years, and the economy could lose between 5 and 7 per cent of output over the long term.

The reduction in economic activity is accompanied by a large fall in active employment – defined as those in work and not furloughed. The falls in employment in 2020 are 8 per cent and 17 per cent under the three- and 12-month scenarios, respectively. The Coronavirus Job Retention Scheme should help to substantially reduce the number of people who become unemployed and (in many cases) rely on Universal Credit (UC) as

their source of income. Early business survey evidence suggests take-up of the scheme is high; four-fifths of those losing active employment could be moving onto the retention scheme rather than (or in some cases, in addition to) claiming UC. But the Government is likely to close the retention scheme once major health restrictions are lifted. At this point in our scenarios, many of those on the JRS will become officially unemployed as economic activity will still be below its pre-crisis level. For this reason, unemployment peaks at almost 2 million (5.4 per cent) under the three-month scenario but rises to almost 5 million (14.1 per cent) in the six-month scenario and over 7 million (20.8 per cent) in the 12-month scenario. The unemployment rate in the latter two scenarios exceeds its peak in the 1980s and 1990s recessions, and would lead to huge social as well as economic consequences.

Inflation is assumed to remain broadly stable in all three scenarios. The near-term path of inflation will be determined by the balance between artificially constrained supply and demand for goods and services, as well as between the supply and demand for liquidity, both of which are rising rapidly. Medium-term inflation expectations will be dictated by perceptions of the Bank of England's commitment to its 2 per cent target in the face of other potential pressures on its mandate. There are clearly risks in both directions but in the absence of a clear basis on which to model the interplay between these factors, inflation is assumed to remain close to its target; this is also consistent with experience from past epidemics.

Interest rates are assumed to follow the path implied by the current gilt yield curve, which has fallen by 40 basis points since the March 2020 Budget. As with inflation, it is difficult to judge whether a longer outbreak would cause gilt yields to fall further as investors seek a safe haven from mounting economy-wide risks, or begin to rise as investors start to question the Government's solvency. Nonetheless, as discussed below, the potential for significant rises in inflation or interest rates poses challenges to the sustainability of the Government's economic strategy, especially if the outbreak lasts longer than a few months.

The disruption to economic activity during and in the wake of the outbreak is likely to take the heaviest toll on younger workers and those on the lowest incomes, even taking account of policies announced by the Chancellor in recent weeks. Young people tend to be lower paid, have less in savings, are less likely to be able to work from home, and work disproportionately in sectors that are losing jobs the fastest. Those just leaving education are entering a jobs market with few vacancies. Less than one-in-ten low earners say they are able to work from home, and four-in-five social housing tenants in employment either work in sectors directly affected by social distancing, have jobs that cannot be performed from home, or are caring for school-aged children. The sluggish living standards recovery over the past decade has left those on lower incomes with significantly less in savings than they had prior to the 2008 financial crisis, with nearly 60 per cent of those on low-to-middle incomes reporting having no savings at all, up from just over 40 per cent in 2007.

The combined effect of the Government's twin decisions to dramatically curtail economic activity through necessary social distancing measures and socialise a large proportion of the resulting losses could put the public finances under the kind of pressures unknown outside of wartime. Falling employment, consumption and profits, coupled with tax breaks, payment holidays, and fall offs in tax compliance, will significantly reduce government revenues. Rising healthcare costs, increased claims for social security benefits and spending on the new salary support schemes for individuals and guaranteed loans and grants for firms will push outgoings to unprecedentedly high levels in our 12-month scenario.

The total fiscal costs of the coronavirus outbreak can be attributed roughly evenly to the economic downturn and to the Government's policy response, with public sector net borrowing reaching double-digit proportions of GDP in all three scenarios and historic highs in the six and 12-month scenarios. Even where social distancing measures last just three months, borrowing would rise above the 10 per cent of GDP reached in 2009 at the peak of the financial crisis, while a six-month period of social

distancing would require borrowing of 22 per cent of GDP this year. Both would represent a level of borrowing not seen since the end of the Second World War. A 12-month period with social-distancing measures in place would require the Government to borrow 38 per cent of GDP this year - more than the UK has borrowed in any single year its modern history. Borrowing falls thereafter, though, as public health restrictions are lifted, financial support is withdrawn, and the economy recovers. However, in all three scenarios, the Government is left with a persistent deficit of between 2 and 6 per cent of GDP by the middle of the decade.

Debt rises above 100 per cent of GDP in all three scenarios for the first time since the 1960s. In the three-month scenario, public sector net debt peaks at 106 per cent of GDP. Debt peaks at 129 per cent of GDP in the six-month scenario, higher than any other advanced economy apart from Italy and Japan. Under the 12-month scenario debt reaches 167 per cent of GDP, its highest level since the early 1950s. Debt levels peak this year in the three- and six-month scenarios, but continue to rise until 2021-22 under the 12-month scenario as the economy takes longer to recover from the scarring effects of the outbreak.

The Government also faces an extraordinary financing requirement this year, of 16 per cent of GDP in the three-month scenario, 27 per cent of GDP in the six-month scenario, and over 40 per cent of GDP in the 12-month scenario. Such financing requirements are the result of a combination of three factors: the borrowing required to finance the yawning government deficit over the coming months; the additional cash needed to fund various Bank of England Schemes, tax holidays and calls on government guarantees; and a spike in the redemption of gilts issued at the peak of the financial crisis, which had an average maturity of 14 years.

Despite a more than doubling of the debt-to-GDP ratio in the most extreme scenarios, the proportion of revenue devoted to paying debt interest actually remains at or close to historic lows. This is because of the further fall in gilt yields, alongside continued low inflation keeping the cost of index-linked gilts

under control. However, if there was a significant rise in either inflation or interest rates on the Government's much-elevated debt stock, this proportion could increase significantly more than double, posing a significant challenge to long-term fiscal sustainability.

All of these scenarios present enormous challenges and difficult choices for policy makers. But it is important to draw the right lessons about how to manage them. Much of the current debate is focused on a supposedly stark trade-off between public health and economic policy objectives. In practice, the relationship between the two is more complex. Easing social distancing measures prematurely could lead not only to more deaths but also to an even stricter and longer-lasting restrictions later. As our scenarios show, this would come at an even higher economic and fiscal price. And even if social distancing measures were lifted tomorrow, workers and firms are likely to be wary about returning to jobs and reopening businesses if they believe there is still significant risk to the health of their employees or customers.

This does not mean that policy makers do not have to manage real tensions between competing objectives, which become starker the longer the outbreak continues. However, changes can be made to both microeconomic and macroeconomic policies which can help to alleviate these tensions, buy time for public health professionals to contain and eradicate the virus, and provide the Government with a sustainable exit from these exceptional policy interventions.

At the microeconomic policy level, some of the tensions between public health, economic, and fiscal policy objectives can be mitigated by refining specific elements of the Government's policy response. These include measures which help support and encourage safe economic activity in the near-term, and prevent the cost of state support from becoming a burden on the economic recovery once public health restrictions are lifted. The Government should:

- Extend the scope of the Job Retention Scheme to allow recipients to engage in safe part-time work rather than

requiring them to be economically inactive;

- Develop specific public health guidelines for individual sectors that give businesses and workers greater clarity about what activities can safely take place while social distancing measures remain in force;
- Make government-guaranteed loans more attractive to businesses, supportive of economic activity in the near term, and less of a drag on the economic recovery in the medium term by:
 - Allowing firms to deduct from the principal of the loan any expenditure undertaken to adapt business models such that they can safely resume some level of production;
 - Making future business loan repayments contingent on the lifting of public health restrictions and the pace of recovery in firms' incomes; and,
 - Converting some proportion of the principal into a grant for firms that rehire their workforces once social-distancing restrictions cease to constrain their activity, but retaining a proportion of the collateral of any firm that repays its loan while laying off workers.

The potential scale of the rise in unemployment if the crisis were to last more than a few months means that new active labour market policies will be essential. Indeed, although unemployment will fall as the economy recovers, it tends to do so more slowly than other indicators, leading to a risk that some may experience a sustained period out of work and suffer from 'scarring' effects on their future employment and earnings prospects. Given the very low rate of unemployment in recent years, help for the out of work has understandably slipped down the Government's list of policy and operational priorities. But this will need to change. Measures that can help to minimise the level, duration, and scarring effects of unemployment include: a return to a strong focus on job-search support for all benefit claimants, including in the earliest phases of a claim (this will require more Jobcentre Plus staff given their numbers have fallen by almost one-third since 2010); an expanded offer to

unemployed claimants, including training, advice and guidance; and job guarantees delivered via wage subsidies, targeted at young unemployed people.

At the macroeconomic policy level, the Bank of England can temporarily alleviate some of the significant pressure that will remain on the public finances during the period in which social distancing measures remain in place. It can do this by supporting the continued orderly function of the gilt market through its QE operations, being prepared to act as market maker of last resort in gilt markets, and providing temporary liquidity directly to the Government in the event that it cannot fully finance its in-year deficits from the primary market.

To prevent this temporary liquidity support from raising concerns that fiscal policy makers have taken control of monetary policy – one form of what is sometimes referred to as fiscal dominance – direct monetary financing should take place within a transparent operating framework in which the support:

- Is provided solely to meet the Government's temporary financing needs arising as a result of the outbreak,
- Can be withdrawn unilaterally by either side rather than requiring mutual agreement; and,
- Is matched by a commitment from the Government to returning the market-based financing as soon as conditions allow.

While the Bank can alleviate some pressures on the public finances in the near term, there is little monetary policy can or should do to help the Government cope with the cost of any structural deficit or elevated stock of debt once the outbreak has run its course. To obviate any suggestion of fiscal dominance of monetary policy, the Government needs to commit to restoring fiscal sustainability once the economy is in recovery. This can be done by setting out a revised fiscal framework that commits the Government, once the recovery has been secured, to returning the current budget to a neutral setting, stabilising the debt interest burden at manageable levels, and improving public sector net worth.

This commitment would be underscored by the announcement of specific measures that help to deliver these objectives while sharing the burden of adjustment across society, such as a tax surcharge on higher earners who were able to continue working full time during the crisis.

Section 1

Introduction

The coronavirus outbreak and social distancing measures required to contain its spread have led to an immediate and unprecedented shock to the UK and global economy. Governments have announced fiscal and monetary policy packages unparalleled in scale and scope to shield individuals and businesses from the full financial impact of this shock. These have acted to socialise a large proportion of the losses incurred, and to spread the costs over time. Even taking account of the support offered by the Government, the outbreak will impose a significant financial cost on firms and households, with the heaviest burden being borne by the young and lower earners. And both the contraction in economic activity and the Government's policy response are likely to put the public finances under the kinds of pressures unknown outside of wartime.

However, there remains considerable uncertainty about how big an impact the coronavirus outbreak will have on the economy and public finances. Much depends on how long public health restrictions need to remain in place. This, in turn, depends on the likelihood of developing a reliable testing and tracing regime, antibody test, or vaccine. In the absence of clear and definitive evidence of progress on these, policy makers need to think about how to manage what could be a protracted period of disruption to lives, livelihoods, and finances.

To help inform discussions about how to manage the economic and fiscal consequences of the public health restrictions necessary to combat the virus, this paper examines how the economy and public finances might be affected by outbreaks of different durations, and discusses the implications for economic policy makers. Our assessment is based on three different scenarios for the duration of outbreak, in which social distancing measures need to be in place for three, six, and 12 months, respectively.

The remaining sections of this report are set out as follows:

- **Section 2** examines the impact of the coronavirus outbreak and resulting social distancing measures on the economy;

- **Section 3** considers the impact of both the resulting disruption to economic activity and the Government's policy response on the public finances; and,
- **Section 4** explores the implications of these outcomes for the conduct economic policy during and after the outbreak.

Section 2

The economic impact of coronavirus

The bulk of the economic cost of viral outbreaks results from the social distancing required to contain their spread. Evidence from the UK and around the world suggests that economic activity has already fallen by around one-third as a result of lockdown measures. Depending on whether these public health restrictions remain in place for three, six, or 12 months, annual output this year could shrink by one-tenth, one-fifth, or one-quarter – economic downturns unprecedented in peacetime. Even after taking account of additional government support being provided, these economic contractions are likely to take the heaviest toll on younger workers and those on the lowest incomes. These groups are less equipped to cope with this shock than they were before the financial crisis.

The longer the lockdown lasts, the more people are likely to find themselves without a job to return to when it ends, with unemployment reaching 5 per cent under a three-month lockdown, 14 per cent under a six-month lockdown, and 21 per cent under a 12-month lockdown. Scarring effects from longer periods of inactivity act as a drag on the recovery once public health restrictions are lifted, with the economy taking six months to recover to pre-output levels under a three-month lockdown scenario but five years to recover from a 12-month lockdown. Inflation and interest rates are assumed to remain low and stable in all three scenarios, but increases in either represent a key risk to both the economic and fiscal outlooks.

Sources of economic disruption from coronavirus

Historical and contemporary experience shows that viral epidemics can exact a heavy toll not only on human lives but also livelihoods (Table 1). There are three broad channels through which coronavirus can reduce economic output. First, there are the direct economic losses from additional mortality and morbidity resulting directly from the virus. Second, there is the first-round effect of social distancing measures designed to contain the spread of the virus. These reduce the productive capacity of the economy

by reducing the effective labour force, and suppress the level of potential demand by preventing people from consuming goods and services. Third, there are the second-round effects – of falling incomes, heightened uncertainty, and disruption to labour and product markets – on investment, consumption, and trade, which further reduce economic activity in the near and, potentially, longer term.

TABLE 1: The human and economic costs of past viral outbreaks have been large

Epidemiological and economic impacts of past viral outbreaks

Epidemic	No. of Countries ¹	Duration in months	Number of cases	Number of deaths	Fatality rate	Peak GDP Loss
Spanish Flu (1918-1919)	187	24	500 million	17-50 million	3-10%	6-13% ²
SARS (2003)	8	6	8,096	774	10%	0.5-1% ³
Ebola (2014-2016)	3	26	28,616	11,310	40%	5-20% ⁴
Coronavirus (2020 -)	187		1.8 million ⁵	112,000 ⁵	3-4% ⁵	

NOTES: 1 Number of countries reporting more than 10 cases. 2 In Canada, UK, and US. 3 In Guinea, Liberia, and Sierra Leone. 4 In China, Hong Kong, Singapore, and Taiwan. 5 WHO estimates on 14 April 2020.

SOURCE: WHO; IMF; World Bank.

The potential economic impact of coronavirus will, in large part, be a function of the strictness and duration of the public health restrictions required to contain its spread. Studies of past viral outbreaks found that only 10 to 20 per cent of the near-term economic losses associated with the virus were due to additional deaths and illness, the first of the three channels discussed above.¹ 80 to 90 per cent of economic losses arise from the direct or indirect disruption to economic activity resulting from mandatory or voluntary social distancing to avoid transmission (Figure 1). Coronavirus is less deadly to those infected than past viruses such as Spanish flu, SARS, or Ebola, were. But despite this fact, the global spread of coronavirus,² and the strictness of public health restrictions imposed by most countries in response,³ suggest that peak output losses from this pandemic could be at least as great as the double-digit GDP losses countries experienced during the more severe of these past epidemics.

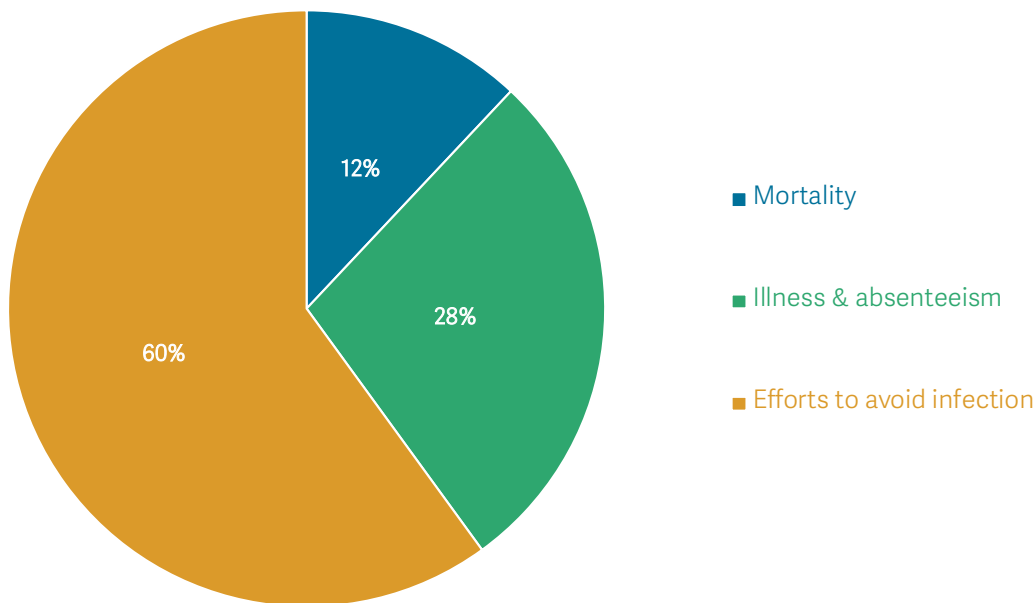
¹ See: R Hughes, [Safeguarding governments' financial health during coronavirus: What can policymakers learn from past viral outbreaks?](#), Resolution Foundation, March 2020.

² At the time of writing there have been over 1.7 million reported cases and over 100,000 deaths across 185 countries.

³ Oxford University, [Oxford COVID-19 Government Response Tracker](#), April 2020.

FIGURE 1: Most economic costs of viral outbreaks come from containment efforts

Sources of economic losses from pandemic flu



SOURCE: M Brahmabhatt & A Dutta, On SARS-type Economic Effects during Infectious Disease Outbreaks, Policy Research Working Paper 4466, World Bank, January 2008.

Real-time data suggests that there has already been a dramatic fall in economic activity

The UK imposed relatively strict social distancing measures on 23 March in an attempt to contain the number of coronavirus cases requiring hospitalisation below the capacity of the NHS, which has been expanding in parallel. While complete Q2 GDP data will not be available until late June, real-time indicators suggest that these restrictions have already led to a dramatic reduction in economic activity since the middle of March. Specifically:

- In the labour market, the latest reported figures show that over 1.2 million people have claimed Universal Credit (UC) in the three weeks since strict social distancing measures were put in place – almost a 600 hundred per cent increase on the same period a year ago.⁴ Business surveys suggest that one-fifth of firms intend to furlough their entire workforce, with a further 17 per cent planning to furlough more than three-quarters of their staff when the Government’s Coronavirus Job Retention Scheme (JRS) opens at the end of April.⁵ Taken together, these suggest that more than one-third of the private sector labour force could be off work by the end of this month.

⁴ See: J Leslie, *The economic effects of coronavirus in the UK*, Resolution Foundation, April 2020.

⁵ See: British Chambers of Commerce, *BCC Coronavirus Business Impact Tracker: Businesses not yet successfully accessing government loan and grant schemes*, April 2020.

- In the manufacturing, service, and retail sectors, the IHS Markit UK purchasing managers' composite index fell from 53 in February to 37 in March, its lowest level recorded since the survey began in 1996. Online restaurant bookings have fallen to zero.⁶ And footfall in UK retail outlets is down by 90 per cent since the beginning of March.⁷
- In the infrastructure sector, electricity demand has fallen by between 15 and 25 per cent since the start of March, despite a rise in domestic consumption as more people stay at home.⁸ And the number of people taking bus and train journeys has collapsed to little more than 20 per cent of normal levels at this time of year.⁹
- In the property and financial markets, the number of new property sales agreed has fallen by 70 per cent since the beginning of March, according to data from one major online listing site.¹⁰ The FTSE 100 has fallen by more than 20 per cent since January, its biggest quarterly fall in three decades.¹¹

Experience from past epidemics suggests double-digit annual falls in output are possible

Historical experience of other major viral epidemics suggests that they can lead to double-digit falls in annual output. Figure 2 shows the path of GDP for seven countries hard-hit by three major viral outbreaks over the past century (Spanish flu in 1918-1920, SARS in 2003, and Ebola in 2014-2016). Among these countries, the average fall in real GDP in the first year following the outbreak was 7 per cent, with the largest annual real GDP fall being the 20 per cent contraction in GDP in Sierra Leone in the first year of the Ebola outbreak in 2014. Rapid, or V-shaped, recoveries have also not been the norm following outbreaks, except in the case of SARS in East Asia where the outbreak was contained to five countries and over a few months. The average time it took for real output to return to pre-outbreak levels in all seven countries hit hardest by these viral outbreaks was three years, with some countries taking as long as a decade to recover.¹²

⁶ IHS Markit, *Purchasing Managers' Index*, April 2020.

⁷ Springboard, *Benchmark Daily footfall - UK, USA, Sweden, Italy*, April 2020.

⁸ J Leslie, *The economic effects of coronavirus in the UK*, Resolution Foundation, April 2020.

⁹ The Observer, *The big shutdown: tracking Britain's Covid-19 slump in real time*, April 2020.

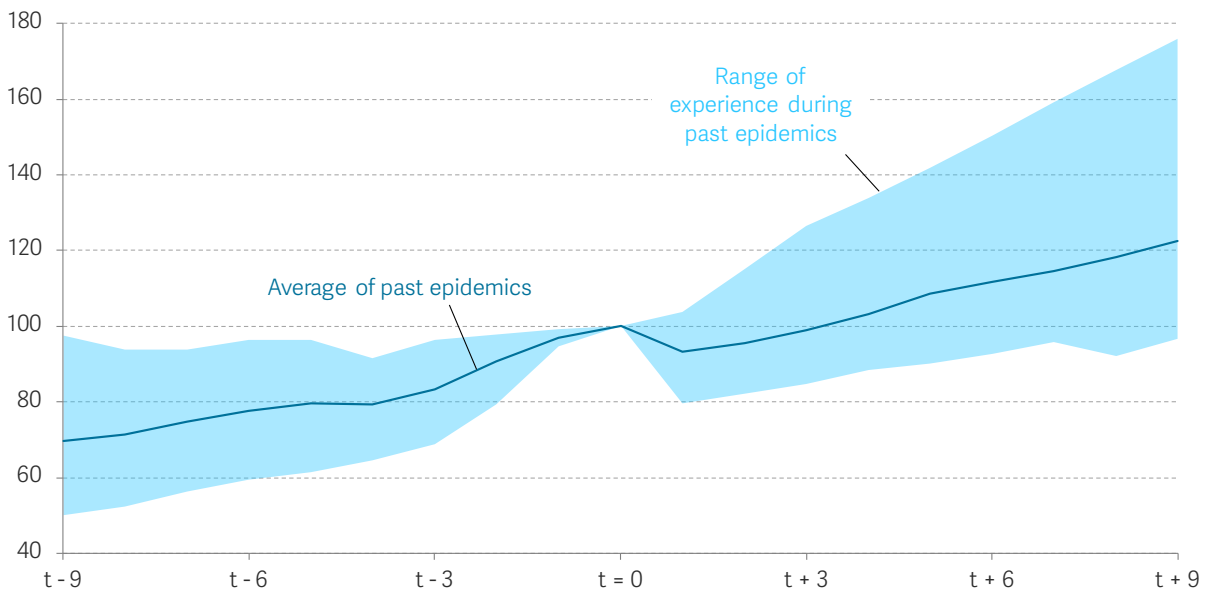
¹⁰ BBC, *Coronavirus: Property sales down 70% since lockdown, says Zoopla*, April 2020.

¹¹ The Guardian, *FTSE 100 posts largest quarterly fall since Black Monday aftermath*, March 2020.

¹² See: R Hughes, *Safeguarding governments' financial health during coronavirus: What can policymakers learn from past viral outbreaks?*, Resolution Foundation, March 2020.

FIGURE 2: Past epidemic crises have led to large and lasting falls in GDP

Index of real GDP in selected countries following a major viral outbreak (year prior to epidemic = 100)



NOTES: Chart includes data for Canada, UK and US around the time of the Spanish Flu epidemic (1918); Hong Kong around the SARS outbreak (2003); and Guinea, Liberia and Sierra Leone during the outbreak of Ebola in 2014. The data is annual and the pre-epidemic peak is taken as t = 0.
 SOURCE: IMF; World Bank; Ò Jordà, M Schularick & A Taylor, Macroeconomic History and the New Business Cycle Facts, NBER Macroeconomics Annual 2016, 31, M Eichenbaum & J Parker (eds.), University of Chicago Press, May 2017.

The economic shock is likely to hit the young and those on lower incomes the hardest

This unprecedented shock to the economy is likely to take the heaviest toll on younger workers and those on the lowest incomes, even taking account of additional government support being provided. Sectors already heavily affected by the necessary public health restrictions, including social distancing, have typical weekly pay of £320, compared to a figure of £455 for the economy as whole.¹³ Four-in-five social housing tenants in employment either work in sectors directly affected by social distancing, have jobs that cannot be performed from home, or are caring for school-aged children. Less than one-in-ten low earners report that they can work from home if needed, compared to half of those on the highest earnings. Young people tend to be lower paid, have less savings, and work disproportionately in sectors that are losing jobs the fastest. Those just leaving education are entering a jobs market with few current vacancies or, if they have found a job, are most likely to be the first to be laid off and the last to be rehired.

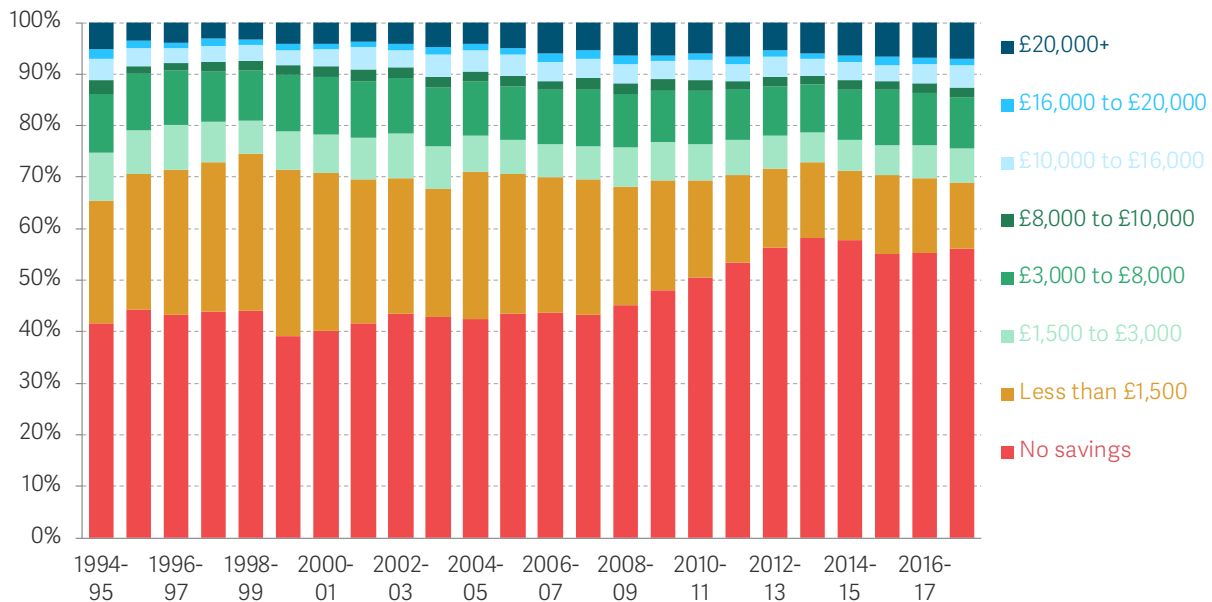
Both younger households and those working on low wages are less likely to have the financial buffers that allow them to cushion the effects of falls in income, making them more vulnerable. Before the coronavirus crisis, around 55 per cent of adults in low-to-

¹³ Resolution Foundation, *Doing what it takes: Protecting firms and families from the economic impact of coronavirus*, March 2020.

middle income families had no savings at all, as shown in Figure 3. This proportion has risen from closer to 40 per cent since the 2008 financial crisis, with the sluggish recovery in incomes over the past decade limiting the ability of families to build up savings.¹⁴

FIGURE 3: The proportion of low-to-middle income families with no savings has risen since the financial crisis

Savings and investments (nominal) of adults in low-to-middle income families: UK, 1994-95 to 2017-18



NOTES: UK from 2002-2003, GB before. Savings figures are not adjusted for inflation. Low-to-middle income families are those of working age in the bottom half of the income distribution in which at least one person works.

SOURCE: RF analysis of DWP, Households Below Average Income.

There remains considerable uncertainty about the duration of the outbreak

While there are encouraging signs about the effectiveness of social distancing measures in containing the spread of the virus, there remains considerable uncertainty as to the likely duration of the outbreak in the UK and how quickly public health restrictions could safely be lifted here. History tells us that, in the absence of a reliable testing and tracing regime, antibody test, or vaccine for the virus, epidemics can last for many months, and even years. Given the uncertainty regarding when public health restrictions can safely be loosened or lifted entirely, the Government’s economic and fiscal policies need to be robust to a range of scenarios for the duration of these restrictions, and the pandemic itself.

¹⁴ J Smith & C Pacitti, *A problem shared? What can we learn from past recessions about the impact of the next across the income distribution?*, Resolution Foundation, August, 2019.

The remainder of this section models the economic implications of three plausible scenarios for the length of the coronavirus outbreak and duration of social distancing required to contain the spread of the virus:

- A three-month scenario, in which social distancing measures are lifted at the end of June. This is consistent with the rapid containment of the 2003 SARS outbreak in Hong Kong and mainland China. In addition, it rests on encouraging signs from East Asia and elsewhere in Europe about the effectiveness of social distancing, in conjunction with widespread testing, in stopping transmission of the coronavirus.
- A six-month scenario, in which social distancing measures remain in place until the end of September, or are lifted in June and then re-imposed for a further three-month period later in the year. This would be in line with comments made by Dr Jenny Harries (the UK's deputy Chief Medical Officer) at the end of March, suggesting it could be six months before life returns to 'normal'.¹⁵
- A 12-month scenario, in which social distancing measures remain in place until March 2021. This scenario would be consistent with historical experience of countries hit hardest by the 1918-1920 Spanish flu global pandemic and 2014-2016 Ebola epidemic in West Africa, during which successive waves of transmission led to repeated tightening and loosening of public health restrictions over several years.

The impact of the outbreak on the economy under the three scenarios is estimated based on the contemporary and historical evidence, summarised above, for the impact of social distancing measures on different forms of economic activity. The key economic assumptions under each of these scenarios, and the data used to calibrate them, are summarised in Table 2.

¹⁵ See: BBC, [Coronavirus: Six months before UK 'returns to normal' - deputy chief medical officer](#), March 2020.

TABLE 2: Key assumptions for the economic scenarios

Key assumptions	3 months	6 months	12 months	Rationale
Annual GDP loss in 2020	-10%	-20%	-24%	Assumes 30 per cent fall in output during the period of lockdown. 30 per cent is consistent with early measures of activity, ONS survey evidence of firms' loss in revenue, labour market surveys from BCC and CIPD, independent forecasts and the historic experience of countries during previous health crises. Uncertainty around the eventual size of the hit is very large.
Long-run GDP lost relative to pre-crisis trend	-3%	-5%	-7%	A lasting impact on GDP is consistent with past epidemics and past recessions. These effects increase proportionately with the length of the lockdown. In the 12-month scenario, the loss in GDP relative to trend is similar to the average of past recessions by the final year.
Cost of Government borrowing	0.5%	0.5%	0.5%	Taken from market pricing on 1 April. There are risks on both sides from a further flight to safety and increased risk premia given concerns over the sustainability of government debt.
CPI inflation (2020)	0.5%	0.5%	0.5%	Inflation is somewhat weaker in the near term reflecting constraints on increasing prices and depressed demand. From 2021 inflation returns to baseline. This is consistent with past epidemics.
Peak average annual unemployment level, millions (and rate)	1.9 (5.4%)	4.8 (14.1%)	7.2 (20.8%)	Non-employment is expected to rise proportionally to the fall in output, adjusted for the historic relationship between recessions and the labour market (i.e. productivity slows faster than GDP as the economy enters recession, but recovers thereafter). 80 per cent of laid-off workers are assumed to access the job retention scheme, 20 per cent are recorded as unemployed. The peak in unemployment occurs in the six- and 12-month scenarios after the retention scheme is closed, assumed to be the quarter after the lockdown ends, when those on the scheme who do not have a job to return to become unemployed.
Average hours peak loss	-2%	-3%	-5%	We have assumed some firms cut hours for workers rather than laying off staff. ONS survey evidence suggests a net balance of 20 per cent of firms are planning to do this. We assume hours are cut by a third for these workers - in line with the fall in output.
Employment growth at trough	-8%	-17%	-20%	As with unemployment, employment follows the path of GDP adjusted for the changes in productivity observed during typical UK recessions.
Reduction in housing transactions	1 quarter	2 quarters	1 year	Housing activity will be severely constrained with the number of transactions lost equal to the number in the baseline during the lockdown, consistent with a Knight Frank report suggesting transactions will fall substantially this year and lost transactions will not be recovered later.

Independent forecasts predict that GDP will fall faster than during the financial crisis

Having forecast annual GDP growth of just over 1 per cent for 2020 before the lockdown measures, independent forecasters are now predicting a fall in output deeper than during the financial crisis. An economic scenario produced by the Office for Budget Responsibility (OBR) for a three-month lockdown suggested economic activity could fall by 35 per cent during the period of restriction. This would leave GDP for the whole of 2020 lower by 13 per cent relative to 2019. This is close to the three-month scenario presented in this paper, with the fall in GDP slightly larger in the OBR scenario, but followed by a faster recovery.

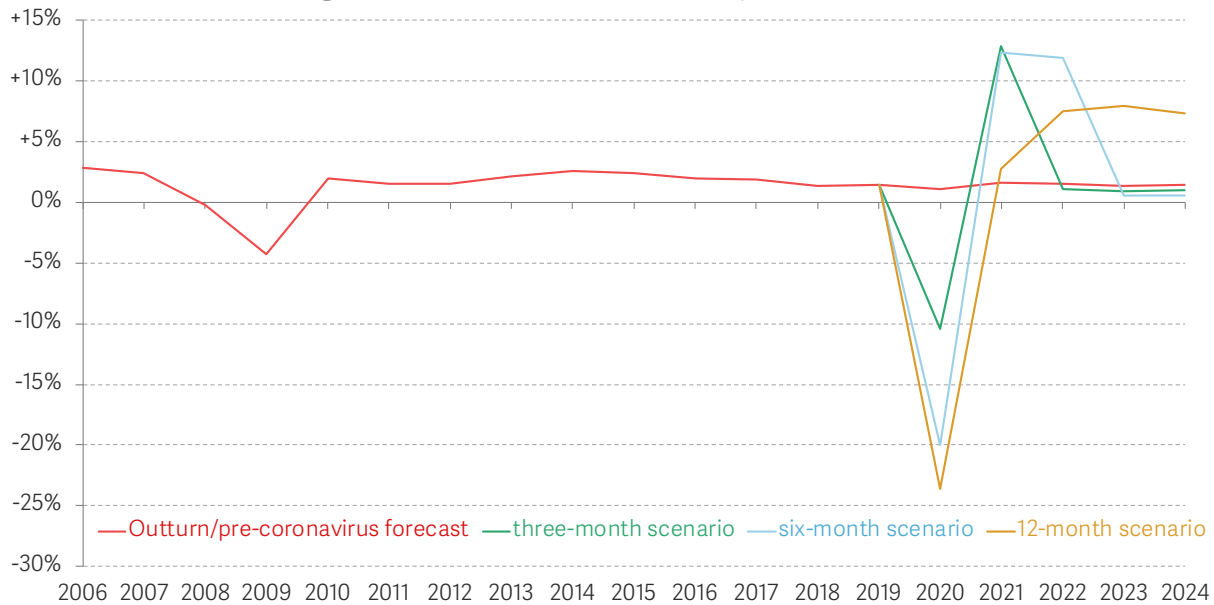
Other estimates of the fall in output across advanced economies during the period of lockdown vary from -8 to -27 per cent (Figure 4).¹⁶ Independent forecasts (aside from the that of the OBR) for the economic contraction over 2020 as a whole vary from -4 to -12 per cent, with one of the major drivers of difference being varying assumptions about

¹⁶ JP Morgan is forecasting a fall in GDP in the second quarter of 2020 of 8 per cent, while the Organisation for Economic Co-operation and Development has stated that GDP could be down by 27 per cent during the period in which social distancing restrictions are in place.

how long social distancing measures will need to be in place.¹⁷ This range is compared with peak quarterly and annual losses in output during the financial crisis of 2.1 and 4.2 per cent, respectively.

FIGURE 4: Forecasters have slashed their expectations for growth

Forecasts for GDP growth in 2020 and the second quarter of 2020: UK



NOTES: Fathom Consulting did not provide a forecast for the full year in 2020 and the IMF has not published a forecast for the second quarter of 2020.
SOURCE: BBC; OBR.

Turning to our own scenarios in more detail, annual real GDP falls by double-digit figures in 2020 under all three. This outcome is based on our assumption that economic activity will be around 30 per cent lower during periods of ‘lockdown’. This is a slightly larger contraction during lockdown periods than suggested by the average of independent forecasters. However, it is in line with the most recent survey evidence, which shows economic activity continuing to deteriorate below the levels used to calibrate independent forecasters’ estimates.

The size of the fall in annual real GDP outcomes in each of our scenarios (Figure 5) is driven by the length of time for which health restrictions suppress economic activity. For a three-month outbreak, annual real GDP falls by 10 per cent. This is almost 2.5 times the largest annual fall in GDP during the financial crisis, and close to the average peak fall in GDP during previous viral outbreaks. For a six-month outbreak, annual real GDP contracts by 20 per cent, similar to the largest falls in GDP experienced by countries hit hardest by the Ebola outbreak, but twice as large as any fall annual GDP experienced in the UK the past three centuries.¹⁸ Under the 12-month scenario, annual GDP contracts

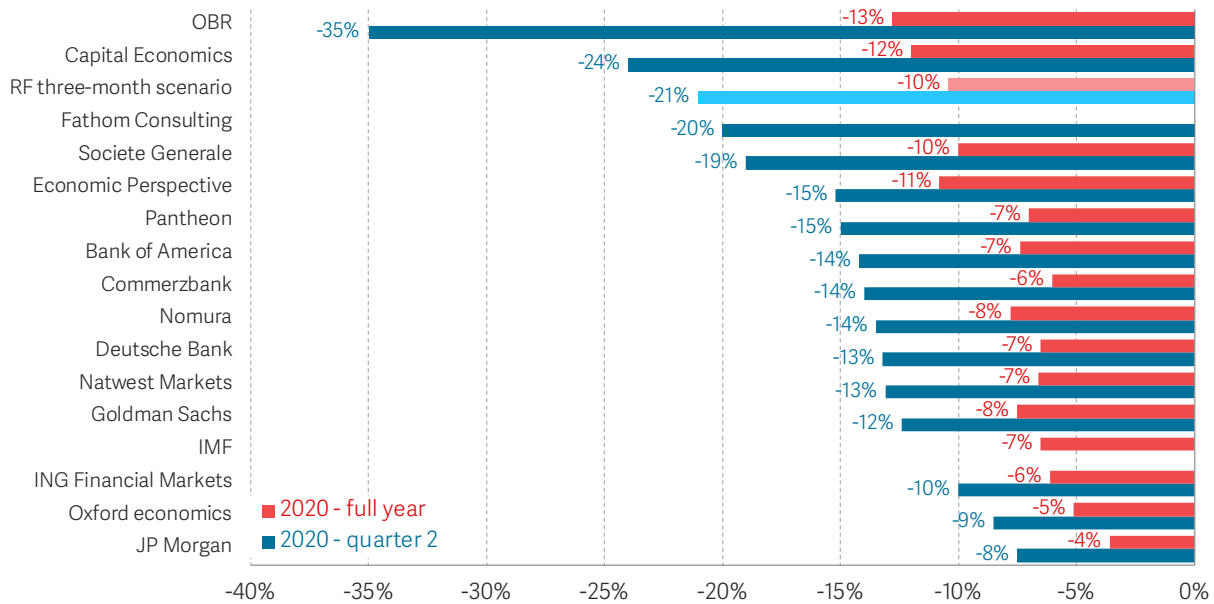
¹⁷ F Islam, [Record fall in UK economy forecast](#), BBC, April 2020.

¹⁸ RF analysis of Bank of England, [A millennium of macroeconomic data](#), accessed April 2020.

by 24 per cent, a fall in annual output unknown in most advanced economies during peacetime.

FIGURE 5: Real GDP in 2020 falls by double digits in all three scenarios

Annual real GDP growth – outturn, pre-coronavirus forecast and three scenarios: UK

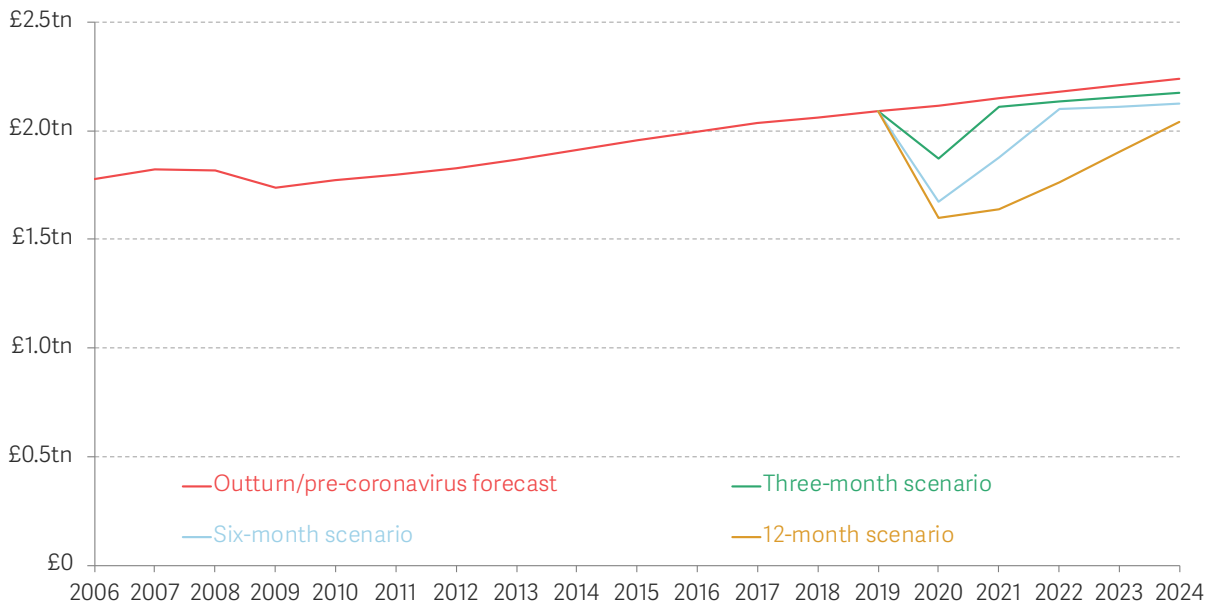


SOURCE: RF analysis of OBR.

Depending on the duration of the lockdown and the scarring effects on firms and individuals, real GDP could take anywhere from six months to five years to recover to its pre-outbreak level, with the permanent output lost ranging from -3 to -7 per cent. The longer social distancing measures need to be in place, the longer it takes for economic activity to return to its pre-outbreak levels, as shown in Figure 6. This is due to the hysteresis effects of a downturn, discussed in Box 1. For a three-month outbreak, the economy experiences a V-shaped recovery in the third quarter of 2020 and only loses 3 per cent of output by the middle of the decade. If the outbreak lasts for six or 12 months, then the recovery of real GDP to pre-outbreak levels could take between two and five years, with permanent output losses of -5 and -7 per cent, respectively. However, the coronavirus outbreak represents an exogenous shock to a fundamentally sound, albeit slow-growing, economy. On this basis, once social distancing measures are lifted, real GDP returns to pre-outbreak levels faster (in the three- and six-month scenarios) than the average of almost four years that it has taken to do so following previous UK recessions.

FIGURE 6: Real GDP takes longer to recover from longer lockdowns

Real GDP outturn, pre-coronavirus forecast and three scenarios: UK



NOTES: The pre-coronavirus forecast is based on the OBR’s economic forecast presented at the 2020 Spring Budget. The trough of activity in the 12-month scenario is not double the six-month scenario in 2020 because a quarter of the impact on GDP in the 12-month scenario is in 2021, which shows up in the flatter recovery for that scenario.
SOURCE: RF analysis of OBR.

Our estimates of the possible scarring effect of coronavirus on the economy represent the biggest divergence from the OBR’s equivalent analysis. The OBR models an economy that returns to the pre-crisis GDP trend level by the end of 2020. By contrast, even in our three-month scenario, the economy never returns to the pre-crisis trend. This is not just an academic consideration; the economic policy challenges faced by the Government will be much larger if the economy ends up structurally smaller after restrictions are lifted. Box 1 discusses such scarring effects in more detail.

BOX 1: The lasting effects of economic downturns

As discussed above, the coronavirus crisis is leading to a very sharp recession, with economic activity brought to a halt in many sectors. That fall in economic activity will persist as long as social distancing measures remain in place. While there is significant uncertainty about the depth and persistence of the fall in economic

activity, it is perhaps even less easy to calibrate the speed and extent of the recovery. Because any permanent impact on the size of the economy will affect the fiscal position even in the long run, this box looks at how that lasting impact might differ from those after past UK recessions.

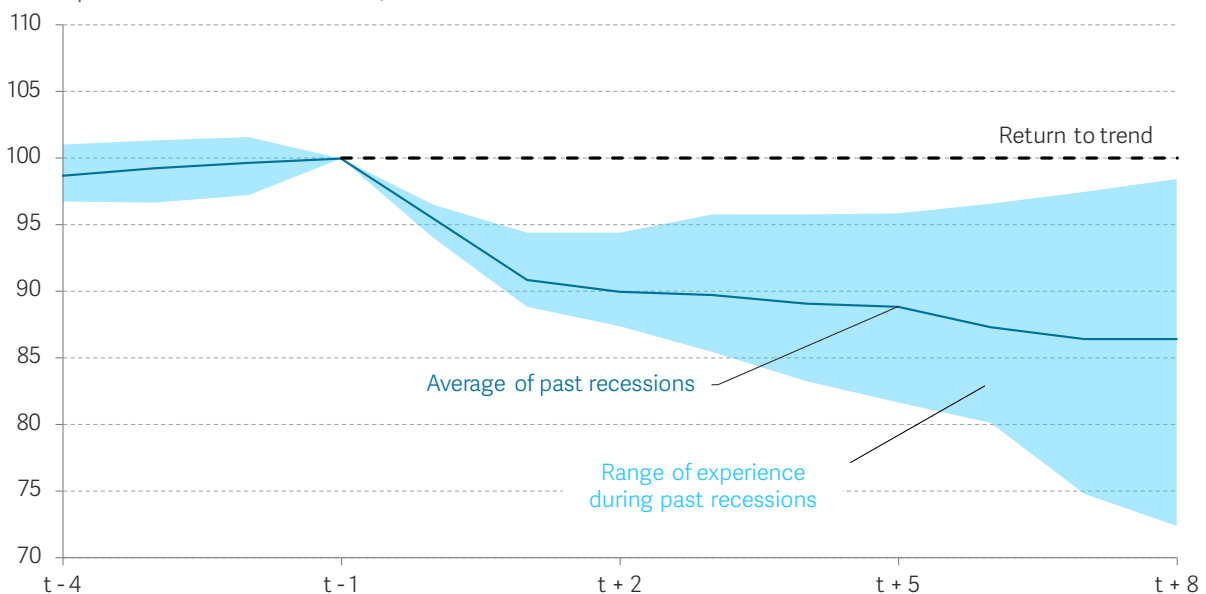
Past recessions have tended to have a persistent impact on the UK economy. Following the recessions of the early 1980s and 1990s, for example, those long-lasting effects took the form of a prolonged period of high unemployment. Because workers who had been displaced found it difficult to return to their previous jobs, this led to a number of workers becoming long-term unemployed, making a return to work in any form more difficult. Such unemployment hysteresis is what most people think of when considering the lasting effects of recessions.

But following the financial crisis, the lingering costs of the recession were instead reflected in the unprecedented weakness in productivity, resulting in

a stagnation in incomes. One of the primary drivers of the slow productivity recovery was the need for financial institutions to strengthen their balance sheets, which limited the supply of credit to the real economy. This was reinforced by weak investment demand on the part of firms and an increase in labour supply by households. These factors combined to result in weak productivity growth and, ultimately, weak income growth. So even though the rise in unemployment was smaller than after the 1980s and 1990s recessions (despite a larger hit to GDP), the inflation-adjusted value of incomes continued to fall for around six years after the financial crisis.

FIGURE 7: Falls in GDP during past recessions persisted even after the recessions were over

Index of real GDP relative to pre-recession trend around major UK recessions (year prior to recession = 100)



NOTES: Includes the 1970s, 1980s, 1990s and financial crisis recessions. Trend is defined as the average growth rate over the five years prior to the start of the recession.

SOURCE: RF analysis of Bank of England.

As shown in Figure 7, these mechanisms have led to persistent falls in GDP relative to the pre-recession trend. On average, GDP is around 14 per cent below a continuation of its pre-recession trend (with the trend assumed to be the growth rate over the five years prior to the start of the recession).

But it is important to keep in mind that this downturn will be different from those of the past. The speed of the recovery will depend on the extent to which social-distancing restrictions are lifted. One way in which the impact of the coronavirus crisis could be more persistent is if social distancing measures are not reversed completely at the end of the period in which they apply. It is not hard to imagine that even if some measures are lifted in the relatively near term, other restrictions could remain in place for some time (for example, travel and larger gatherings). That, combined with continued voluntary caution among those worried about further waves of infection, would mean that a return to 'business as usual' may take some time. While evidence from past epidemics suggests this could indeed be a problem, it is difficult to extrapolate from those past episodes to predict what will happen this time round, given differences in the nature of the policy response.

In addition to long-lasting direct effects from measures to contain

the outbreak, it is also possible that the same mechanisms that operated after previous recessions might lead to lasting economic scarring. Indeed, the longer the crisis lasts for, the more firms are likely to become bankrupt as pre-outbreak order books are exhausted and cash reserves run out, and the more workers are likely to become detached from their employers and discouraged about their future employment prospects.

Crucially, however, unlike in other recessions, this one should not lead to wholesale changes to the structure of the economy, particularly in the short term. Indeed, if a sector or industry was profitable before the spread of the virus, for the most part we would expect that sector to be profitable in future, too. On top of that, relative to past recoveries, policies put in place to reduce the employment hysteresis mechanisms evident in the 1980s and 1990s recessions – most obviously the Coronavirus Job Retention Scheme – should limit the extent to which joblessness persists, even if more people stop working than in those recessions.

Taken together, then, while there is a lot of evidence that past recessions have had long-lasting impacts, our view is that this should be less of a risk if social distancing restrictions remain in place for only a few months.

While the timing and extent of the lifting social distancing measures will be crucial in determining the path of the recovery, there is good reason to

think that the lasting impact on the economy will, in relative terms, be smaller this time.

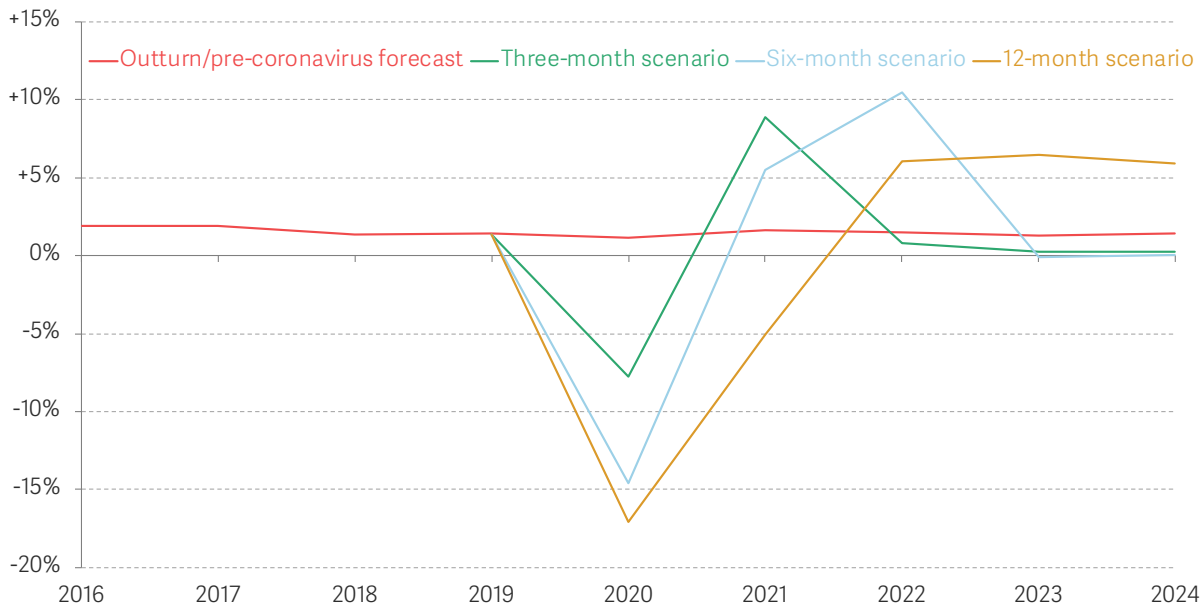
Labour market outcomes in our scenarios are driven by the changes in GDP. Active employment (those in work and not part of the Job Retention Scheme) falls, and recovers proportionally to the changes in aggregate economic activity. But the relationship is not assumed to be one-to-one; rather, labour productivity is assumed to fall during the depths of the crisis – for example, as firms continue to employ workers despite a fall in order volumes – and then recovers as GDP starts to grow again. This means that active employment falls by less than GDP, but recovers more slowly in the aftermath of the crisis.

The JRS will substantially reduce the number of workers becoming ‘officially’ unemployed, as they continue to receive pay directly from their employer. The JRS is more successful at limiting the peak of unemployment in the three-month scenario than in the six- and 12-month scenarios. This is because the recovery is slower in both the longer scenarios which means that, once the scheme is withdrawn at the end of the lockdown period, a lower proportion of workers on the retention scheme resume working for their firms but instead move into unemployment.

As shown in Figure 8, active employment falls by between 2.7 million and 7.2 million on an annual average basis, which equates to 8 and 17 per cent under the three scenarios. This entails 80 per cent of those off work assumed to be on the JRS, and 20 per cent recorded as officially unemployed, while the JRS is operating. Once the JRS scheme is closed, unemployment peaks at almost 2 million (5.4 per cent) in 2020 under the three-month scenario. However, it rises to an annual average of almost 5 million (14.1 per cent) in the six-month scenario and over 7 million (20.8 per cent) in the 12-month scenario, both in 2021. The within-year peak in unemployment will be higher than these annual averages, with the worst figures registered just after the JRS closes.

FIGURE 8: **Employment falls and recovers slower than GDP**

Annual employment growth – outturn, pre-coronavirus forecast and three scenarios: UK



SOURCE: RF analysis of OBR.

Inflation is assumed to remain broadly stable over the three scenarios. The near-term path of inflation will be determined by the balance between artificially-constrained supply and demand for goods and services, as well as between the supply and demand for liquidity, both of which are rising rapidly. In the very short term, many prices are likely to be stickier than usual with businesses that are unable to trade, or facing operational capacity constraints, less likely to immediately change prices. There may also be social pressure not to raise prices at a time when it could be viewed as taking advantage of the health crisis. Consistent with these offsetting forces, inflation in past epidemics does not show a clear trend in their aftermath. So, reflecting these arguments as well as offsetting influences from the falls in sterling and oil prices, inflation is assumed to fall moderately to around 0.5 per cent in 2020. Medium-term inflation expectations will be dictated by perceptions of the Bank of England’s commitment to its inflation target in the face of other potential pressures on its mandate. In the absence of a clear basis on which to model the interplay between these factors, inflation is assumed to return to, and remain close to, its target, which is consistent with experience from past epidemics.

There are, however, considerable uncertainties here. If it turns out that supply constraints are materially more significant than those on demand, this could lead to a sharp and persistent rise in inflation. If monetary policy makers are not able to respond as they usually would – for example because they are concerned about a rise in government bond yields – the rise in inflation could become embedded in households’ and

businesses' inflation expectations. This would make it more difficult for inflation to fall back in future.

As with inflation, it is difficult to judge whether a longer outbreak would cause gilt yields to fall further as investors seek a safe haven from mounting economy-wide risks, or begin to rise as investors start to question the Government's solvency. Interest rates are assumed to follow the path implied by the current gilt yield curve, which has fallen by 40 basis points since the March 2020 Budget. However, as discussed in the following section, significant rises in inflation or interest rates pose an important risk to the sustainability of the Government's economic strategy, especially if the outbreak lasts longer than a few months.

Section 3

The public finance impact of coronavirus

Lower revenues, higher spending and higher debt will place unprecedented pressure on the UK's public finances in the months and years ahead. This should not be surprising – it is what follows inevitably from the necessity of responding effectively to the pandemic. Around half of the likely fiscal impact of coronavirus comes from the economic shock itself, with the other half a result of the policy measures announced to shield firms and business from its full impact. The Government's fiscal policy response to coronavirus could require an extra 4, 9, or 21 per cent of GDP in borrowing this year, depending on whether the outbreak lasts three, six, or 12 months.

Taking both economic impacts and the Government's policy response into account, coronavirus could push borrowing and debt close to, or above, historic highs. A three-month lockdown raises borrowing to 11 per cent of GDP this year (higher than during the financial crisis), a six-month lockdown would mean borrowing reaching 22 per cent of GDP (levels last reached in the Second World War), and a 12-month lockdown would require borrowing of 38 per cent of GDP (10 per cent of GDP higher than the UK has ever borrowed in a single year in its history). Government debt rises above 100 per cent of GDP in all scenarios, reaching 129 and 167 per cent of GDP under the six- and 12-month lockdowns respectively – levels not seen since the decade after the Second World War.

The key immediate fiscal challenge will be mobilising the liquidity needed to finance potentially very large monthly deficits, while also rolling over the debt issued during the financial crisis. Over the longer term, assuming inflation stays close to target and interest rates remain at historic lows, debt interest payments remain a manageable share of total revenues under all scenarios. However, rising inflation or gilt yields pose a key risk to long-term fiscal sustainability, and could cause the debt-interest-to-revenue ratio to more than double if interest rates revert to their estimated long-run equilibrium.

Coronavirus will place significant pressure on the public finances

Viral epidemics can place enormous pressure not only on the health systems and economies of the countries affected, but also on their public finances.¹⁹ These pressures stem from a combination of the direct impact of the contraction in economic activity discussed above on government revenue and expenditure, together with the cost of policy measures to mitigate the impact on individuals and firms. As illustrated in Figure 9, in the case of coronavirus, the impact on the UK public finances will result from a combination of:

- Lower revenues, due to the reduction in economic activity during lockdown, a fall-off in tax compliance, and tax reliefs and payment holidays;
- Higher expenditure, due to a spike in healthcare costs, higher claims for more generous unemployment and housing benefits, wage subsidies for furloughed employees and the self-employed, and financial support extended to particular sectors or firms; and,
- Higher debt, both as a result of the additional borrowing needed to finance the fiscal deficit created by the above, but also to fund the Bank of England's quantitative and credit-easing operations and meet the Government's share of any defaults on government-guaranteed loans by commercial banks.

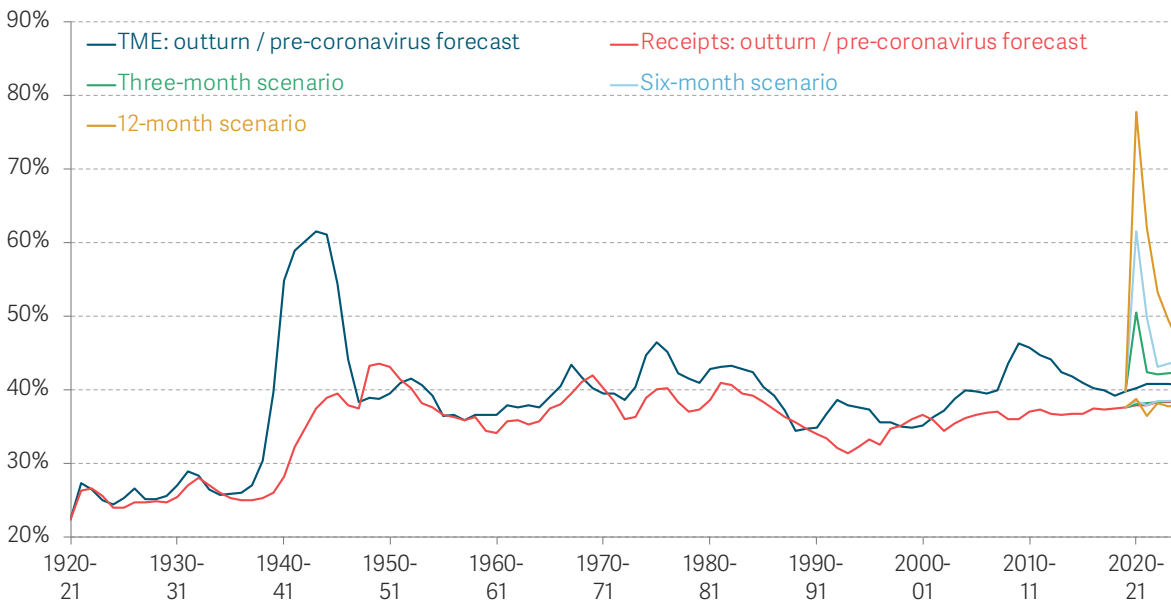
This section examines the implications for the UK public finances of the three scenarios for the duration of the coronavirus outbreak. It looks first at the direct impact of the contraction in economic activity discussed above on state revenue and expenditure. It then provides a comprehensive account of the costs of the Government's fiscal and monetary policy response under the three different scenarios. The final part of this section looks at the combined impact of the economic contraction and the Government's policy response on the public finances for outbreaks lasting three, six, and 12 months. These estimates use the OBR's March 2020 Economic and Fiscal Outlook post-measures fiscal forecast as a baseline. However, we remove additions to the resource and capital departmental expenditure limits for the 2020 Spending Review period, on the assumption that the focus of fiscal policy for the moment will be on fighting the coronavirus outbreak, and many of the ambitious plans set out in the Budget are likely to be revised.²⁰

¹⁹ R Hughes, [Safeguarding governments' financial health during coronavirus: What can policymakers learn from past viral outbreaks?](#), Resolution Foundation, March 2020.

²⁰ This differs from the baseline used in the OBR's Coronavirus reference scenario, which uses the Budget 2020 baseline in full, including all spending plans set out in the March 2020 Budget. See: Office for Budget Responsibility, [Coronavirus reference scenario](#), April 2020.

FIGURE 9: Spending is set to rise sharply as revenues decline

Total managed expenditure (TME) and public sector current receipts (PSCR), as a proportion of GDP – outturn, pre-coronavirus forecast and three scenarios: UK



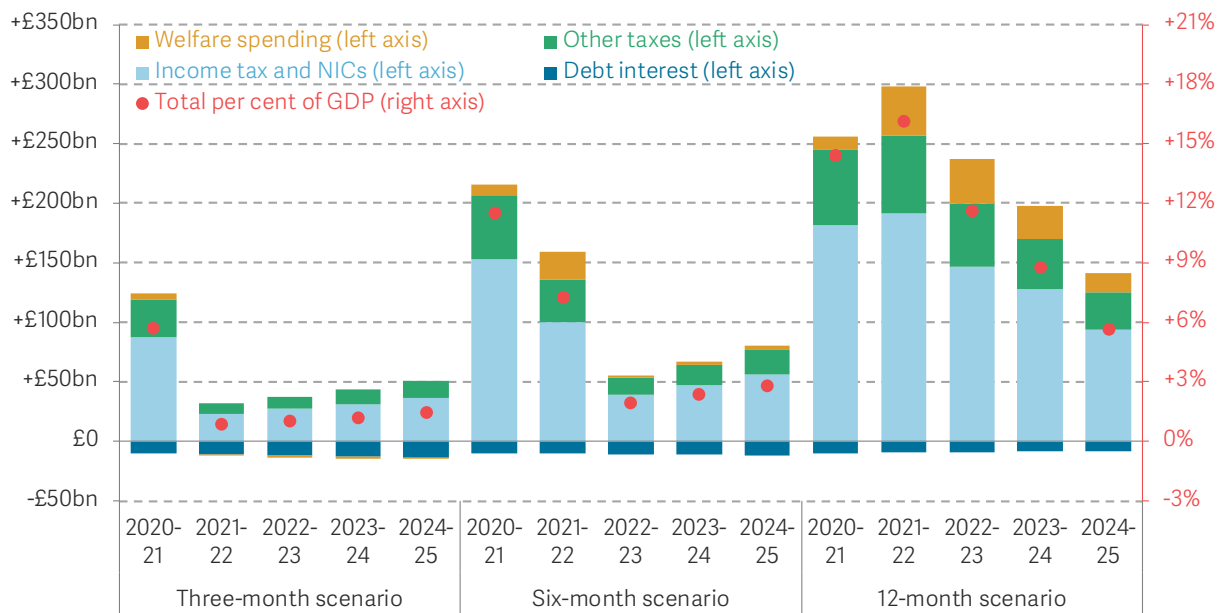
SOURCE: RF analysis of OBR, Economic and Fiscal Outlook – March 2020, March 2020; sources for economic and policy costings for scenarios given below.

Around half of the fiscal impact of coronavirus comes from the economic shock

In the three scenarios modelled, 40 to 60 per cent of the impact of coronavirus on the public finances comes directly from the economic shock of the pandemic, rather than policy decisions. This is primarily as a result of lower tax receipts (especially lower income tax and National Insurance contributions (NICs)) with rising welfare spending (principally unemployment benefits) also making a significant contribution, especially in the six- and 12-month scenarios. The fall in gilt yields since the March Budget provides some modest relief to the public finances by reducing debt interest costs, even after taking account of the additional debt incurred to finance the Government’s policy response. Figure 10 shows the additional borrowing incurred as a result of the economic impact of social distancing measures under three scenarios. At its peak, the economic shock increases borrowing by 6 per cent of GDP in the three-month scenario, 11 per cent of GDP in the six-month scenario, and 16 per cent of GDP in the 12-month scenario (in which the peak comes a year later in 2021-22).

FIGURE 10: Borrowing increases due to falling tax receipts and rising welfare spending

Additional public sector net borrowing – three scenarios: UK



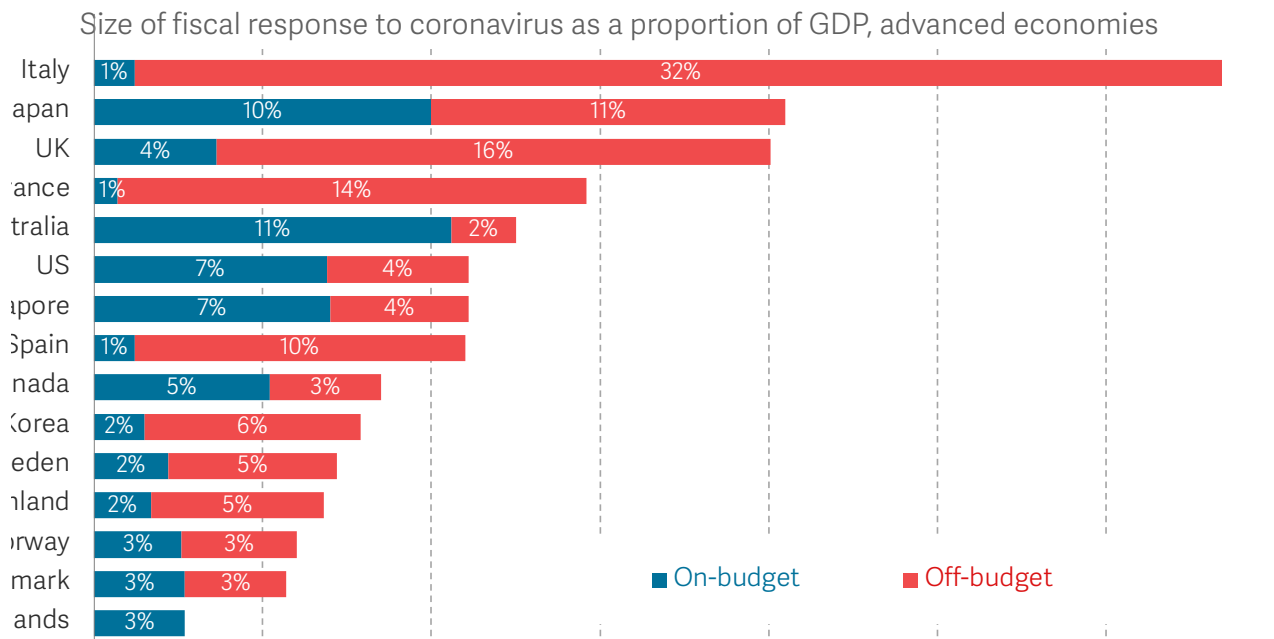
SOURCE: RF analysis of OBR, various.

The Government’s policy response also significantly increases expenditure

These economic effects, while significant, account for only around half of the fiscal cost of coronavirus, with the other half arising from the Government’s policy response. The package of fiscal and monetary policy measures over the past month – aimed at shielding individuals and firms from the economic disruption created by the outbreak and the public health restrictions required to contain it – is of a size and scope greater than that seen during the financial crisis. If maintained for longer than three months, this package would result in an unparalleled increase in expenditure in the UK’s modern history. In international terms, the UK currently has one of the most generous packages of support among advanced economies – even excluding the Bank of England’s policy interventions – at around £400 billion, or 20 per cent of GDP (Figure 11).²¹

²¹ International Monetary Fund, *Fiscal Monitor – April 2020*, April 2020.

FIGURE 11: The UK has one of the largest fiscal responses to coronavirus among advanced economies'



NOTES: 'On-budget' refers to policy measures that increase borrowing, while 'Off-budget' refers to contingent liabilities (such as the Government's Coronavirus Business Interruption Loan Scheme), and measures that impact on debt. The UK is presented excluding Bank of England measures.
 SOURCE: IMF, Fiscal Monitor, April 2020.

The main elements of the Government's policy package are:

- Health spending:** The Chancellor announced an additional £5 billion of healthcare spending in the March 2020 Budget, together with a commitment that the NHS would receive 'whatever it needs' to weather the crisis.²² This is likely to include higher capital spending to increase the UK's stock of ventilators as well as to set up makeshift hospitals across the country.²³ Staffing costs are also likely to rise, given longer hours worked by existing NHS workers and the re-hiring of returning staff. In addition, there is the possibility that the Government may have to pay out more to public sector staff working on the front lines in future, given the increased risk they are bearing in their work.
- Support for individuals:** The single biggest of the Government's schemes in terms of cost is the Job Retention Scheme, which covers 80 per cent of employees' pay if they are furloughed by their employers – up to a maximum of £2500 per month (see Box 2). The Government has also extended support to the self-employed through the Self-Employed Income Support Scheme – providing taxable grants amounting to 80 per cent of trading profits, of up to £2,500 per month.²⁴ The Government has

²² HM Treasury, *Budget speech 2020*, March 2020.

²³ NHS England, *NHS to build more Nightingale Hospitals, as London set for opening*, April 2020.

²⁴ Gov.uk, *Claim a grant through the coronavirus (COVID-19) Self-employment Income Support Scheme*, accessed 10 April 2020.

also increased the generosity of UC and legacy benefits, as well as increasing Local Housing Allowance to the 30th percentile of local private rents.²⁵

- **Support for firms:** In addition to supporting firms with their wage costs through the Job Retention Scheme, the Government is also reimbursing small- and medium-sized firms for the costs of all Statutory Sick Pay relating to coronavirus from 13 March 2020, covering up to two weeks of sickness or self-isolation (starting from the first, rather than fourth day of illness).²⁶ Firms can also access up to £330 billion worth of government-guaranteed loans through the Coronavirus Business Interruption Loan Scheme (CBILS), administered by the British Business Bank (BBB).²⁷ Small businesses with property are also currently eligible for grants of a maximum of £25,000, based on their rateable value.²⁸ In addition, UK VAT-registered firms have been given a tax ‘holiday’. VAT payments have been deferred between March and June 2020, with business rates for the retail sector also dropping to zero for 2020-21.²⁹
- **Support for specific sectors:** The transport sector has experienced a dramatic fall in usage as a result of the lockdown, with railway passenger numbers falling by almost 80 per cent.³⁰ Rail companies have been partially re-nationalised, with the Department for Transport suspending franchise agreements and transferring all revenue and cost risk to the public sector for an initial six-month period.³¹ Bus companies have also had injections of public funding, given similar falls in passenger numbers and revenue.³² The charity sector – particularly those on the front line of the crisis – has also been extended additional funding worth £750 million.³³
- **Bank of England schemes:** In addition to cutting interest rates from 0.75 to a historic low of 0.1 per cent, the Bank of England has extended financial support to the financial sector, firms, and government. This support has an effect on the public sector balance sheet. This includes a £200 billion increase in quantitative easing (largely purchases of UK government debt). In addition, the Bank’s £200 billion ‘Term Funding Scheme with additional incentives for small- and medium-sized enterprises (TFSME) extends long-term credit with low interest rates to banks that lend to small

²⁵ Valuation Office Agency, [Local Housing Allowance rates](#), March 2020.

²⁶ Gov.uk, [Claim back Statutory Sick Pay paid to employees due to coronavirus \(COVID-19\)](#), accessed 10 April 2020.

²⁷ British Business Bank, [Coronavirus Business Interruption Loan Scheme \(CBILS\)](#), accessed 10 April 2020.

²⁸ Gov.uk, [Financial support for businesses during coronavirus \(COVID-19\)](#), accessed 11 April 2020.

²⁹ Gov.uk, [Financial support for businesses during coronavirus \(COVID-19\)](#), accessed 10 April 2020.

³⁰ Department for Transport, [Government ensures ticket refunds and protects services for passengers with rail emergency measures](#), March 2020.

³¹ Department for Transport, [Government ensures ticket refunds and protects services for passengers with rail emergency measures](#), March 2020.

³² Department for Transport, [Almost £400 million to keep England’s buses running](#), April 2020.

³³ HM Treasury, [Chancellor sets out extra £750 million coronavirus funding for frontline charities](#), accessed 8 April 2020.

and medium-sized firms.³⁴ For large firms, the Bank has also established a 'Covid Corporate Financing Facility' (CCFF), purchasing nearly £6 billion of corporate paper from large financial institutions in the first three weeks of the scheme.³⁵ As all of these activities are funded by the creation of central bank reserves (a liability of the public sector as a whole towards the private sector), they mostly increase public sector net debt pound-for-pound.³⁶

While the Government has provided costings for most of these schemes on the basis of a relatively short outbreak of around three months, it is important to understand how costs might evolve for longer periods of social distancing. Table 2 models the fiscal impact of these policies over our three-, six- and 12-month scenarios for the duration of the outbreak. For most policies, extending the duration leads to proportional increases in cost, with the impact on government borrowing simply doubling over six months and doubling again over 12.

TABLE 3: Summary of Fiscal Policy Scorecard under three scenarios

Policy assumptions, effect on public sector net borrowing in 2020-21 and rationale

Policy measure	Total annual cost in 2020-21			Fiscal Impact	Rationale
	Three-month scenario	Six-month scenario	12-month scenario		
Support for individuals					
Job Retention Scheme	21	46	122	Borrowing	For details of costing see Box 2.
Increase in UC/legacy benefits and housing	7	7	7	Borrowing	Assuming increased generosity maintained over 5-year forecasting horizon.
Scheme for self-employed	6	13	29	Borrowing	Support maintained over period of lockdown (net of tax on income).
National Insurance contributions payments from	-1 from	-1 from	-1 from	Borrowing	Self-employed NICS increased by 3% to match employee rate from 2021-22.
Additional healthcare spending	5	10	20	Borrowing	£5bn announced in the Budget, extended over the 6 month and 12 month
Statutory Sick Pay	1	1	1	Borrowing	Take up of 45% of non-JRS private sector employees.
Business rates support	10	10	10	Borrowing	Business rates costing for one year of support.
Small business grants	15	30	60	Borrowing	OBR costing of small business grants for three months, extended over period
Funding for devolved administrations for support	4	4	4	Borrowing	Barnett consequentialia relating to support for businesses above.
Support for firms					
CBILS/CLBILS guarantees	6	24	97	Borrowing	- £330bn announced (£660bn in 6 month and £1,320 in 12 month) minus CCFF scheme - £304 bn (£608bn, £1,212bn). - 10% default rate in 3 month, 20% in 6 month, 40% in 12 month scenarios, with costs split between 2020-21 and 2021-22. - 50% loss given default (LGD) and 80% Government liability for losses.
Support for charities	1	2	3	Borrowing	£750mn package of support maintained over 6 and 12 month scenarios.
Support for sectors					
Support for travel industry: trains and buses	4	8	16	Borrowing	- Bus and train bailouts already announced, extending over lockdown period. - Re-gain a third of bailout over following three years.
Bank of England schemes					
Quantitative easing (QE)	30	30	30	Debt only	- Debt impact of £200bn of QE announced by BoE. - £2bn claimed in first week of facility, multiplied by number of weeks in lockdown.
Covid Corporate Financing Facility	26	52	104	Debt only	- Open for one year in three and six-month scenarios, and two in 12-month.
Term Funding Scheme with additional incentives	200	200	200	Debt only	-£100bn of credit support announced by BoE.
Total impact					
Effect on borrowing, £ billion	79	154	368		
Effect on borrowing, % GDP	4%	9%	21%		
Effect on debt, £ billion	335	436	702		
Effect on debt, % GDP	16%	23%	40%		

NOTES: In 'Fiscal impact' column, 'Borrowing' refers to measures that add to both borrowing and debt, and 'Debt only' to those only reflected in debt. See footnote 36 for explanation of the treatment of QE.

SOURCE: RF analysis of ONS, Labour Force Survey; HM Treasury, Budget 2020, March 2020; Gov.uk, Financial support for businesses during coronavirus (COVID-19); Department for Transport, Government ensures ticket refunds and protects services for passengers with rail emergency measures, March 2020; Department for Transport, Almost £400 million to keep England's buses running, April 2020; HM Treasury, Chancellor sets out extra £750 million coronavirus funding for frontline charities, April 2020; Bank of England, Our response to Coronavirus; HMRC, Direct effects of illustrative tax changes, April 2019.

³⁴ Bank of England, *Our response to Coronavirus (Covid-19)*, accessed 11 April 2020.

³⁵ Bank of England, *Bank of England Weekly Report 1 April 2020*; *Bank of England Weekly Report 8 April 2020*, April 2020.

³⁶ The one exception to the 'pound-for-pound' increase in debt from Bank schemes is the additional £200 billion in quantitative easing, which adds around £30 billion to public sector net debt. This is because while the gilts purchased by the Bank net off against those issued by the Government, there is a difference between the market value at which they are purchased and the face value at which they are recorded in government finance statistics.

However, there is a more sophisticated costing for some policies, including the Job Retention Scheme (set out in Box 2) and the loan schemes (see rationale in Table 3). On the latter, costs are assumed to rise proportionally in each scenario as the loan book increases, but there is an amplifying effect beyond this because default rates are assumed to increase as the lockdown period goes on.³⁷

BOX 2: Costing the Job Retention Scheme

The Government's Coronavirus Job Retention Scheme covers 80 per cent of the pay of employees furloughed by their employers, up to a cap of £2,500 a month. The Government has also committed to covering the costs of minimum employer pension contributions (of 3 per cent on qualifying earnings) for those auto-enrolled into a pension scheme.³⁸ Employees will have to pay tax (Income Tax and employee National Insurance) on furloughed wages in the usual way, though the Government has committed to covering the cost of employer National Insurance contributions on furloughed wages. While the JRS is the single most expensive item in the package of coronavirus-related fiscal support, the long-term economic, fiscal, and social benefits of keeping workers attached to their employers and the labour market,

and avoiding unprecedented levels of unemployment, almost certainly exceed the temporary costs of the scheme.

Estimated net costs of the scheme are provided in Table 4. Additional spending on furloughed wages and pension contributions is netted off against the increase in Income Tax and employee NICs revenues paid while the JRS is in operation. This tax take is calculated relative to a scenario in which no JRS was implemented and a much larger increase in unemployment takes place. The three-month scenario assumes that one-third of private sector employees are on the JRS for the full three months. In the six- and 12-month scenarios, the proportion of private sector employees rises to 40 and 50 per cent, respectively, as the impact of the shutdown ripples further across the economy.

³⁷ Both the CBILS and CCFF loan schemes are un-costed in the OBR's [Coronavirus reference scenario](#), resulting in a lower peak in public sector net debt in 2020-21 than in the three-month scenario set out below.

³⁸ Gov.uk, [Guidance: Claim for your employees' wages through the Coronavirus Job Retention Scheme](#), accessed 10 April 2020

TABLE 4: The Job Retention Scheme could cost significantly more than anticipated

Estimated costs of the Job Retention Scheme: 2020-21

	Three-month scenario	Six-month scenario	12-month scenario
<i>Fiscal impact</i>			
Spending (£bn)	29	64	152
Revenue (£bn)	9	18	30
Net cost (£bn)	21	46	121
<i>Assumed take-up</i>			
Private sector employees (m)	6.9	8.2	10.3
Private sector employees (%)	33%	40%	50%

NOTES: Costed on a ‘slice’ rather than a ‘slab’ basis. For example, the six-month scenario is costed assuming 6.9 million employees make use of the scheme in the first three months, and 8.2 million make use of it in the next three months. Costed using weekly pay from the Labour Force Survey updated to January 2020 levels using Average Weekly Earnings. Revenue calculated assuming the JRS is marginal, e.g. received on top of earnings from employment taking place in the rest of the year, based on weekly pay from the 2019 Labour Force Survey.

SOURCE: RF analysis of ONS, Labour Force Survey; ONS, Average Weekly Earnings.

Unit cost assumptions are based on Resolution Foundation analysis of private sector employee pay as recorded in the *Labour Force Survey* in 2019, as well as analysis of which industries and occupations are more likely to make use of the scheme.³⁹

Take-up assumptions for the JRS under the three scenarios are based on evidence from recent surveys of businesses about their responses to coronavirus so far, as well as their planned use of the scheme, including:

- The 9 April Office for National Statistics (ONS) *Business Impact of*

COVID-19 Survey reported that 29 per cent of businesses were ‘laying off staff in the short term’ as a result of coronavirus.⁴⁰ This survey took place between 9 March and 22 March 2020, with the JRS announced on 20 March 2020. It’s highly likely that most of these respondents will now choose to furlough rather than lay off staff.

- An 8 April British Chambers of Commerce (BCC) survey found that 37 per cent of businesses are planning to furlough between 75 and 100 per cent of their workforce, and a further 34 per cent of businesses are planning to furlough a lower, but non-

³⁹ It is assumed that those working in industries that have been directly affected by social distancing measures (e.g. pubs, hotels, restaurants etc.) are four times more likely to use the scheme than ‘less affected’ employees. And that those working in occupational groups (SOC 5-9) that are less able to work from home are twice as likely to make use of the scheme as the ‘less affected’. Because these industries and occupations are lower paying than average, these assumptions have a small downward effect on the costings compared to if it had instead been assumed all private sector employees were equally likely to use the scheme.

⁴⁰ Office for National Statistics, *Business Impact of COVID-19 Survey (BICS)*, April 2020.

zero proportion of their workforce.⁴¹ Resolution Foundation analysis of these figures implies that up to 48 per cent of private sector employees could be furloughed.

- A recent Chartered Institute for Personnel and Development (CIPD) survey found that 52 per cent of businesses are planning to make use of the JRS.⁴²

The Resolution Foundation has previously estimated that the gross costs of the JRS as implied by the 8 April BCC survey alone are in the region of £30 billion to £40 billion over its initial three months.⁴³ The upper range of this estimate assumes that all BCC survey respondents who have expressed an intention to furlough staff do so for the full three-month period. The lower range – which forms the basis of the three-month scenario here – is predicated on the more optimistic assumption that some staff will be furloughed for a shorter time period.

There is, of course, considerable uncertainty as to the extent to which this will be the case. It is not known how many businesses will find ways to adapt their business models in ways

which would allow them to take staff off furlough within weeks rather than months. And there will also be other businesses not yet furloughing staff and instead cutting hours and running down cash reserves in the hope of weathering a short-term hit to demand, some of which may choose to use the JRS if the shutdown lasts longer than they expected.

Our three-month scenario is costed based on the assumption that a total of 7 million people are on the JRS for a period of three months at a gross cost of just under £30 billion, which nets out at £21 billion once the taxes paid on furloughed wages are accounted for. The one-half take-up assumption for the 12-month scenario is based on the upper end of the BCC and CIPD data about firm intentions, and implies a total of 10 million people being paid through the JRS for a full year at a net annual fiscal cost of £121 billion. All of these are significantly higher than the reported HM Treasury estimate of £10 billion for the cost of the JRS over three months, based on assumption of three million employees (15 per cent of those in the private sector) using the scheme.⁴⁴

⁴¹ British Chambers of Commerce, [BCC Coronavirus Business Impact Tracker](#), April 2020.

⁴² Chartered Institute of Personnel and Development, [1 in 4 employers expect permanent redundancies from coronavirus crisis](#), April 2020.

⁴³ A Verity, [Coronavirus: More than 9 million expected to be furloughed](#), BBC, April 2020.

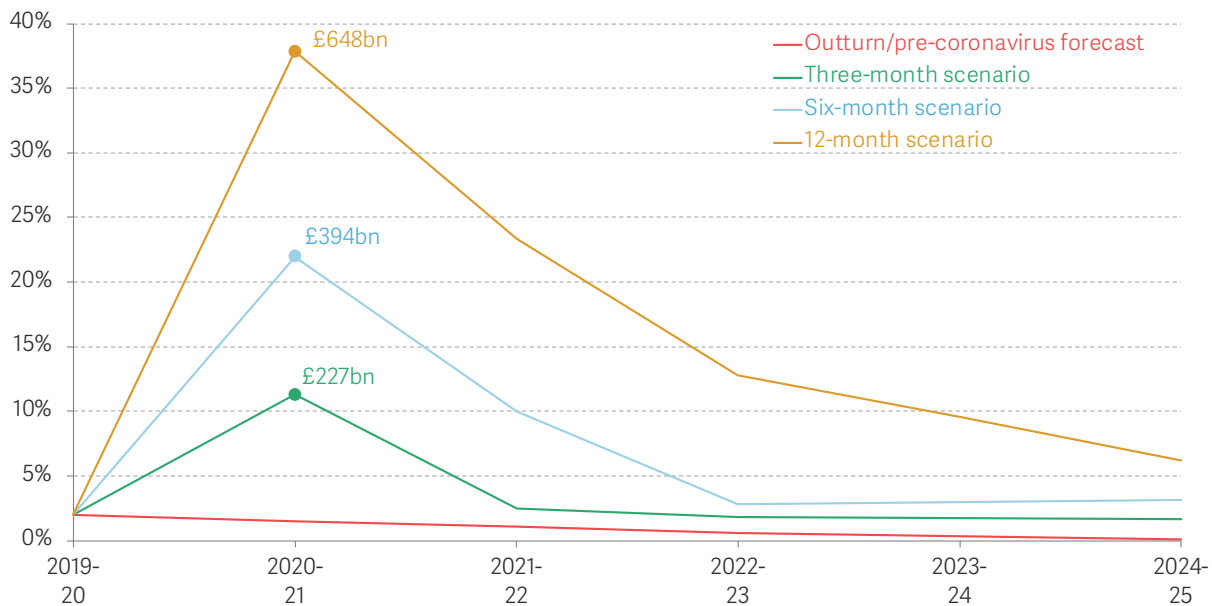
⁴⁴ The Economist, [Recession looms: Covid-19 causes Britain's fastest economic contraction on record](#), April 2020.

Borrowing could be set to rise to new peacetime highs

In all three scenarios, the combination of the acute and severe economic shock and the cost of the large fiscal policy response described above drives borrowing to levels unknown in peacetime (Figure 12).

FIGURE 12: **Public sector borrowing reaches double-digits in all scenarios**

Public sector net borrowing as a proportion of GDP – pre-coronavirus forecast and three scenarios: UK



NOTES: Baseline taken from March 2020 Economic and Fiscal Outlook, excluding resource and capital departmental spending plans.

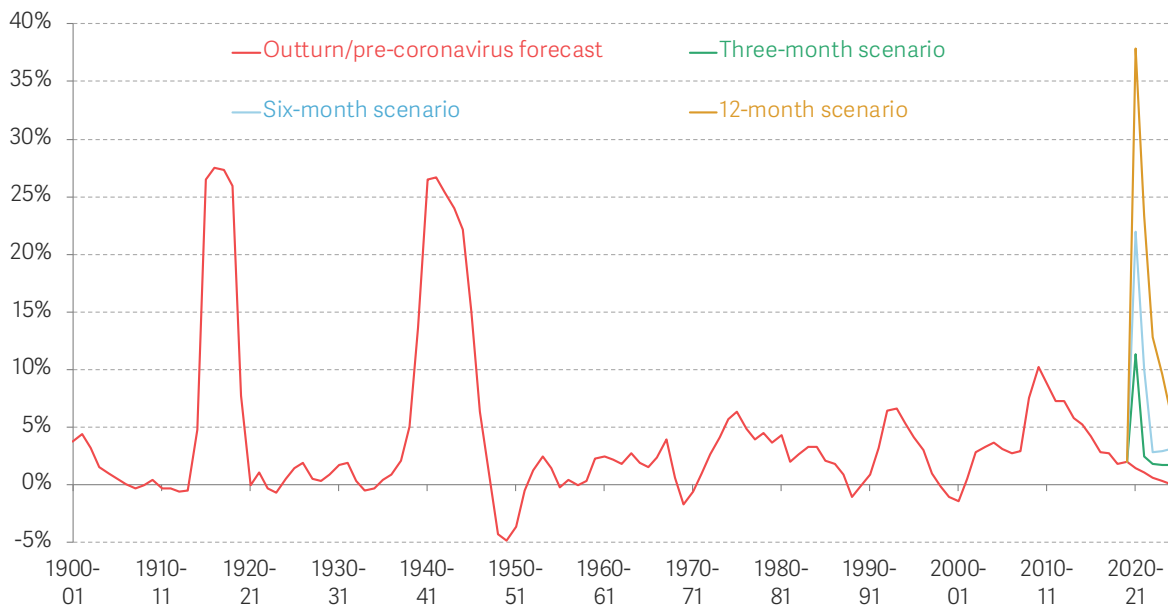
SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

In the three-month scenario, rising spending and falling receipts result in a spike in borrowing of 11 per cent of GDP this year, higher than the peak of 10.2 per cent of GDP reached during the financial crisis (Figure 13).⁴⁵ Over the six-month scenario, higher policy costs and a more severe economic shock result in borrowing reaching 22 per cent of GDP this year, levels last seen during the Second World War. In the 12-month scenario, borrowing peaks at 38 per cent of GDP this year, which would be unprecedented in the UK’s history and around 10 percentage points above the highest annual borrowing ever recorded (of 27.5 per cent of GDP in 1916-17). In all three scenarios, borrowing peaks in 2020-21, but remains elevated at between 2 and 6 percentage points above the baseline by 2024-25. This is primarily the result of the ongoing economic impact on borrowing, even towards the end of the forecasting period.

⁴⁵ This is slightly lower than the borrowing levels reached in the three-month scenario in OBR’s Coronavirus reference scenario, primarily due to a higher baseline (see footnote above), combined with a slightly more expensive costing for the JRS. See: Office for Budget Responsibility, *Coronavirus reference scenario*, April 2020.

FIGURE 13: Public sector borrowing reaches peacetime highs in all scenarios

Public sector net borrowing as a proportion of GDP – outturn, pre-coronavirus forecast and three scenarios: UK

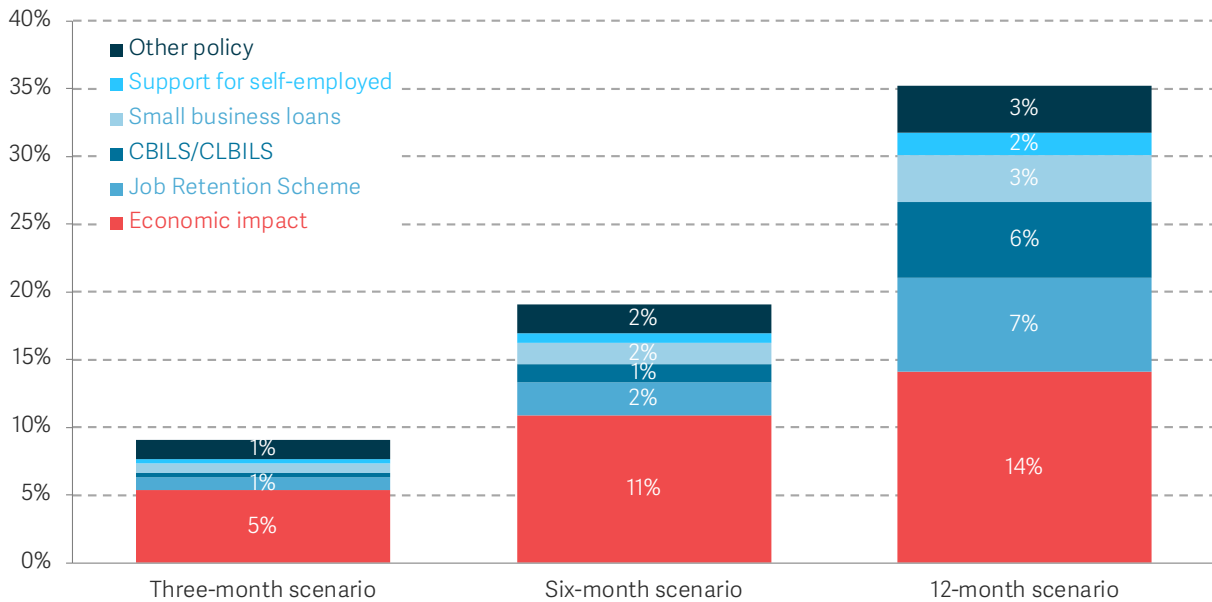


SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

Across the three scenarios, around half of this increase in borrowing comes from the economic impact of the pandemic. The other half derives from the Government’s policy response, which accounts for a growing share of total costs as the shutdown continues. Figure 14 shows the contribution of the various policy measures to the increase in borrowing this year. The Job Retention Scheme is the single largest contributor to increases in borrowing, adding up to 7 per cent of GDP to borrowing in the 12-month scenario. However, the cost of projected write-offs from the loan schemes also increases dramatically across the three scenarios, reflecting the higher projected default rates as the crisis goes on. This adds 6 per cent of GDP to borrowing in the 12-month scenario.

FIGURE 14: The coronavirus policy response accounts for half of the rise in borrowing

Economic and policy impacts on public sector net borrowing as a proportion of GDP: UK, 2020-21



NOTES: 'Other policy' includes all other policy measures impacting borrowing, set out in Table 3.
 SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

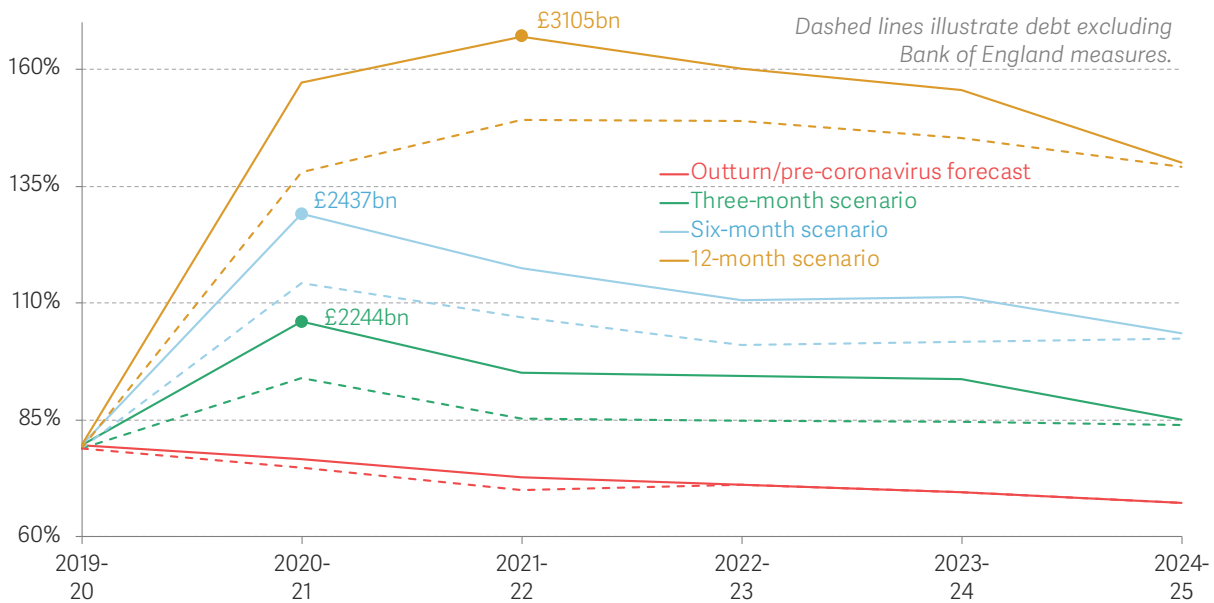
Government debt rises above 100 per cent of GDP in all scenarios

The spike in borrowing pushes debt above 100 per cent of GDP in all scenarios.⁴⁶ As illustrated in Figure 15, public sector debt rises dramatically in all three scenarios. This is partly a result of the increases in borrowing shown above, but also as a result of Bank of England schemes, including the TFSME and CCFF. These are financed through the creation of central bank reserves, which are accounted for as public sector debt in government-finance statistics. In the three- and six-month scenarios, debt reaches a peak this year, falling from 2021-22 onwards, as the schemes close and the economic impact becomes less severe. In the 12-month scenario, debt does not reach a peak until 2021-22, given assumptions that schemes such as the CCFF will remain open for longer, but begins to fall after this point as a proportion of GDP. This is due to slower GDP growth by the end of the forecast than the rises in nominal debt.

⁴⁶ The path of debt in the three-month scenario presented below is higher than that in the OBR's Coronavirus reference scenario as a result of three differences in assumptions. The first is the full take-up of the Bank of England's TFSME scheme in the scenario below, adding £200 billion of debt in 2020-21 as opposed to £137 billion in the OBR scenario, as well as the inclusion of costings for the CBILS and CCFF schemes. The second is a more pessimistic path of nominal GDP over the scenario below, which results in a lower denominator than the OBR scenario, and therefore a higher debt-to-GDP ratio. Third, the scarring on the economy set out in Section 1 is absent in the OBR scenario, but adds significantly to debt towards the end of the three-month scenario below, given the continued economic hit to revenues in the later years of the forecast. See: Office for Budget Responsibility, [Coronavirus reference scenario](#), April 2020.

FIGURE 15: Public sector debt could rise to levels not seen for generations

Public sector net debt as a proportion of GDP, including and excluding Bank of England measures – pre-coronavirus forecast and three scenarios: UK

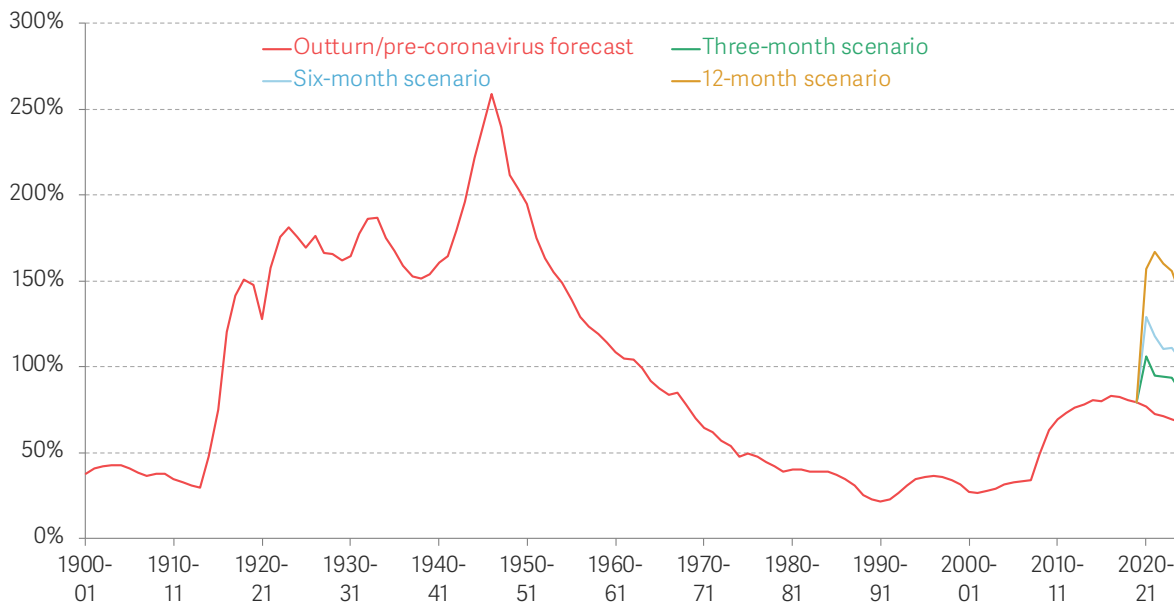


NOTES: Bank of England measures include the Term Funding Scheme (in the baseline), additional quantitative easing, the Covid Corporate Financing Facility and the TFSME.
 SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

In all three scenarios, public sector net debt reaches levels not seen for generations. In the three-month scenario, debt rises to 106 per cent of GDP, over 20 per cent of GDP higher than the peak of 83 per cent of GDP reached in the wake of the financial crisis. This is a level of debt last reached in the early 1960s (Figure 16). The six- and 12-month scenarios entail debt peaking at 129 and 167 per cent of GDP, respectively. These are levels not seen since the decade following the Second World War, during which debt reached an all-time high of 259 per cent of GDP in 1946-47 before falling back to 129 per cent of GDP by 1956-57.

FIGURE 16: Debt is forecast to increase above 100 per cent of GDP in all scenarios

Public sector net debt as a proportion of GDP – outturn, pre-coronavirus forecast and three scenarios: UK



SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

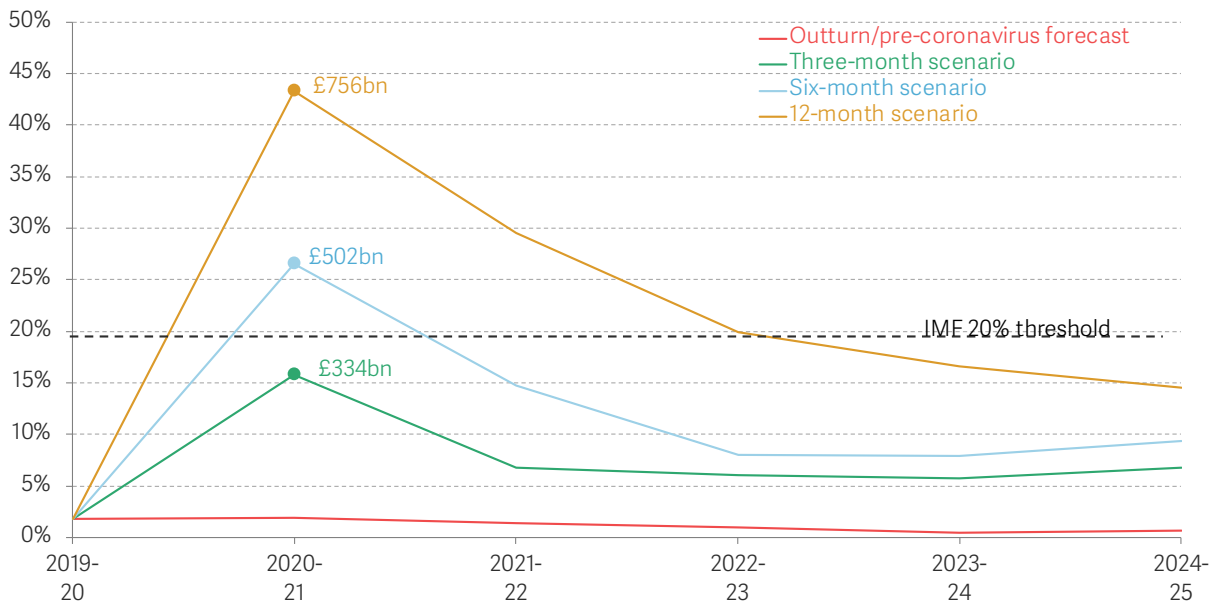
A key near-term challenge will be mobilising the liquidity required to finance the Government’s yawning fiscal deficit described above, and rollover its existing debts. The Government’s annual gross financing requirement includes both the cash required to cover the difference between annual cash receipts and payments, as well as the additional financing needed to redeem previously issued debt which matures in that year. The gross financing requirement is already elevated over the next few years because of the need to roll over the large stock of gilts issued in the wake of the financial crisis, which had an average maturity of around 14 years. In the three-month scenario, the gross financing requirement in 2020-21 reaches £334 billion, or 16 per cent of GDP. This rises to 27 per cent of GDP in the six-month scenario, and 43 per cent of GDP – or more than double the International Monetary Fund’s benchmark sustainable level of 20 per cent.⁴⁷

The gross financing requirement falls from 2020-21 onwards across all three scenarios, with the unwinding of the CCFF and policy adding less to borrowing towards the later years of the forecasting period. However, it remains elevated above the baseline, by around 6 to 14 per cent of GDP by the end of the forecast, reflecting the significantly higher debt stock in the aftermath of the crisis, and the ongoing economic impacts on borrowing.

⁴⁷ International Monetary Fund, *United Kingdom – 2018 Article IV Consultation*, November 2018.

FIGURE 17: **Gross financing requirements for 2020-21 reach over £330 billion**

Central government gross financing requirement as a proportion of GDP – pre-coronavirus forecast and three scenarios: UK

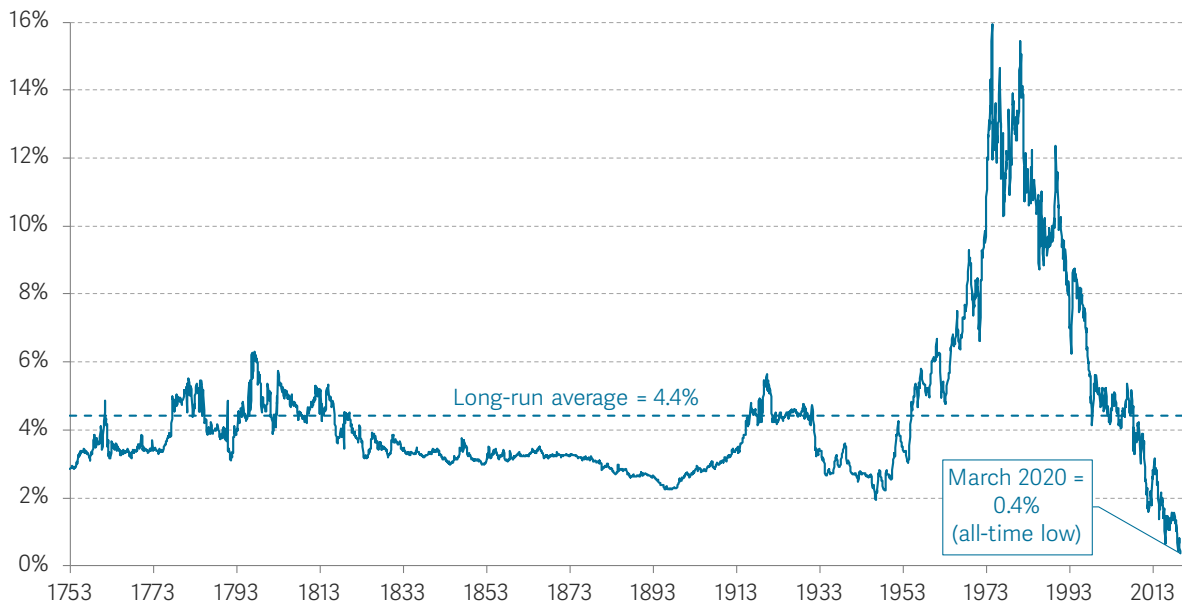


SOURCE: RF analysis of OBR, Economic and Fiscal Outlook, March 2020; and sources for economic and policy costings for scenarios given above.

The sustainability of high levels of public sector debt also poses longer-term challenges

While coronavirus looks set to push public sector net debt up to levels not seen for several generations, historically low borrowing costs actually reduce the annual cost of servicing that debt compared to what was forecast prior to the outbreak. Gilt yields have fallen significantly since the outbreak, as investors seek a liquid and safe store of value, and are now at all-time lows (Figure 18).

FIGURE 18: The Government’s cost of financing has fallen to new all-time lows
 UK government bond yields (10-year benchmark where available)



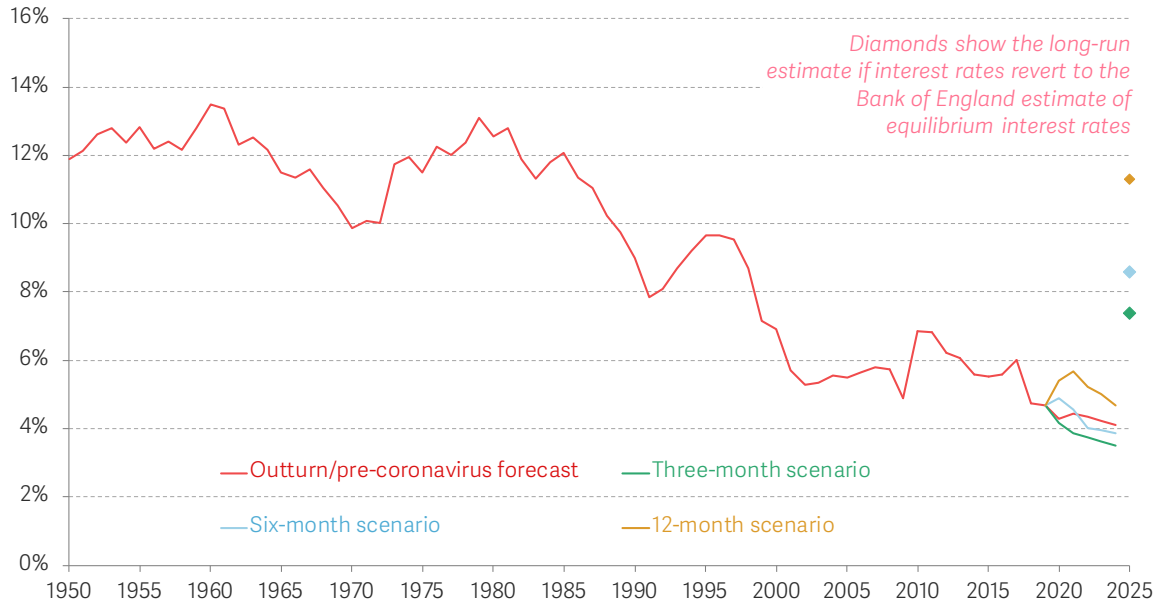
NOTES: Between 1753 and 1934 the source is consol yields; from 1935 to 1969 it is bonds of approximately 10-year maturity.
 SOURCE: RF analysis of Bank of England.

Figure 19 illustrates the Government’s measure of the affordability of its debt, the ratio of debt interest payments to public sector revenues, under the different scenarios. In both the three- and six-month scenarios, this ratio remains below the 2020 Budget forecast and below levels seen during the financial crisis. And while there is a one-year spike in the ratio in the 12-month scenario, all three scenarios entail the debt-interest-to-revenue ratio falling to a new historic low by the end of the forecast period. This is the result of the fall in gilt yields and an assumption of continued low inflation keeping the cost of index-linked gilts affordable.

While these elevated debt levels appear affordable over the medium term, this holds true only if interest rates remain at their current historic lows. Should interest rates return to their estimated equilibrium level or inflation expectations rise, debt interest costs would eventually exceed the 6 per cent of revenue threshold set in the 2019 Conservative Manifesto. The diamonds in Figure 19 illustrate the effect on the debt-service-to-revenue ratio of a return to rates of 2.25 per cent (the Bank of England estimate of equilibrium interest rates); in the 12-month scenario, the debt-service-to-revenue ratio would climb substantially to 11.3 per cent – a level last seen in 1986. So, while the Government certainly can weather the significant increases in its debt stocks that the pandemic demands in the short term, it will significantly increase its exposure to interest rate risks in future. This means that the UK will become increasingly reliant on a low interest rate environment continuing.

FIGURE 19: Debt-service-to-revenue ratios reach a new low across all three scenarios

Public sector debt interest as a proportion of public sector revenue – outturn, pre-coronavirus forecast and three scenarios: UK



NOTES: The underlying scenario forecasts are based on gross public sector net debt interest excluding the Bank of England; they have been transformed proportionally to be consistent with public sector net debt interest and so we do not explicitly model the dynamics of net interest directly. The interest rate differential between the bank rate and interest rates for the TFSME lending and CCFF purchases is assumed to be zero, absent more detailed available data.

SOURCE: RF analysis of OBR, various; Bank of England.

Section 4

Implications for policy

The scenarios we have set out illustrate the enormous challenges facing policy makers seeking to balance public health, economic, and fiscal pressures. While much attention is focused on the trade-off between health and economic outcomes, the relationship between the two is complex and interrelated. But the longer the outbreak continues, the starker the tension between health and economic objectives is likely to become.

These tensions can, to some extent, be alleviated by changes to both microeconomic and macroeconomic policies. At the microeconomic policy level, changes to the Government's economic support package could help to support the safe resumption of some forms of economic activity in the near term, and prevent state support from becoming a burden on the economic recovery once public health restrictions are lifted. These changes include adjustments to the Job Retention Scheme to allow recipients to engage in safe part-time work; and adjustments to the business support schemes to reward firms for adapting their business models to safely restart operations and rehire their workforce once social restrictions have been lifted. In addition, the possible scale of the rise in unemployment in a more long-lasting crisis means active labour market policies will need to be ramped up.

At the macroeconomic policy level, the Bank of England can temporarily alleviate some of the significant pressure that will remain on the public finances during the period of lockdown. But it is important to find ways to do this without jeopardising the institution's policy independence, or mandate. Looking beyond the near-term temporary pressures on the public finances, there is little monetary policy can or should do to help the Government cope with the cost of any structural deficit and the elevated stock of debt once the outbreak has run its course. So, the Government needs to commit to restoring fiscal sustainability once the outbreak is over by setting out a revised fiscal framework. This commitment would be underscored by the announcement of specific measures that help to deliver these objectives, while sharing the burden of adjustment across society. These might include a tax surcharge

on higher earners who were able to continue working full time during the lockdown and recovery.

Coronavirus has delivered an unprecedented shock to the economy and public finances

In an effort to save lives and contain the spread of the virus, governments in the UK and around the world have imposed a set of social distancing measures, and other public health restrictions, which substantially curtail their citizens' ability to work, consume, and socialise. These social distancing measures have delivered a negative shock to the UK and global economy exceeding that experienced during the financial crisis.

The Government has also taken a second key policy decision, to socialise much of the economic cost of the outbreak through a package of fiscal support measures that are unparalleled in scale and scope in peacetime. With monetary policy constrained and less effective given the nature of the crisis, the Bank of England has played a supporting role by cutting interest rates to all-time lows and extending quantitative easing (QE) and credit easing programmes.

Policy makers do face real tensions and challenges, but it is crucial that the right lessons are drawn

As illustrated in the previous sections, the combined impact of these two policy choices presents a challenging outlook for the UK economy and public finances. But it is important that the right lessons for policy makers are drawn from these projections. The current debate risks being polarised between those concluding that the current lockdown must be lifted immediately so economic activity can return to normal, and those who claim that the economic costs imposed by social distancing measures can be borne without creating new challenges.

In reality the relationship between the Government's public health and economic objectives is less stark, and more complex. On the one hand, ending the lockdown prematurely could lead not only to more deaths, but also to a need for a re-imposition of even stricter and longer-lasting restrictions later. Our scenarios show that this would come at an even higher economic and fiscal price. On the other hand, keeping lockdown measures in place for a protracted period exposes the public finances to growing risks. Such an approach would entail significant financial hardship for those whom the Government's schemes inevitably fail to reach, encouraging them to find ways of circumventing restrictions to resume some level of economic activity, however unsafe.

The tensions between public health and economic policies are real, but overstated

To the extent that the trade-offs between the Government's public health and economic and fiscal policy objectives are real, they are probably not as stark as some have portrayed them to be, for several reasons:

- First, effective public health policy is actually conducive to better long-run economic and fiscal outcomes. Rapid containment of virus transmission through social distancing and/or an effective testing and tracing regime, and rollout of an effective antibody test and/or vaccines to allow people to return safely to work, would help to reduce the length and severity of the economic downturn.
- Second, even if social distancing restrictions were lifted immediately, in the absence of effective testing or a vaccine and against a backdrop of high or rising case numbers, many individuals would choose to continue to minimise social interaction in order to reduce the chances of becoming infected. A rapid return to life and business as usual before the outbreak is over is not available as a policy choice.
- Third, both the public health and economic policy responses are not binary, but scalable, and can be calibrated to changing circumstances and the balance of risks. Public health restrictions can be partly loosened as health service capacity and knowledge of how to treat those with the disease improves. This could allow those at lower risk (primarily younger people) and those who have had the disease to return to work, while those at higher risk remain sheltered. Such an approach would need to be supported by the development of effective large-scale testing capabilities.⁴⁸

The task is to manage, rather than overplay, tensions between public health and economic objectives

To the extent that some residual tensions remain between the Government's public health and economic policies, these can be partly alleviated through improvements in the design of specific interventions to reduce the immediate and long-term economic costs of necessary public health measures. These include:

- Revisiting the parameters of the Job Retention Scheme to allow it to compensate those working reduced hours. At present the scheme only supports those ceasing work for their current employer entirely. This risks deepening the immediate

⁴⁸ For a discussion of the importance of the testing regime for opening up the economy, see: I Mulheirn, [Suppression Exit Strategies: Options for Lifting Lockdown Measures in the UK](#), Tony Blair Institute for Global Change, April 2020.

economic contraction by providing a strong incentive for workers to seek to stop working altogether in order to benefit from the scheme. It would be better, economically and fiscally, if furloughed individuals could engage in part-time work that can be performed safely. Reducing the generosity of salary support under the Job Retention Scheme from 80 per cent to, for example, two-thirds of previous earnings would help to offset some of the costs of this change, and reduce fraud.

- Focusing the Self-Employed Income Support Scheme on self-employed people who have actually suffered material hits to their incomes from coronavirus. This would reduce the significant fiscal deadweight of the scheme, which includes only very minimal provisions around coronavirus-related impacts and this in practice can provide grants to most self-employed people.
- Actively supporting sectors to put in place ways of working that allow some economic activity to take place, consistent with public health objectives. Sector-specific guidelines should result in the Government providing more clarity about what activity firms and workers should continue with, as well as what they should not be doing.
- Revisiting the terms of government-guaranteed loans to ensure they support firms during the crisis and recovery. Loans, or elements of them, used to adapt operating models to safely resume some production during the period of lockdown should be converted into grants. Loan repayment terms should be made contingent on the lifting of public health restrictions and the level of firms' income, to prevent these debts acting a drag on the economic recovery. Finally, converting some guaranteed loans into grants after a period of time for firms that rehire their workforces once public health restrictions have been lifted would also discourage employment retrenchment once the Job Retention Scheme is phased out.

Policy makers need to adapt to a new era of elevated unemployment

Despite steps to protect people's jobs via retention and income support schemes, unemployment is rising as a result of our attempts to stop the spread of the virus. Policy makers will need to act to minimise the scale and duration of these unemployment increases, particularly under a longer-lasting lockdown scenario.

Unemployment will of course recover with the economy, but tends to do so more slowly than other indicators. This matters because a body of evidence shows that people who experience sustained periods of unemployment suffer scars to their employment prospects and earnings for many years.⁴⁹ That is one of the reasons why the UK has

⁴⁹ S Clarke, *Growing Pains: The impact of leaving education during a recession on earnings and employment*, Resolution Foundation, May 2019.

shifted towards a more 'activational' welfare system over recent decades, with a focus on behavioural conditions, job-search assistance, training, and maternity rights and childcare support. This policy approach is widely regarded as successful, and stands in stark contrast to the approach in the US.⁵⁰

With very low unemployment in recent years, these activities have perhaps been less of a priority, but the current crisis creates an imperative that we return to an activation-focused stance as we exit the severe phase of the lockdown. Implementing such an approach is not the immediate priority: the roughly 11,000 Jobcentre Plus 'work coaches' have been redeployed to process the high volume of claims,⁵¹ available vacancies have reduced substantially,⁵² and conditionality has rightly been de-prioritised. But as the rate of new benefit claims processing slows and vacancies become more widely available, the focus needs to shift rapidly to moving people back into work as quickly as possible. The broad shape of this approach should include:

- A return to a strong focus on **job-search support for all unemployed claimants**, including in the earliest phases of a claim. This should include more work-focused support than has recently been available to UC claimants, where the emphasis has been on conditionality-driven behavioural checks. In other words, prioritising activation will require not just going back to where we were before this crisis, but working more intensively. Jobcentre Plus staff numbers have fallen by almost one-third since 2010⁵³ – this trend should be rapidly reversed.⁵⁴
- An expanded offer to unemployed claimants, including **training, advice and guidance**. This should include pre-employment, job-focused training that rests on a strong evidence base; expanded capacity for careers and training advice services; and an interventionist approach with the employees of firms that go bust or significantly wind down activities.
- **Job guarantees delivered via wage subsidies**, targeted at young people whose employment prospects are to date worst affected by this crisis. Such an approach would build on the lessons of previous subsidised job programmes including the Future Jobs Fund, which facilitated funded, six-month paid jobs for young adults in the aftermath of the financial crisis, with sizable positive effects.⁵⁵ This approach would explicitly recognise that while the JRS provides significant support to those

⁵⁰ A Corlett & P Gregg, *An Ocean Apart: the US-UK switch in employment and benefit receipt*, Resolution Foundation, June 2015.

⁵¹ T Wilson et al., *Getting Back to Work: Dealing with the labour market impacts of the Covid-19 recession*, Institute for Employment Studies, April 2020.

⁵² J Leslie, *The economic effects of coronavirus in the UK: Utilising timely economic indicators*, Resolution Foundation, April 2020.

⁵³ L Gardiner, *The shifting shape of social security: Charting the changing size and shape of the British welfare system*, Resolution Foundation, November 2019.

⁵⁴ T Wilson et al., *Getting Back to Work: Dealing with the labour market impacts of the Covid-19 recession*, Institute for Employment Studies, April 2020.

⁵⁵ Department for Work and Pensions, *Impacts and costs and benefits of the Future Jobs Fund*, November 2012.

already established in jobs, based on their pre-crisis wages, it does less or nothing for the millions of young people in early careers and new labour market entrants who would reasonably have expected to find jobs or experience steep wage progression this year.

Monetary policy must play an important role in temporarily supporting essential fiscal activism

To the extent that the disruption to economic activity and provision of support to firms and individuals place immediate pressures on the public finances, the Bank of England has a key role to play in making sure that the Government can meet those pressures without jeopardising its independence or undermining its mandate. In previous recessions, monetary policy has taken the lead in supporting the economy during periods of economic turmoil. During the financial crisis for example, the Bank of England's Monetary Policy Committee (MPC) cut its policy rate by more than five percentage points. But this time is different. With policy rates already as low as the MPC is willing to set them, the Bank is unable to provide the same large-scale support to the economy. This means fiscal policy has had to play a lead role in supporting the economy in the wake of the coronavirus outbreak. Fiscal policy is also better placed to provide targeted support, given the sectorally differentiated shock to both supply and demand.

In the midst of the outbreak, monetary policy can help support the Government in its task by ensuring that fiscal support does not need to be withdrawn because the Government loses access to financing on affordable terms. As discussed above, an outbreak lasting more than three months would require the Government to borrow at levels seen only in wartime (and with support from the Bank of England then, too). The Bank can help the Government to meet its temporary large financing needs during the outbreak by:

- Maintaining the accommodative stance of monetary policy, including keeping rates at their all-time lows and continued QE operations, consistent with Bank of England's monetary policy remit;
- Being prepared to play the role of market maker of last resort if market functioning deteriorates, consistent with the Bank of England's financial stability objectives; and,
- Providing temporary financing directly to the Government in the event that the primary government debt market is unable to mobilise the necessary liquidity.

While the first two interventions are consistent with the Bank's core objectives, and so should pose relatively few risks to central bank independence, direct monetary financing

to Government is both novel (at least in this century) and carries with it the risk of a perceived reduction in Bank of England independence. Below we discuss steps that can be taken to minimise these risks.

Monetary financing of fiscal policy needs to be carried out within a transparent framework

It is important to keep in mind that monetary financing is not costless, and comes with risks.⁵⁶ Indeed, such measures could prevent monetary policy from supporting the economy effectively if the risks to inflation crystallise, or if steps to support fiscal policy are interpreted as the exertion of fiscal dominance. In both cases, such a policy could be part of a pattern that leads to a de-anchoring of inflation expectations if people come to believe that monetary policy is no longer set to achieve the MPC's inflation target. To mitigate these risks, the conditions under which the Bank of England could provide such support should be set out publicly.⁵⁷ Those conditions should include:

- That direct financing is provided solely to meeting the Government's temporary financing needs related to the outbreak and associated disruption of economic activity, and should be consistent with meeting the inflation target;
- That both the Bank and the Treasury should be able to call a unilateral halt to the arrangement at any time; and,
- That the Government will return to market-based financing as soon as market conditions allow.

The Government needs a new fiscal framework for the post-outbreak recovery period

The coronavirus outbreak is likely to leave the Government with a sizeable deficit and a greatly elevated stock of debt, leaving the public finances much more exposed to a sudden increase in interest rates or rise in inflation. In these circumstances, it can be tempting for governments to continue to rely on their central banks to affordably finance what becomes a structural deficit – either through continued direct monetary financing or pressure to keep interest rates low. In the UK, a permanent return to the so-called 'fiscal dominance' of monetary policy would risk an increase in inflation. In addition, it would prove to be self-defeating fiscally, given that inflation-linked debt accounts for

⁵⁶ Despite these risks, similar policies have been advocated by some of the world's best known economists. See, for example: C Bean, [The economics of coronavirus](#), LSE Business Review, March 2020; O J Blanchard, [Monetisation: do not panic](#), Vox EU, April 2020; J Galí, [Helicopter money: the time is now](#), Vox EU, March 2020; and L Reichlin, A Turner & Michael Woodford, [Helicopter money as a policy option](#), Vox EU, September 2019.

⁵⁷ For a discussion of these conditions, see: J Smith & T Yates, [Helicopters on standby?: With rates at all-time lows, the Bank of England needs a different playbook for this crisis](#), Resolution Foundation, March 2020.

25 per cent of the Government's total outstanding debt stock. Both the Treasury and the Bank of England should have an incentive to end monetary financing of deficits as quickly as possible, in order to keep inflation expectations firmly anchored around the 2 per cent target.

While some have been quick to claim that the coronavirus outbreak has sounded the death knell of fiscal rules, it actually makes having a set of long-term fiscal objectives all the more important. It is only by making a credible and binding commitment to return its deficit to more sustainable levels that the Government can demonstrate to markets and the public that it will not continue to rely on monetary financing or interest rate suppression to meet its liquidity needs, or to keep its debt serving costs affordable.

Therefore, fiscal policy needs to commit to returning the public finances to a sustainable trajectory once the coronavirus outbreak is over, social distancing restrictions have been eased, and the economy is recovering. Starting from a position in which the Government does not have an operational set of fiscal rules, this would require the articulation of a new fiscal framework which should have the following features:

- A credible long-term objective of returning the public finances to a safe and sustainable position;
- A medium-term target that translates that objective into a path for some measure of the deficit over the five-year forecast horizon; and
- A set of transparent conditions under which the framework becomes applicable, linked perhaps to the lifting of public health restrictions and the restoration of the economy to sustained growth.

Based on previous Resolution Foundation work, an example of a revised fiscal framework achieving these objectives would be one that:⁵⁸

- Stabilises and then improves net worth within five years of the end of the outbreak and restoration of sustained growth. Given the potential for the Government to be forced to acquire a large stock of private sector assets and liabilities during the pandemic, a focus on managing not only the stock of debt but also the Government's wider balance sheet is desirable;
- Keeps the gross debt-interest-to-revenue ratio below 10 per cent at all times. This would ensure that the Government takes timely action to reduce its liabilities if borrowing costs begin to rise; and,

⁵⁸ See: R Hughes, J Leslie, C Pacitti & J Smith, [Totally \(net\) worth it](#), Resolution Foundation, October 2019.

- Returns the current budget to surplus within five years of the end of the outbreak and restoration of sustained growth. This would allow the Government to borrow to invest in infrastructure and other assets that help support the post-outbreak economic recovery.

Any fiscal consolidation should ensure that the burdens of adjustment are shared

This Government's commitment to this new framework would be helpfully underscored by the announcement of specific measures that help to deliver its fiscal objectives. The economic impact of the current crisis is being felt very unevenly, with lower earners and the young much more likely to lose their jobs. By contrast, many higher earners can work from home, protect their incomes and actually benefit from falling outgoings on things like transport. A tax surcharge on higher earners who were able to continue working full time during the lockdown and recovery would not only support the credibility of the Government's commitment to restoring fiscal sustainability, but also ensure that all citizens share the burden of restoring the economy and public finances to health.

The Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged.

We do this by undertaking research and analysis to understand the challenges facing people on a low to middle income, developing practical and effective policy proposals; and engaging with policy makers and stakeholders to influence decision-making and bring about change.

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