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Q2 2020 EH Research Article: Responding to COVID-19 by prioritising sustainability and wellbeing in the recovery

Executive Summary

The COVID-19 pandemic is changing the way that we live our lives. As time passes it is becoming apparent that even once the lockdown policies have been eased and some level of normality has been resumed, the new world that we live in will be different to the one we knew before. This article focuses on emerging trends that have largely taken place as a result of COVID-19, or in some cases the pandemic has simply accelerated a trend that was already occurring. We then look to offer a range of public policy solutions for the recovery period where the overarching objective is to increase wellbeing in society in a sustainable way.

But first, before we get to the policy solutions, briefly, what are the main economic and wellbeing effects that we have seen as a result of COVID-19? In 2020, it is expected that the fall in overall economic output is going to be larger than during the financial crisis in 2008. Much of this is due to the level of decline in economic activity as a result of the UK governments lockdown policy. This was a necessary decision in order to reduce the spread of the virus and ensure the NHS still has capacity to treat those that have unfortunately caught the disease. However, it has to a significant liquidity shock for both households and businesses. Levels of consumer spending have declined rapidly, and large portions of the labour market are now out of work. Alongside sharp falls in measures of economic performance, measures of wellbeing have declined rapidly as well. Increases in measures of uncertainty have mirrored increases in anxiety. While, social distancing policies are having a large impact on measures of happiness.

The UK government responded to the shock posed by COVID-19 with a range of policy interventions to provide funding to those that have been most impacted. At a macro level, the long-lasting effects of this crisis will be more pertinent if economic activity does not respond quickly after the government's schemes have ended. Large portions of UK businesses have limited cash reserves to fall back on in a scenario where demand remains subdued for some time. However, even if the recovery period is strong there will still have been some clear winners and losers during this crisis. Younger workers, those on lower incomes and those with atypical work contracts are the ones that have been most heavily impacted. Whilst those on higher incomes, that are more likely to be able to work from home, have increased their household savings during this period, due to less opportunities to consume.

The policy solutions outlined below aim to be complementary of one another and look to amplify observed trends that are positive for wellbeing and to provide intervention where trends have been negative for wellbeing:

1. Climate at the centre of the response: This is less a policy recommendation and more a theme for the response. However, our message here is that increased public spending projects, focused towards green initiatives should be combined with a coherent carbon tax policy which influences incentives and helps to support the UK's transition to a low carbon economy.
2. Labour market reforms: The government should look to develop a centralised job retraining and job matching scheme that supports workers most impacted by COVID-19, helps to encourage structural transformation towards emerging industries and increases the amount of highly skilled workers in the UK workforce.
3. Tough decisions on business: Some businesses will require further assistance from the UK government in the form of equity funding, rather than the debt funding seen so far. This should be done on a conditional basis, requiring all these businesses to comply with the UK's climate objectives and should only be provided to businesses in industries that are expanding or strategically important to the UK economy.
4. Modernising the regions on a cleaner, greener and higher level: Looking to build on the governments 'levelling up the regions' policy to reduce regional inequalities, our policy consists of government funded infrastructure policies that include green investments for regions outside of the UK's capital.
5. Harbouring that rainbow effect: Building on the increased community spirit that has been observed during the pandemic, this policy solution looks to increase localised community funding to maintain social cohesion and support those with mental health issues.

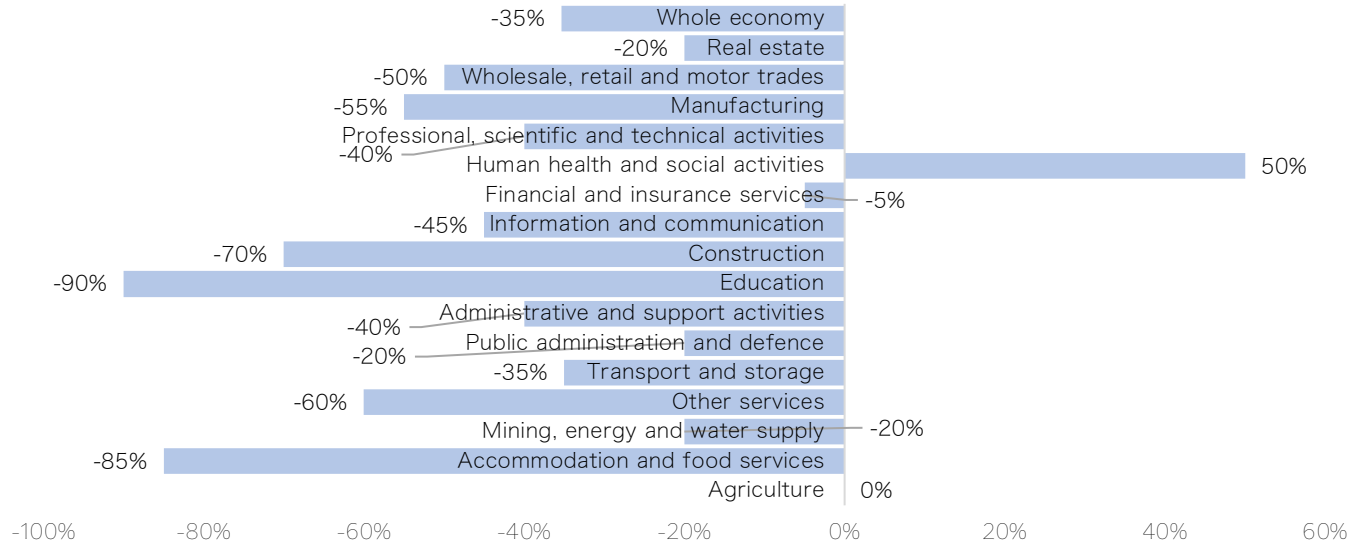
Lastly, as the policy recommendations focus on expanding public investment to support the recovery, it is important to consider what this means for public debt sustainability in the UK. The conclusion is that as a result of the low interest rate environment, the most efficient way out of this recession is to borrow and spend on projects that will increase resilience to future shocks and support the UK's transition to a low carbon economy.

Section 1: Current economic effects of COVID-19

The COVID-19 pandemic is unprecedented in its economic effects. Governments across the world have made the decision to shut off entire sectors of the economy and to provide government support to mitigate negative effects. This report will be focusing on the situation in the United Kingdom; however, the analysis and descriptions will prove to be similar to other advanced economies (AEs).

The pandemic has caused a dramatic shock to the British economy. Economic activity has fallen sharply, household incomes have decreased, and unemployment has risen. This is having a significant negative impact on most sectors of the UK economy (see Chart 1). The housing market was essentially shut down for seven weeks and is currently reawakening. Presently, 20% of UK businesses are temporarily closed or have paused trading. For businesses of all sizes, this economic shock poses liquidity issues in the short term and with economic activity declining at such a rapid pace, extraordinary government policies were required to nullify the initial impact of this shock (see Table 1 in Annex).[1]

Chart 1: Estimated output losses per sector for Q2 2020 from the OBR reference scenario



These policies have been widespread, from supporting household incomes to reducing costs for businesses and providing liquidity support, as well as significantly increasing funding in the healthcare sector in order to directly manage the pandemic.[2] The most popular of the government's schemes has been the Coronavirus Job Retention Scheme (JRS), with 76% of all businesses applying (see Table 1 in Annex). The exact number of workers on the JRS is not certain, but latest estimates show around 7.5 to 8.5 million workers (approximately ¼ of the UK's workforce).[3] New universal credit claims also spiked significantly after the lockdown was announced in late March. This increased public investment alongside falling GDP means the budget deficit (as a % of GDP) has ballooned for the current fiscal year, with current estimates being as high as 15-22% for 2020/21.[4] This will have an impact on the government's public debt burden (discussed in more detail in Box note 1).

The Bank of England (BoE) also responded quickly in order to protect the financial system and to continue to ensure the provision of credit to the real economy. The BoE has taken a variety of measures. These include a cut in the Bank Rate to 0.1%, a large quantitative easing programme (£200bn), expanding its Corporate Bond Scheme and developing a number of liquidity facilities for both financial institutions and corporates.

Despite these policy interventions from both the UK government and the central bank, key economic indicators have presented sharp declines, with some falls being to historic lows. For example, the Purchasing Managers Index (PMI) which is a measure of economic activity in the manufacturing and servicing sectors, fell

[1] ONS Coronavirus Business Impact Survey – 4th June 2020 release

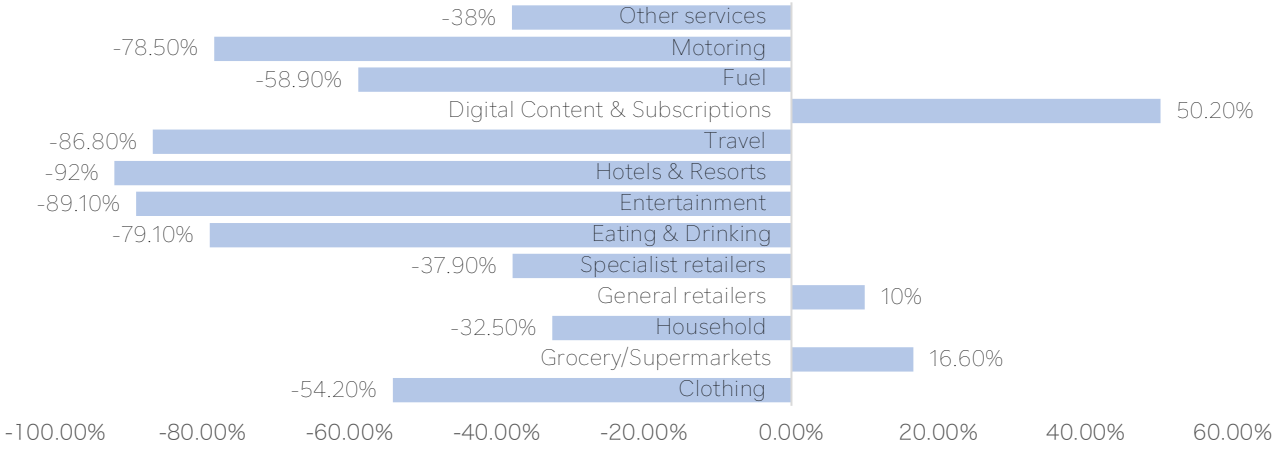
[2] See OBR Coronavirus policy monitoring – last update 4th June 2020

[3] See Resolution Foundation Analysis, PwC Economic Update (4th June 2020)

[4] See PwC Economic Update (4th June 2020)

to its lowest level in April since records began in 1998.[5] In addition, according to a recent study using transactions data, households have also restricted their consumption by estimated 40-50% and the average income drop has been approximately 30%.[6] These reductions in spending are leading to shocks that are not felt equally across the labour market. Based on analysis completed by the Resolution Foundation, lower earners and those with atypical work contracts were most at risk (discussed in more detail in section 3).[7]

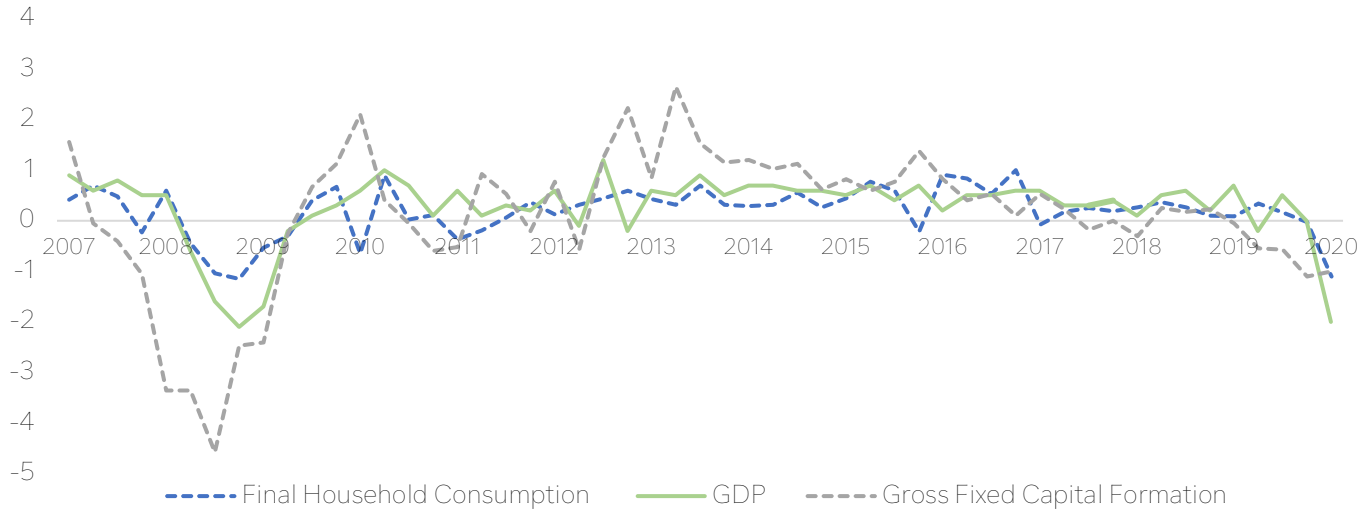
Chart 2: Consumer spending in April 2020 by category, % change year-on-year



Source: Barclaycard UK Consumer Spending Report (released May 2020)

Initial estimates of Q1 UK GDP data were released recently, showing the largest quarterly decline in output since the financial crisis in 2008, even though the UK lockdown was only in place for seven working days in Q1 (see Chart 3). Household consumption also fell by 1% and capital investment fell by 2.3%. The effects in Q2 are expected to be far more pronounced, as covered in section 3 of this paper. Taking all this together, it is clear that the economic effects from COVID-19 are unparalleled and this underlines importance of the policy measures taken thus far in response to the crisis. Looking ahead, as we will discuss, the policy measures coming out of this crisis will be equally as important.

Chart 3: Quarterly growth rates in GDP and key components of GDP



Source: ONS

[5] See IHS Markit PMI data releases

[6] CEPR discussion paper (May 2020). These estimates have been calculated using real-time data up to the 5th May 2020, since mid-March 2020 and this explains the significant variation as compared with UK Q1 household consumption estimates in Chart 3.

[7] Resolution Foundation analysis on the impact of COVID-19 on workers. Note: the percentage of furloughed workers in this sample is lower than seen in analysis with larger samples, however the authors explain some potential reasons for this and the directional analysis of which groups of workers have been most impacted remains useful.

Section 2: Current wellbeing effects of COVID-19

COVID-19 has not only affected the UK economy, but also the emotional and mental wellbeing of its people. The Office of National Statistics (ONS) provides data regarding national wellbeing through surveys which allow researchers to have a snapshot into the UK's wellbeing. Recent surveys have been able to broadly capture the effect of the lockdown measures on wellbeing.

Alongside economic variables, measures of wellbeing have declined rapidly in recent months (See Chart 4). Lockdown has restricted lives for millions of British people. It has also increased uncertainty in relation to the unknown impact that this virus will have on ourselves. This may be directly through our health or indirectly by impacting the health of who we care about, or by influencing key parts of our lives (e.g. work, income, social activities, travel and important life events). For the majority of people in the United Kingdom, never before have their lives been impacted by one simultaneous abrupt event, which has required such an overnight change in how they conduct their lives. From the ONS surveys, people were most concerned about how COVID-19 will impact on their ability to make plans (e.g. both travel plans and life events), their wellbeing, their work (and therefore household finances) and the availability of groceries, medication and other essential items.[8]

Chart 4: ONS wellbeing measures (2011-2020)

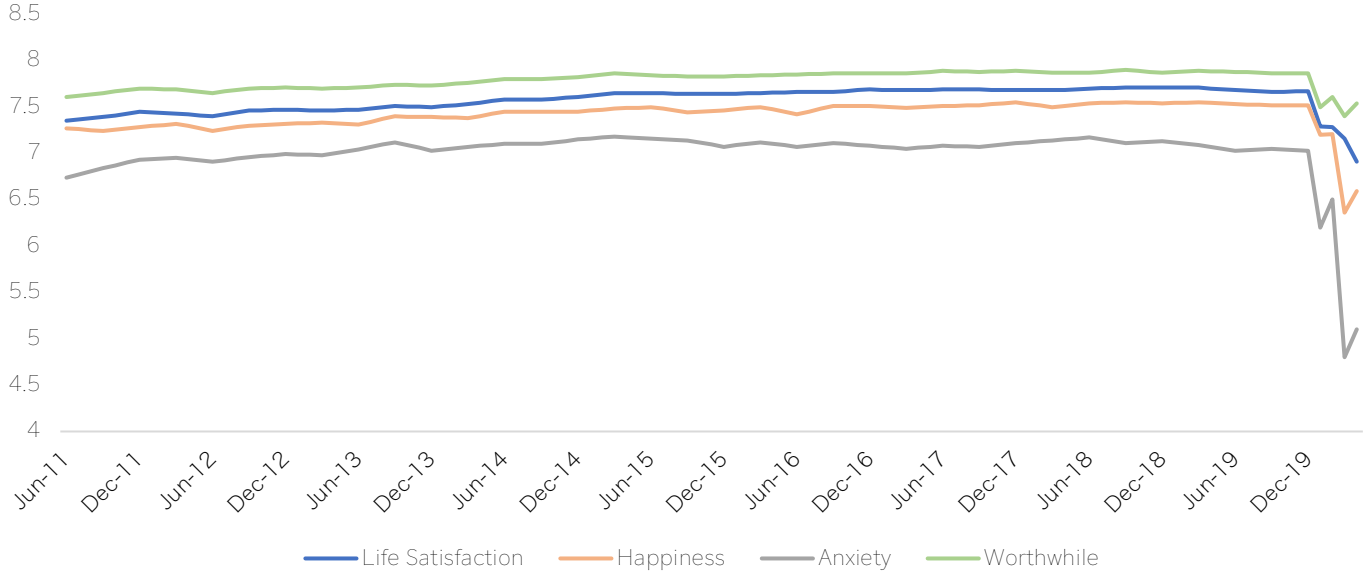


Chart 4 shows that the shorter term ONS wellbeing metrics declined further than the long-term metrics. For anxiety (this measure has been inverted to match against the declines in other variables, so falling values represent an increase in anxiety) and happiness, where large declines were observed, the survey question asks how the person felt yesterday with respect to each factor. For life satisfaction and feeling worthwhile however, where smaller declines were observed, individuals were asked to make an assessment of their life to date. These results are quite intuitive and represent the first significant shock to these variables since the ONS started collecting this data in 2011. One should exercise some caution when reading the data from Chart 4 however, as data from 2011 to 2019 in the chart comes from quarterly surveys of >30,000 people in the UK (this has been extrapolated into a monthly time series), whilst data for 2020 comes from monthly and weekly surveys of just 1,500 people. Therefore, the confidence intervals around the estimates produced in 2020 are wider than for the previous observations. Nevertheless, the results offer an intuitive and informative view of how this pandemic has affected people's wellbeing in the UK. Of course, there are most likely a multitude of other well-being issues that are not being captured by the national surveys. This does not reduce their importance and we should bear this in mind when discussing policy responses, and potential scars or future effects of this crisis.

There is a silver lining to the otherwise dark image of British wellbeing caused by the pandemic. Britons are more likely to believe that after the COVID-19 pandemic is over the United Kingdom will be a kinder and more

[8] ONS wellbeing survey (May 2020)

united place.[9] This comes after increasing polarisation after the Brexit vote in 2016 and led to a low base regarding feelings of unity and kindness in British society. Some communities in the UK have come closer together during the pandemic and a policy solution below looks to continue to build on the recent progress that has been made.

Section 3: Looking ahead for the economy (and wellbeing)

As outlined in Section 1, economic activity as a result of the pandemic has declined at a historic pace. This has already been observed. There remains some uncertainty as to how deep these falls will go, but there is a far greater degree of uncertainty regarding how quickly it will take for the economy to recover.
Models used for forecasting economic variables are calibrated based upon historical events and relationships between variables. This pandemic is creating a type of economic shock that is not comparable to many we have seen before; wars or natural disasters are the closest comparisons. These are known as event driven shocks. They are presenting some characteristics which make modelling this crisis particularly challenging for four main reasons:[10:]

I. The pace and size of change in some economic variables has been entirely unprecedented due to the way that economies have locked down, as shown in section 1.
II. Policy interventions have prevented other economic variables from following the same patterns, meaning some historical relationships have broken down. For example, we have observed large declines in consumption, however unemployment is being kept artificially low due to policies like the JRS. Clearly, economists can override their models' inputs, as for unemployment we have a rough idea of the number of workers on the scheme. Although, it's likely that we care a lot more about those workers that are going to remain out of work when this policy ends, so you may want to just increase the unemployment rate by this much. A good amount of judgement is required to do this, as its highly contingent on how other factors play out.
III. People's behaviour is hard to predict and likely to change. This is a significant event in everyone's lives and its likely to create changes in the way that people behave. The problem is that there is a big difference between knowing that people's behaviour will change, as compared with knowing exactly how their behaviour changes. Can we expect to see a huge spike in consumption once lockdown subsides as those who have not seen their incomes decline have built up savings? Or, with a greater degree of uncertainty remaining over the future of the world, should we expect consumption to remain subdued for some time as individual's propensity to precautionary save is higher than before the crisis.
IV. Timing with modelling is crucial and this is where some of the greatest uncertainty lies. If we knew how long lockdowns are going to last, whether a second wave is going to take place or how the government plans to structure its exit strategies from lockdown then modelling this crisis would be much easier. The unfortunate truth is that this is where the greatest unknowns come from. For governments of advanced economies managing a pandemic presents a whole new kind of challenge they have not faced before. Their decision making has a direct influence on its citizens lives, as well as citizens livelihoods and this is where dangerous trade-offs presents themselves. Open up the economy too quickly and you risk developing a second wave of infections, potentially requiring a second lockdown phase, which could have more damaging economic and health effects than the first. Or, fail to open up the economy quickly enough, leading to spikes in defaults on loans and insolvencies of businesses, which could trigger further negative externalities across the financial system and subsequently the real economy.

These points are important to consider before going into how we might expect the UK economy, and the wellbeing of its citizens, to recover after this crisis. Economic models remain a useful guide as to what we might expect but there is greater uncertainty regarding their accuracy now more than ever. From the points above, timing is probably what matters the most. The majority of institutions that are producing forecasts generate their base case scenario on the assumption that the UK lockdown lasts three months, followed by three months of easing measures. As chart 5 shows, even using these similar assumptions, estimates of changes in GDP in 2020 range widely. Whilst in all of these cases the contractions in GDP are large by

[9] ONS wellbeing survey (May 2020)

[10] There are several other reasons as well, for example those who do the gathering of information in order to estimate economic variables are struggling to complete the data collection phase due to working/practical challenges that lockdowns pose.

historical standards, most organisations are forecasting relatively strong rebounds to growth in 2021 (see Chart 6) and that the long run implications on GDP will not be hugely significant.[11]

Currently, the range of forecasts shown in Chart 5, essentially presents close to a "best case scenario". Since this is based on current government policies and it is difficult to be more optimistic than three months of lockdown, followed by three months of easing measures. Most of the alternative scenarios highlight additional risks to the downside and it is these scenarios that generate more significant long-run effects.[12]

It is precisely this that is of greatest concern to policymakers, and it is the question they are looking to answer: what are going to be the long run scarring effects from this crisis? Semantics over the size of the peak to trough matter much less in comparison. This is also one of the most difficult questions to answer at the present moment due to the vast number of unknowns. As section 1 explained, the government and the central bank have stepped in to fill the liquidity issues facing both households and businesses and this means thus far, we have observed a limited change in defaults, from already low levels. However, this level of policy support cannot last indefinitely, and the question remains as to what proportion of those currently receiving liquidity support will start to have solvency issues once this support has been removed.

Chart 5: Forecasts for GDP in 2020 (all released in May 2020)

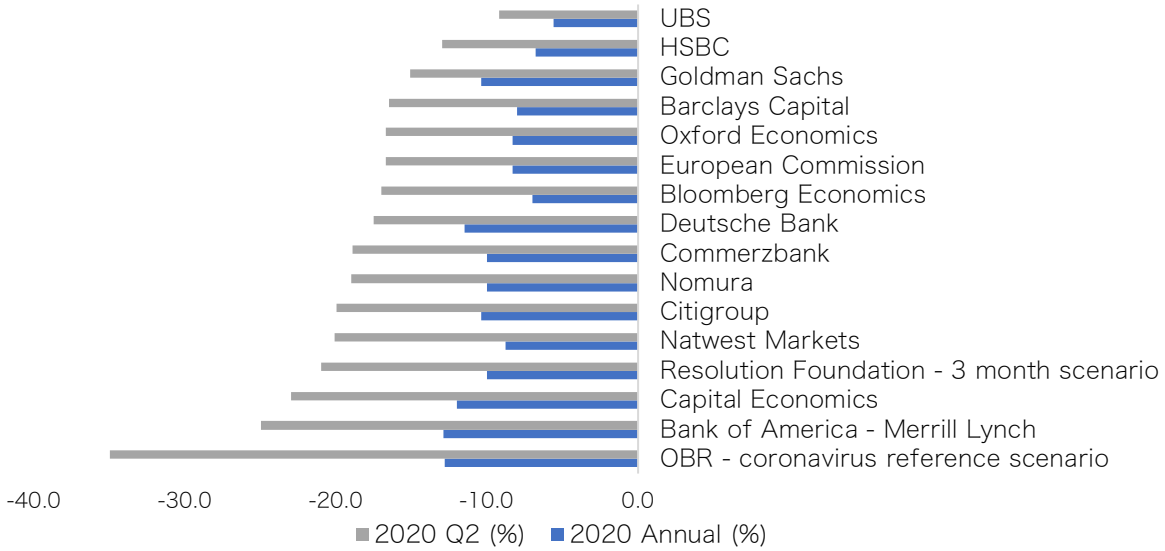
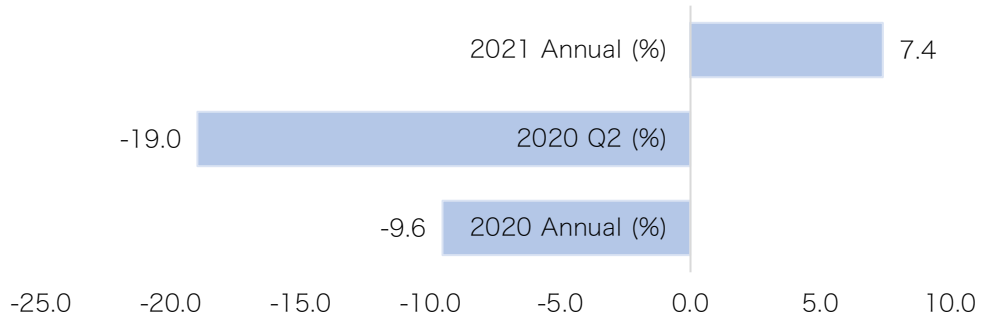


Chart 6: Averages of forecasts for GDP in 2020-21 (all released in May 2020)



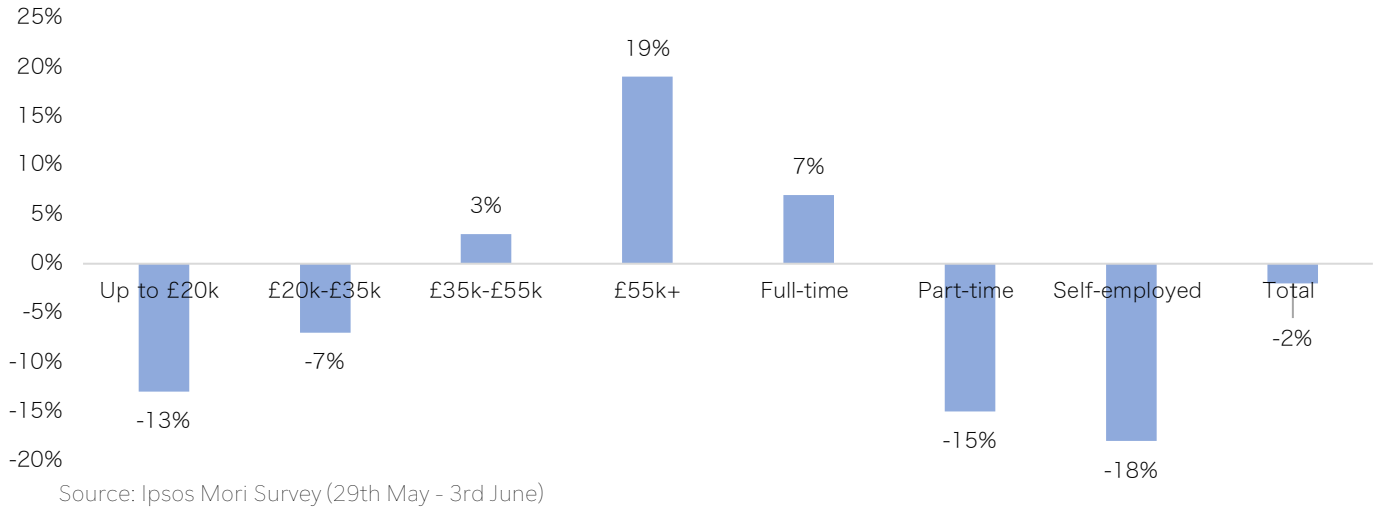
As time passes the evidence with regards to the speed of the recovery is becoming bleaker. At present, it doesn't seem likely without a vaccine (or a robust antibody test) that the economy will be able to return to the levels seen before this crisis began. This is for a number of reasons. First, even with a scaling back of

[11] For example, the Resolution Foundation have estimated that in their three-month scenario that the long run GDP lost will be equal to 3%, which is smaller than the average amount of output lost in previous recessions (c.7%).

[12] The Resolution Foundations forecast of GDP in 2020, using six- and twelve-month lockdown scenarios, show that growth will decline by 20% and 24%, respectively. This is quite considerably worse than even the most conservative of the current base case scenarios, as shown in Chart X (-13%). It is clear that in these scenarios the degree of lost output in the long run and scarring to the economy will be much than what current base case scenarios would suggest.

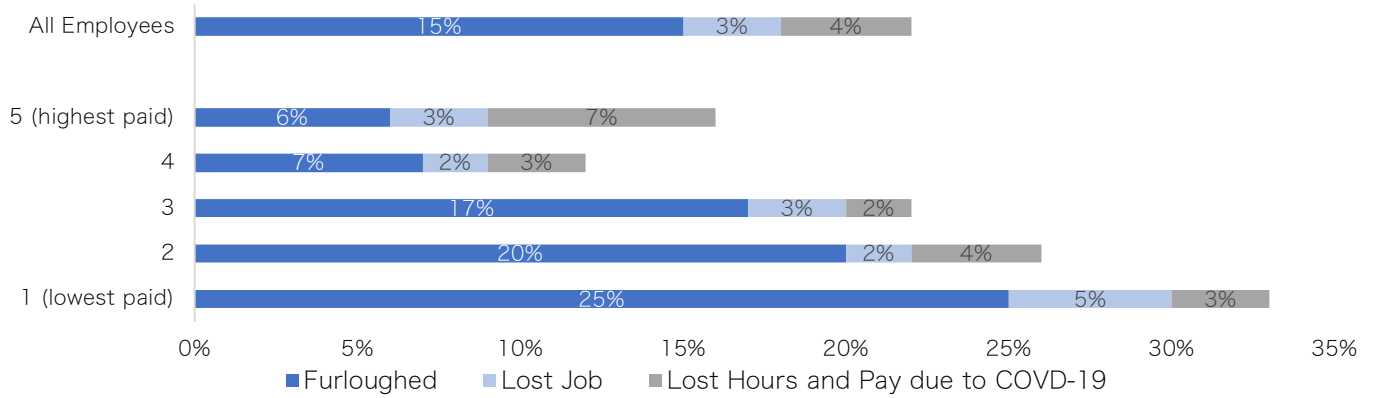
lockdown, businesses will have to learn to adapt to the "new normal" with social distancing policies likely to stay in place for some time. This will mean businesses are unlikely to be running at full capacity, which in turn will require cost cutting - increasing unemployment, reducing investment and leaving both business demand and supply lower. In addition, consumer demand is likely to remain subdued as people are unlikely to spend their money as freely as they did in the past - both because of money being a little tighter and due to fears of catching the virus. And as noted above, timing is what matters the most and it becomes helpful here to separate knowns and unknowns. We know how stresses tend to propagate through the financial system. For example, the longer economic activity remains subdued by the virus, the greater the increase in unemployment rates and business defaults - which leads to incomes being hit and further defaults in household obligations such as mortgage loans and consumer credit - putting pressure on financial institutions.[13] Although, it remains mostly an unknown how long demand and supply will remain subdued after lockdowns have been eased. As well as how long businesses can withstand the lower revenues this creates, before we start to observe significant increases in defaults.[14] The ONS have provided some good evidence to suggest that it's not all that long, with almost 50% of operating businesses in the UK having less than 6 months of cash reserves available.

Chart 7: Impact of COVID-19 on household savings by income and employment type



Source: Ipsos Mori Survey (29th May - 3rd June)

Chart 8: Proportion of employees who have experienced job changes since the coronavirus outbreak, by employee earnings quintile prior to the outbreak: UK, 6-11 May 2020



Source: Resolution Foundation

This economic shock is also having heterogenous economic effects on various groups of society. There are clear winners and losers. There have been changes to the way that we work and live and some of these

[13] The positive is that the largest financial institutions are much better placed to withstand significant increases in defaults than during the previous financial crisis, which should help to avoid this spreading into a significant stress of the financial system.

[14] To be clear, defaults will start to occur if economic activity does not pick up because firm's revenues will be lower than normal meaning, they will need to eat into cash reserves in order to remain solvent. This can only a certain amount of time before cash reserves have been depleted and defaults occur.

changes are likely to remain permanent. As Chart 1 shows, the changes in output are much larger for some sectors of the economy than compared with others. Chart 7 shows that those on lower incomes have seen reductions in their household savings, whilst those on higher incomes have been able to increase their savings. Self-employed and part-time workers have also experienced reductions in their household savings.

Analysis from the Resolution Foundation has shown that workers age 16-24 are twice as likely to be working in shutdown sectors, as compared with the rest of the workforce. Furthermore, lower income workers are at a greater risk to the economic and health effects of the coronavirus (see Chart 8). Median pay varies considerably across different groups of workers. Those in shutdown sectors have median weekly pay equal to £348, compared to £454 for key workers facing the biggest health risks, and £707 for those that can work from home. As much as 25% of workers in shutdown sectors sit within the bottom 10% of earners, compared with 4% of workers that are working from home. And at the other end of the income distribution, the 19% of workers that are working from home are in the top 10% of earners, compared with just 5% of key workers and 4% of workers in shutdown sectors.

This crisis has also excessively affected groups with a less stable starting point. For example, 45% of workers on zero-hours contracts work in shutdown sectors, compared with just 14% of full-time employees. Private renters have a housing cost to income ratio of 32%, compared to 11% for homeowners. They also have considerably less savings and 24% of private renters work in shutdown sectors, compared to 17% for homeowners. As much as 72% of single parents with children under the age of 5 are either key workers (44%) or work in shutdown sectors (28%), compared with 46% across all workers. Lastly, women in employment are twice as likely to be key workers as employed men (36% vs 18%) and are also more likely to work in shutdown sectors (23% vs 16%).

To summarise, there is considerable degree of uncertainty over how the economy will recover from this crisis. What we do know is, the longer the virus has an impact on economic activity, the larger the long-run effects are likely to be. In addition, the effects of this shock are not being felt evenly and those more affected currently are most likely the ones that will need require support in the future too. Little was mentioned in this section with respect to wellbeing and we know from Section 2 that the impact on wellbeing has been significant. The recovery of these metrics is most likely to be impacted by the strength of the economic recovery and the quality of public policies put in place coming out of the crisis. This is the topic of the final section of this paper.

Section 4: Policy Recommendations

These policy recommendations (PR) are clearly not aimed at being an exhaustive list of all the important public policies that will need to be put in place in the aftermath of this unprecedented crisis and we have missed out on some important policies. However, we have identified a range of policies that are consistent with the objective of "increasing wellbeing in society in a sustainable way" and we believe these policies will have the greatest impact on achieving this objective. Our aim is that there are some complimentary features between the chosen policies. In addition, as a general theme, they look to amplify what is seen to be consistent with the aforementioned objective and to provide intervention where we are observing trends going against this objective. Lastly, as discussed in previous sections there is evidence to suggest that there has been a significant increase in saving during this crisis, some of this is driven by uncertainty. It remains likely that saving will be elevated above normal levels for as long as full economic activity is constrained by social distancing measures. Therefore, policy recommendations in the recovery should be focused towards restoring confidence and stabilising expectations in order to channel surplus savings into productive investment.

Policy Recommendation 1 (PR1): Climate at the centre of the response

We start with Climate Change because we believe, that this is single biggest public policy issue. This was true before COVID-19 appeared on the scene but it has placed a greater emphasis on this point and provides a unique opportunity for green government policies to have a number of positive externalities. Some of these positive externalities wouldn't have been possible without this crisis. The reaction to this crisis has shown that rapid changes in behaviours can have a significant impact on emissions. Global emissions are forecast to

decline 5-6% in 2020, the largest fall on record.[15] Of course, this year has been an extreme scenario and it is clearly not a recommendation in this paper to start enforcing lockdowns for the benefit of the climate. Getting to the bottom of this issue requires developing technologies such that the way that we consume and produce goods and services is more sustainable, and therefore uses far less of the planet's resources. However, COVID-19 has brought to light the fragility of our economies. In a similar way that lockdowns are leading to unprecedented declines in economic activity, it's easy to imagine a world where increasingly frequent natural disasters occur, with harrowing feedback loops, that could have similar, if not worse, effects.

To begin with this topic, it helps to consider the concept of natural capital. This means we start to recognise the value that elements of nature have, and we look at them like other capital assets (e.g. machines). They generate valuable goods and services including energy sources, raw materials and clean air which people value and help to deliver health, wealth, wellbeing and productivity.[16] However, due to the fact that a lot of the positive externalities from natural capital are not traded in a market place[17] (e.g. everyone can breathe fresh air for free), this often means too little is invested in maintaining its quality, or it is used too much. This undermines prosperity and depletes their quality. Following this crisis, as the government looks to restore confidence in this recovery, they should look to invest in natural capital in order to build an inclusive, stable and resource-efficient economy.

For advanced economies that can borrow in their own currency, the most efficient way out of recession, with interest rates close to zero, is for the government to borrow and invest in growth projects. If the government chooses to fiscally consolidate during the recovery period, this is likely to make debt sustainability more difficult and risks stalling the recovery. In the UK, public debt affordability remains strong, despite rapid increases in fiscal spending recently (See box note 1). Expansionary fiscal policy has been shown to be more effective during downturns - where there is spare capacity in the economy, public spending has a greater multiplier effect. In the short run, these benefits take the form of providing jobs (see PR2) and stimulate domestic spending and demand (see PR4). In the long run, green investments will likely transfer resources to the sectors of the economy that will be more resilient to future shocks, expand capacity and generate productivity growth (see PR3). These investments look to generate both human and social capital, as well as increasing the value of natural capital.

With respect to government revenues, carbon taxes can help to support debt sustainability, as well as tilting incentives to support green recovery strategies. As we have stated in previous articles, green investments in tandem with carbon pricing policies increases their efficiency by more than compared with doing either in isolation.[18] The UK has already developed a carbon pricing framework, although importantly this needs to be simplified and recalibrated to be consistent with the UK's climate objectives.[19] If this were to be put in place, estimates have shown that this would increase public revenues by c.£20bn per annum for the next decade. This is between 3.5-4% of UK GDP, which is a long way from a negligible amount. Disruption from COVID-19 and lower fossil fuel prices make it easier now to implement adjustments to carbon price levels, allowing a recovery that is guided by better, more efficient and sustainable processes and systems. Climate should be at the centre of the response and the policy recommendations continue this theme.

Policy Recommendation 2 (PR2): A centralised job matching and job retraining scheme

As detailed in previous sections, the economic shock from COVID-19 has taken the form of an income shock for many businesses and households in the UK. This income shock has been cushioned by UK government support, but it is currently very difficult to ascertain exactly where the unemployment level will sit after the government schemes have ended. The labour market will play an extremely important role in this recovery. The UK government should not rush to reduce the unemployment level in the recovery at all costs, however. Its role should be continuing to provide support for those that have lost their jobs, developing retraining schemes for jobs based in emerging and sustainable industries and looking to assist in providing matches between firms and workers. Allowing for the labour market shock, caused by COVID-19, to go unabated

[15] See analysis from Carbon Brief

[16] See Binner et al (2018)

[17] They are also non-rival and non-excludable due to being public goods.

[18] See the Graham institute on climate change and the environment (March 2020)

[19] See "The future of carbon pricing in the UK", August 2019. To note: there are several overlapping carbon pricing policies that would benefit from being unified into one price.

would likely further exacerbate the productivity challenges and low wage growth that the UK has been experiencing since the previous financial crisis.

Government schemes, such as Jobcentre Plus and the National Retraining Plan, deserve updating and modernising to handle the new challenges facing the British economy, as well as the old challenges such as regional inequality. This should take the format of a centralised scheme that looks after job searching and retraining courses: one website and unified office to access all these resources - a "LinkedIn" for the employment office. This should be designed with both those that have been hardest hit during this crisis and the objective of supporting a new green economy in mind. Younger workers, on lower incomes and with fewer qualifications are the ones that have been most impacted and fortunately, these are all groups where job retraining is likely to have strong benefits for both the worker and the productivity level of the economy.[20]

Finding the "right" jobs for individuals is a crucial aspect of getting the British economy back up to speed. This will have a positive impact on wellbeing due to workers enjoying their work and giving a sense of purpose due to feeling that their skills are needed. In addition, workers with a strong "match" with the firm they are working for are more costly to replace – due to their high levels of productivity and skills. Recessions tend to create a higher degree of workforce reallocation than in normal times and tend to reduce the quality of matches between workers and businesses. In the recovery period, unemployed workers often accept jobs that are not necessarily the right match, due to this job still being better than being unemployed. The government's role should be looking to increase the quality of matches between workers and firms and using Sweden's flexicurity model (discussed in the previous quarterly article) could be a good way to do this. The flexicurity model offers a good level of unemployment benefits such that workers don't feel rushed back into the labour market.[21] They can then focus retraining for a role that they are interested in and one that is consistent with the strategic goals of the government (i.e. sustainable and emerging industries). Relatedly, clean energy infrastructure projects (see PR4) are particularly labour-intensive, creating twice as many jobs per dollar spent than fossil fuel investments.[22]

Policy Recommendation 3 (PR3): Tough decisions for business in the recovery

The majority of the policies announced thus far to support UK businesses have been by providing funding in the form of loan schemes. Although the terms of the loans for businesses are quite favourable, as the recovery continues, there are going to become an increasing list of business needing equity (i.e. bailouts) rather than debt. The UK Chancellor recently explained to the public that their "Project Birch' was looking at precisely this, and that bailouts would be offered where all other avenues have been exhausted and where a firm's failure would disproportionately harm the economy. It is the second point here that allows for a degree of interpretation, and we believe this should be done on the grounds of two key questions: 1) Is the firm based in a declining industry? (Defined as medium/long term expectations of this sector as a percentage of gross valued added for example); 2) Does the firm provide an essential good or service to the UK economy that other firms cannot provide? If the answer is "yes" to the first question and/or "no" to the second, then providing a bailout would not be recommended for this firm.

Many advanced economies, including the UK, are transitioning through a structural change process as artificial intelligence is changing the nature of work and the demand for different types workers. High skilled and technical roles are valued more and are more secure as they are less likely to be replaced, as has been the case in the current crisis.[23] Industries that contain significant proportions of these types of workers are growing well. Job roles that require low skilled and manual tasks are declining, and the PR2 looks to address this by retraining workers to have skills that have compatible firms that are based in emerging industries. This means that it would be counterproductive for the government to provide bailouts for firms that are based in declining industries. However, the exception to this rule would be if the firm provides an essential good or service that other firms are unable to provide and therefore by not offering a bailout this would generate

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[20] Young workers are easy to train than older workers as they tend to find learning new tasks easier and have more remaining time in their career to benefit from the training. Those on lower incomes or with fewer qualifications will benefit more in a relative sense from job retraining than those on high incomes or with several qualifications.

[21] In addition, the flexible part of this model is that there are not significant barriers to firms laying off their workers, which means that firms can be nimbler in changing market conditions and reduces the number of "zombie" firms in the economy.

[22] Pollin et al (2008), Green recovery working paper

[23] See Card and DiNardo (2002)

significant disruption to the economy. There are likely to be a very limited number of firms that would receive a yes to question two.

Lastly, where bailouts are provided, these should be done on a conditional basis that are consistent with the UK's climate targets. This is important because providing bailouts to firms with high carbon intensity would be a highly inefficient use of governments resources. This is because if we assume that in the long run a transition to a low carbon economy is inevitable, then without significant change this firm would likely fail in the future anyway. Conditional bailouts have already been used in this crisis (e.g. Air France, Lufthansa)[24] and they provide several benefits. For example, they would be consistent with other policies such as retaining workers and infrastructure projects, as well as helping to accelerate low carbon restructuring as this would likely have particularly pertinent relative effects for firms that are heavy polluters.

Policy Recommendation 4 (PR4): Modernising the regions on a cleaner, greener and higher level

The UK government has shown that it is aware of the regional inequalities within the UK and that it is keen to address this with its levelling up agenda. Given those on lower incomes are more likely to be impacted by COVID-19, it is of little to surprise to observe significant regional disparities in the effect on workers employment status. In the North East of England >50% of workers have been furloughed, compared to just 17% in London. Despite being strongly supportive of the principle of a levelling up agenda in the UK we believe that two additional points should be considered alongside this.

Firstly, in order to genuinely work towards achieving this goal, this needs to be set on a long-term basis with the first milestone being an upgrade to the quality of the infrastructure. This involves improving the quality of transport between cities in the UK (excluding London), as well as making transport within these cities more efficient, increasing the supply of energy efficient homes and importantly providing an upgrade to public spaces through increased localised funding (see PR6). This is necessary to increase the desirability, especially for young and highly skilled workers, to move other cities and regions in the UK than just London. It is all good and well targeting increasing the number of businesses operating outside of the capital, but it's unlikely that large swathes of workers will follow suit without this important initial milestone. Greater quality of transport between cities increases the likelihood that workers will consider moving. This is an important point as it has been shown that workers are far less mobile, even when the financial rewards are clear, than one would expect. Family ties or relationships being the main barrier and increasing the quality of transport between regions will likely reduce some of this inefficiency and increase the probability of good quality matches between firms and workers.

Secondly, this infrastructure spending needs to be consistent and focused towards achieving green objectives. Alongside generating new jobs, ensuring these projects follow green objectives will help to lower long term energy costs. In addition, it has been found that borrowers with more energy efficient homes are less likely to default on their mortgage, helping to support financial stability.

Policy recommendation 5 (PR5): Harbouring that rainbow effect

Section 2 outlined that the impact on the UK's wellbeing, as a result of COVID-19, has been significant. There have been sharp declines in measures of happiness and increases in measures of anxiety. There has however, been some small positives. Communities have shown a greater level of togetherness and people are providing more support to those that are vulnerable. This is a positive step in the right direction in an area where the UK has been in decline. The recent ONS report on social capital in the UK makes particularly poor reading. At the UK level, trust in the national government fell by 11 percentage points in the year to autumn 2019, from 32% to 21%. Positive engagement with neighbours has also been falling, as well as sense of belonging in neighbourhoods. Consequently, alongside the upgrade to public space as proposed in PR4, increased localised funding should be targeted towards generating social capital and therefore building upon the recent progress made in bringing communities together. This is likely to be a relatively inexpensive policy with hugely valuable returns from increases in wellbeing. This should not be a prescriptive policy on how the funds should be used, as local communities should be able to choose as they see fit. However, to offer some examples, these policies could be as simple as ensuring that towns have a social space where public

[24] See Air France; Lufthansa

gatherings could be held at a low cost or paying an army of teenagers a small wage to continue completing errands for vulnerable people in the community.

In the recovery period, progress through putting into action the previous four policy recommendations will help to stimulate an economic recovery that considers wellbeing and will help to reverse a good majority of the declines that have been observed in wellbeing variables. That said, there will remain some that will require additional mental health support due to the impact of COVID-19. In addition, the UK's position on mental health was far from perfect before the crisis. As stated, in a previous article there are a significant proportion of workers that are unable to reach anywhere near their optimal potential due to struggling with their mental health. It is incredibly important to also increase localised funding to ensure all of these people receive the support that they need to overcome this.

Conclusion

These policy recommendations may seem on the surface to be focussed towards only stimulating the economic recovery, and not considering the initial objective which was to increase wellbeing in society in a sustainable way. Our previous research on the determinants of wellbeing suggested there are five main factors to consider, which are: our personal relationships, our financial situation, our health (both physical and mental), our work and our community.[25] All of the policies suggested will have some degree of impact on each of these determinants. And by placing green initiatives at the centre of this will help to create a more sustainable boost to wellbeing by creating greater resilience in the economy to future shocks.

PR2 on the labour market looks to increase the level of skills of workers to meet the demands of an efficient, modern economy and generate better matches between workers and businesses. These types of roles improve wellbeing by giving workers a greater sense of purpose, as well as boosting productivity in the economy. In addition, PR3 will improve household's financial situation by looking to support businesses that will help to generate a resilient and sustainable recovery. PR4 looks at improving the quality of infrastructure in the UK, outside of its capital, this should enable more efficient worker mobility across regions of the UK. This will help to support personal relationships by incentivising workers to take a new role in a different region with the comfort that transport links to see family and friends are more reliable and efficient. In addition, these infrastructure upgrades will improve the quality of communities that UK citizens live in and increase the desirability of moving to different regions in the UK. And lastly, PR5 will benefit the UK communities by building on the recent progress that has been made, as well as looking to support those with mental health through increased localised funding.

As a final point, it is not just in the UK that trust in national government has been declining, this is a global trend. Trust is more important than one may initially think. It has been shown in countries where there are greater levels of trust in its leaders, the government's public policies are more likely to be successful.[26] During this recovery phase, if the UK government were to step up and fully embrace sustainable and wellbeing focused policies, our educated guess is that this would lead to a substantial increase in trust. This would suggest that the policies were even more likely to be successful. For an issue such as climate change, it is often seen as a game where countries have something to lose by moving first; why look to reduce your emissions, at a cost, when all else around are increasing theirs at limited costs? This article has shown that this is extremely short-sighted view, prioritising a green recovery now will decrease long run costs by increasing resilience to shocks and create an efficient low carbon economy.

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[25] These are the five main determinants to which we have some degree of control over. Personal freedom would be an important determinant that we don't have much control over, and one could argue that lockdowns that an impact on our personal freedoms and help to explain some of the observed reduction in wellbeing measures.

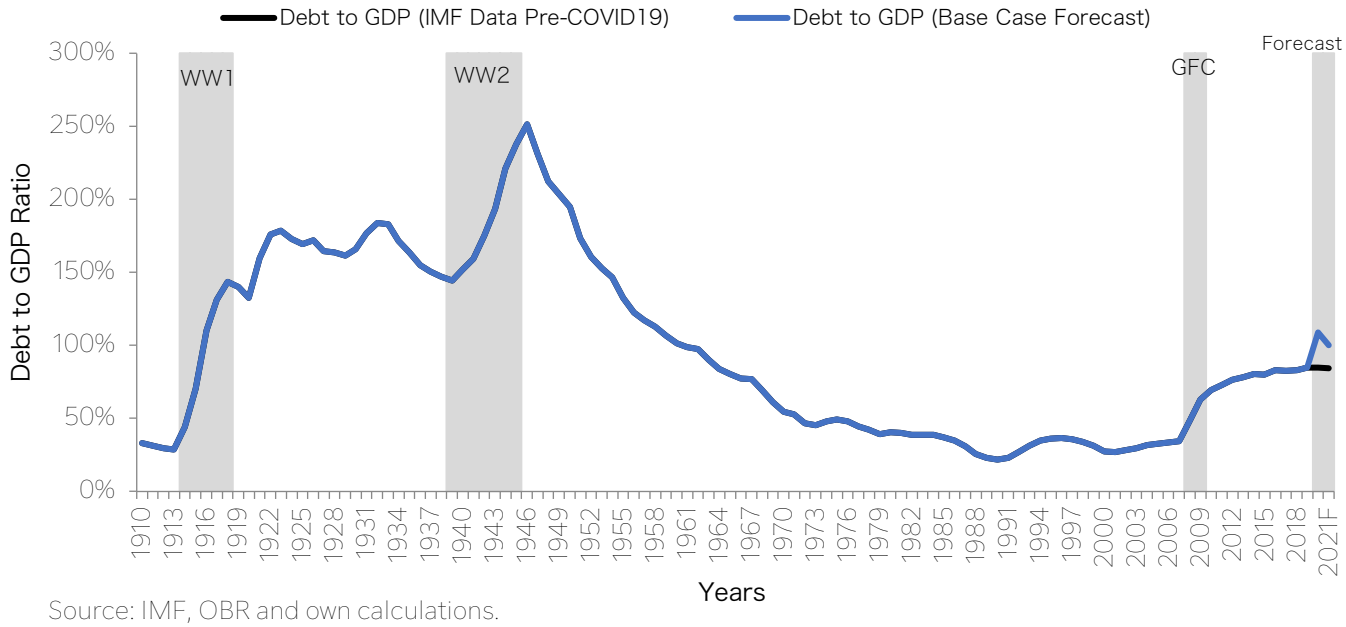
[26] See UN World Happiness Report (2020).

Box Note 1: What does this mean for UK public debt sustainability?

The UK government has put in place a significant package of fiscal policies in order to support the UK economy during this crisis. This will lead to greater public debt, due to both public spending increasing and tax revenues declining. The OBR is expecting that the UK fiscal deficit for 2020 will rise to 13% of GDP. This, alongside a reduction in economic output, will lead to a substantial increase in the UK's debt-to-GDP ratio from just over 80%, to settling just above 100% by the end of 2021. This increase is shown in Chart 9, and we have included data which goes back to the beginning of the 20th century, helping to provide some additional context on this issue. The UK public debt ratio following the Second World War was substantially higher than it currently is.

Public debt dynamics can be broken down into two drivers: the first is the primary balance, which is government revenues minus government expenditures excluding gross debt interest payments and the second is the relationship between interest rates and growth. More precisely, the second point focuses on the difference between the effective interest rate paid on the governments public debt stock and nominal GDP growth. A fall in this interest rate will lead to a reduction in the public debt ratio, as will an increase in the nominal growth rate, all else equal. Following the financial crisis in 2007-08, the UK government looked to use the primary balance to improvements its public debt position, by aiming to cut government expenditure. The success of this approach was limited, despite funding conditions improving through this period. The average effective interest paid on debt between 2007-2015 was 3.5%, compared with an expected <2% in 2020.

Chart 9: UK Public Debt to GDP ratio (1910-2021)



Source: IMF, OBR and own calculations.

Debt affordability, as measured by public debt interest payments as a proportion of government revenues, have been improving for much of the last decade. This measure peaked in 2011 at 9% and is now below 6%. Due to ultra-loose monetary policy, the current expectation is that debt interest costs will remain low despite an increasing debt burden. This suggests that the UK government should have very little difficulty refinancing their debt stock even at these higher levels. This is reflected in how the market views the sustainability of the UK's public debt position, given the UK sold negative yielding government bonds for the first time in May 2020. This makes the case even stronger for using public investment in this recovery and paradoxically this is likely to steer the economy towards public debt sustainability. Without public investment, the UK economy is likely to recover slower, as savings rates and uncertainty remain elevated, constraining economic activity. Utilising public investment, will likely stimulate the UK economy and if designed with green fiscal policies in mind this will help the UK transition to a low carbon economy, building resilience against future shocks. This greater resilience will require less need for public investment in the future. Nominal GDP growth will likely be larger than without public investment therefore helping to reduce the public debt ratio. Lastly, if carbon pricing is put in place alongside green public investments this should help to assist on the primary balance side of the government's debt dynamics by increasing government revenues.

Annex

Table 1: ONS Coronavirus Business Impact Survey (4th June 2020 release)

Panel 1: Proportion of businesses by trading status and workers on furlough leave

	Businesses currently trading	Businesses temporarily closed or paused trading	All businesses (excluding those permanently ceased trading)
Trading status	82%	18%	100%
Workforce on furlough leave	20%	80%	28%

Panel 2: Cash reserves

	Businesses currently trading	Businesses temporarily closed or paused trading	All businesses (excluding those permanently ceased trading)
No cash reserves	3%	8%	4%
Less than 6 months	39%	57%	42%
More than 6 months	34%	11%	30%
Not sure	24%	24%	24%

Panel 3: Proportion of businesses applying to government schemes

	Businesses currently trading	Businesses temporarily closed or paused trading	All businesses (excluding those permanently ceased trading)
Coronavirus Job Retention Scheme	76%	94%	79%
Government-backed accredited loans or finance agreements	14%	25%	16%
Business grants funded by the UK and devolved governments	13%	31%	17%
Not applied for any of these schemes	22%	4%	19%

Chart 10: Sector weights in the OBR reference scenario (%)