CAGE

Economic challenges and success in the post-COVID era

A CAGE Policy Report

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Editor: Mirko Draca

CAGE Research Centre, Department of Economics
University of Warwick, Coventry CV4 7AL, United Kingdom
warwick.ac.uk/cage

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Department of Economics, University of Warwick, Coventry, CV4 7AL, United Kingdom

ABOUT CAGE

CAGE is a research centre based in the Department of Economics at the University of Warwick. We conduct independent policy-driven research informed by history, culture and behaviour. Our aim is to move beyond traditional measures of economic success to consider broader influences on global prosperity: from cultural and behavioural attitudes to voter preferences and political institutions. We analyse historical and contemporary data to draw out lessons for modern policy. CAGE is supported by the Economic and Social Research Council (ESRC).

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Foreword

As Chair of the Advisory Board of the CAGE Research Centre, I am delighted to introduce the 2021 CAGE Policy Report. This report draws on the unique expertise of CAGE associates to provide a new perspective on economic challenges and success in the post-COVID era.

COVID has hit the UK economy hard, and comes on the heels of the shock of Brexit. In this series of papers, CAGE associates look at the impact of COVID-19 and at the structural challenges that policymakers face after this double hit. They assess ways to measure policy impact; what economic success might look like after COVID; and the structural changes lying ahead.

The report begins with an historical perspective — one of CAGE's research strengths — looking at the challenges that faced the UK after World War II, arguably the most comparably disruptive event in living memory, and assessing the outcome of the 1945 settlement, with its promise of full employment and the creation of the National Health Service. But the settlement was followed by slow productivity growth and poor progress on health inequalities, for which a better funded health service might not be the full answer.

The following papers cover challenges and changes to the labour market and to cities — both in general, and in the special case of the City of London — with the lessons for policymakers summed up in a concluding chapter.

An examination of the rise in remote working suggests that it may be more limited — to a ceiling of about 20–30% of jobs — than previously thought. In addition, remote working may cause certain middle-income jobs, in sales and administration, to disappear or to be restructured. A study of cities looks at the impact of COVID on spatial mobility and concludes that the urban and regional structure of England and Wales has been remarkably resilient. Prices in London (but not wages) have been rising relative to the rest of the country, but COVID has not reshaped Britain's economic geography.

"COVID has hit the UK economy hard, and comes on the heels of the shock of Brexit."

As for the City of London, the impact of globalisation, regulation and technology greatly exceeds the consequences of COVID-19. The City shows the astonishing impact of clustering in banking. The total-assets-to-GDP ratio for both UK and foreign-owned banks resident in the UK rose from 1951 to a peak of over 500% just before the 2008 global financial crisis. It has subsequently fallen back to around 400%.

The most striking effects of COVID-19 will be on the young. There is a serious prospect of a 'lost generation' whose life chances are severely affected by the pandemic's disruption. Not only have the young suffered in a way 'that may still not be fully grasped by politicians and some citizens' but also, unhappily, it is their generation that will carry the main financial and emotional costs of COVID-19.

Dame Frances Cairncross, CBE, FRSE, is the former Head of Exeter College, Oxford. She is a Council member of the Institute for Fiscal Studies and Chair of the CAGE Advisory Board.

Contents

Table of contents

Introduction

In 2008 there was an expectation of major reform to social and economic structures following the financial crisis. The European Union (EU) referendum of 2016, and the UK's subsequent exit from the EU in 2020, was also signalled as a turning point that would bring about epochal change. Now, in the waning of the coronavirus pandemic, we are experiencing a similar rhetoric. There is widespread agreement that the pandemic will usher in big changes for the economy and society, with the potential for major policy reform. But what will be the long-term impacts of the pandemic on the UK economy? Is the right response a "new settlement" or is some alternative approach likely to be more beneficial?

This report puts forward a new perspective on the pandemic-related changes that could be ahead. The central theme is assessing the viability of epochal reform in policymaking. There seems to be a relentless desire for making big changes; however, there is arguably not enough recognition of how current settings and history can hold back these efforts.

As an Economic and Social Research Council (ESRC) Research Centre founded in 2008, CAGE has always had a strong focus on diverse topics in history, political economy, wellbeing and traditional 'nuts-and-bolts' labour market and industrial policy research. This report draws on this expertise to assess the challenges brought on by the pandemic and the prospects for positive change.

In Chapter 1, **Nicholas Crafts** sets the scene with a discussion of the 1945 settlement, which has been offered up as a template for major post-pandemic societal reform and reshaping. Crafts makes the point that the outcomes of the 1945 reforms need to be assessed critically rather than reverentially. The 1945 settlement didn't necessarily lift UK growth performance above those of peer economies: health inequalities still increased, and important long-term policy reforms were constrained from taking place.

Chapter 2 by **Mirko Draca**, **Emma Duchini**, **Roland Rathelot** and **Giulia Vattuone** sets out likely changes to the labour market following the rise of remote work that occurred during the pandemic. The chapter argues that, based on present data, around 20% of workers will be working remotely on at least a partial basis as social distancing declines: dramatically less than the 40–50% peaks reached during the strictest periods of social distancing. It also reveals that an important segment of administrative and office workers may be exposed to 'restructuring risks' as a move away from face-to-face work drives lower demand for on-site office staff. The size of the at-risk group is comparable to those at risk from artificial intelligence technologies such as autonomous vehicles (drivers) and chatbots (call-centre operators).

In Chapter 3, **David Chambers** looks at the history of the City of London. He argues that the development of the City has been underpinned by three main forces: globalisation, regulation and technology. The economic importance of the City waned when globalisation went into a relative retreat after 1913, but increased again as the Thatcher government encouraged internationalisation after 1979. This was supported by the steady development of information and communication technologies (ICT) from the 1970s onwards. The main implication for the post-pandemic period is that COVID-19 is unlikely to fundamentally change the importance of the City unless its effects operate through one or more of these channels of globalisation, regulation or technology. Currently, the most notable COVID-19 effect for the City is technological, related to the use of remote work, and the long-term implications of this are not yet clear.

In Chapter 4, **Andrew Oswald** looks at the effect of the pandemic on wellbeing. The downturn in wellbeing at the start of the pandemic represents the biggest movement in these indicators since the regular collection of consistent data started in 2011. This shock to wellbeing is comparable to the effects associated with major life events such as divorce or unemployment. Most crucially, the effect has been largest for younger age groups. The long-term impact of this across the life cycle might be one of the biggest effects of the pandemic. It is known from previous research that individuals adapt to adverse wellbeing shocks, but the size and breadth of the pandemic's effect on the young mean that there is a strong prospect of a long-term generational effect.

The final chapter, Chapter 5 by **Mirko Draca**, **Max Nathan** and **Carmen Villa-Llera**, tracks the path of the housing market during the pandemic. The housing market has proven very robust to the effects of the pandemic, with government policy playing a central role in this regard. So far, there have only been very limited signs of any shift in demand away from cities in the UK to suburbs or rural areas. This chapter places these findings in the context of structural factors and trends that have been at play since at least the mid-1990s: in particular, the continued pre-eminence of London and the South East, despite disposable incomes in these regions being meaningfully eroded by rising housing costs. This points to the powerful influence of agglomeration economies. The central lesson for policymakers from the impact of the pandemic so far is simple: 'levelling up' and related objectives will not succeed unless a realistic view of the role of agglomeration economies is taken.

What will be the long-term impacts of the pandemic on the UK economy?

Chapter 1: The post-war settlement: Not a blueprint for post-COVID UK

Nicholas Crafts Department of Economics, University of Sussex and CAGE Research Centre, University of Warwick

1.1 Introduction

The transition from war to peace in the years after 1945 is often regarded as a great British success story. The economy moved rapidly to a 'golden age' of inclusive economic growth, with a welfare state that provided economic security 'from the cradle to the grave'. The unemployment of the 1930s was eliminated, while inflation remained under control.

There is still a great deal of nostalgia for the policy reforms of early post-war Britain. In a flagship speech called 'A New Chapter for Britain' (2021), the Labour Party leader, Sir Keir Starmer, hailed the determination of those years to pursue fundamental reform and argued that there is now a similar mood to that prevailing in 1945 to build a better, more secure future. It is routine for commentators to call for 'a new Beveridge Plan' or, slightly more circumspectly, to argue that 'a good start for a post-pandemic society would be to learn the lessons of the 1940s' (Lansley 2021).

However, it is important to take away the right messages from past reforms, rather than look at them through rose-tinted glasses, as is so often the case. In this chapter I shall argue that although the results of the post-war settlement may look good at first sight, regardless of political perspective, it was in many ways disappointing. Some of the important lessons of the 1940s are about not repeating the mistakes that were made then.

"In this chapter I shall argue that although the results of the post-war settlement may look good at first sight, regardless of political perspective, it was in many ways disappointing."

Key findings

- The post-war settlement delivered very low unemployment but was a serious constraint on much-needed policy reform.
- Post-war growth was strong, but the UK was still outperformed by its European peer group.
- Financial repression squared the circle of expanding the welfare state while reducing the public debt to gross domestic product (GDP) ratio.
- The post-war welfare state failed to prevent a big increase in health inequalities.
- The Beveridge Report should be viewed critically rather than reverentially.

This chapter considers the post-war settlement and its outcomes through three main focal points:

- *Prima facie:* An era of great progress.
- Reality check: Serious shortfalls in performance.
- Lessons from history: The 1940s does not offer a template for post-COVID reconstruction.

1.2 The post-war settlement

Following the end of World War II, the Labour government made major economic and social policy reforms that shaped Britain for a generation. The post-war settlement was based on the ideas of Beveridge and Keynes regarding the welfare state and the maintenance of full employment. Added to this were increased state intervention in the economy, higher taxes and the acceptance of an implicit trade union veto on economic policymaking. The state aimed to provide security 'from the cradle to the grave' in a more equal society. The introduction of the National Health Service (NHS) in 1948 was widely celebrated. At the time it was believed that poverty had been eliminated, and that there would be no return to the hard times of the 1930s.

Central to this new dawn was the end of mass unemployment, which had scarred the interwar period. The 1944 White Paper on Employment Policy pledged that the maintenance of a high and stable level of employment was a primary aim and responsibility of government. It soon became conventional wisdom that this was a *sine qua non* for a government to be re-elected. The influential analysis of opinion poll data by Goodhart and Bhansali (1970) found that unemployment greater than 400,000 (about 1.8% of the labour force) implied that the governing party had no chance of leading in the polls. Presiding over a return to interwar levels of unemployment (which were never below 1.8 million) would therefore be electoral suicide.

Achieving such a low level of unemployment without igniting inflation was problematic, but was addressed by an implicit social contract between governments and organised labour that sought to deliver wage restraint in return for supply-side policies designed to please trade unions (Flanagan et al. 1983). This led to the persistence of weak competition policies, high marginal tax rates, state-owned enterprises, protectionism and dysfunctional industrial relations.

1.3 Prima facie: An era of great progress

Macroeconomic performance in the long post-war boom seemed to be outstanding and certainly much better than could have been hoped for at the end of the war. The economic environment was much less hostile than the 1930s' experience of depression and trade wars. Western Europe had the opportunity for rapid growth through reducing the productivity gap with the United States and recovering from the shocks of depression and war. As can be seen in Table 1, this was a time of rapid productivity growth, low unemployment and tolerable inflation.

Table 1. Macroeconomic performance, 1950–73

Unemployment (%)	2.63
Consumer price index inflation (% per year)	4.70
Labour productivity growth (% per year)	3.74

Source: Thomas and Dimsdale (2017): unemployment from Table A50, Column J; inflation from Table 47, Column E; productivity growth based on hours worked and calculated from Table A8, column B and Table A54, column AW.

Over the period when the 'post-war consensus' held sway, living standards improved steadily, as shown in Table 2. Real GDP per person (and real wages) nearly doubled in this golden age, while hours of work in 1973 were about 25% lower than in the 1930s. The proportion of households in relative income poverty declined slightly from 13.2% to 13.0% (Gazeley 2014; Gazeley et al. 2017), and life expectancy rose from 69.0 to 72.1 years (Office for National Statistics 2015), which was beyond what had been thought possible in the 1930s. By the late 1950s, the Prime Minister, Harold Macmillan, had coined the slogan, 'You've never had it so good!' The high point for happiness in the period after World War II was in 1957, the year of Macmillan's famous speech.[1]

Table 2. Changes in real GDP/person and hours worked, 1950–73

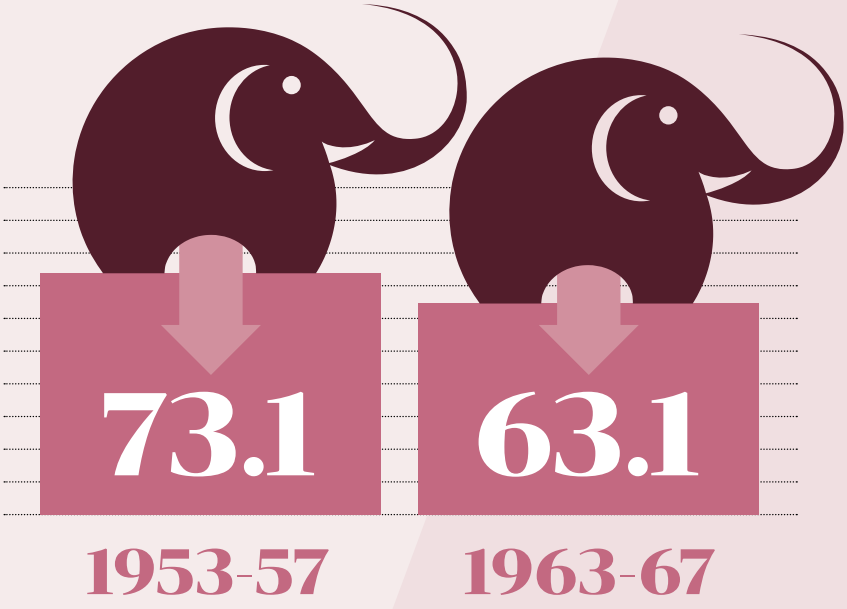
	Real GDP per person (2013 prices)	Annual hours worked
1950	7,114	2,184
1973	13,902	1,860

Source: Thomas and Dimsdale (2017): GDP/person from Table A21, Column X; hours worked from Table A54, Column AW.

The expansion of the welfare state was accompanied by a rapid reduction in the ratio of public debt to GDP, as shown in Table 3. Fiscal sustainability was not an issue despite the expansion of the welfare state at a time when government debt had ballooned through wartime borrowing. This was, of course, helped by the low unemployment and strong economic growth of the period. A decline in the public debt ratio was also propelled by very low real interest rates, which were generally well below the rate of growth. Low real interest rates reflected policies of 'financial repression', and were underpinned by capital controls that stopped an outflow of savings to other countries and onerous bank regulations that compelled banks to hold large amounts of government debt (Crafts 2016). This allowed the government to borrow from 'captive lenders' on very favourable terms.

[1] As measured by the valence of words in books; see Sgroi et al. (2017).

Financial repression



FINANCIAL REPRESSION INDEX SCORE (BATTILOSSI) 2004

A POLICY OF 'FINANCIAL REPRESSION' can be defined as one in which government intervention reduces the nominal interest rate on public debt to below the free market rate. Combined with inflation, this will be conducive to a more favourable configuration of the interest rate relative to the growth rate and may well entail a negative real interest rate on government borrowing. The methods by which this may be achieved include the imposition of interest rate ceilings, balance-sheet regulation of the banking sector, control of central bank interest rate policies, and restrictions on international capital mobility. The general idea is to create captive domestic savings from which the government can benefit.

Allen (2014) provides a detailed account of how financial repression was achieved in the 1950s, with approaches including the obligation for banks to have high levels of liquid assets to deposits which could be met by holding Treasury Bills, controls on interest rates, credit restrictions for private sector lending, and comprehensive foreign exchange controls. The financial repression index score calculated by Battilossi (2004) was as high as 73.1 in 1953–7 and 63.1 in 1963–7. This index has three equally weighted components: reserve requirements for banks, real deposit rates of banks and government liabilities held by the banking system. Each of these is measured on a scale of 0 (minimum) to 100 (maximum), standardised to a normal distribution. Politically, financial repression fitted with an era of very steep top marginal income tax rates in a rather egalitarian climate, and a strong preference for the tight regulation of the financial system following the banking crises of the interwar period.

The modern version of financial repression mentioned in the text (section 1.5) would take advantage of the commercial bank reserves held at the Bank of England that have accumulated through the purchases of government bonds under quantitative easing. A point to note is that interest rates on these reserves are currently very low but could rise rapidly if monetary policy were to 'return to normal'. Freezing reserves and ceasing to pay interest on such reserves amounts to a tax on banks but protects public finances against rising interest rates on around £900 billion of bank reserves. The attractions and practicalities of such a policy are discussed by Charles Goodhart and Adair Turner in the House of Lords (2021).

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Table 3. Fiscal sustainability data: Average for 1950–73	
r: real interest rate on government debt	0.15
g: real rate of growth of GDP	3.20
b: primary budget surplus/GDP (%)	2.34
b*: required primary budget surplus/GDP (%)	-3.53
Aide memoire: public debt/GDP	
d in 1950	1.995
d in 1973	0.505

Note: b* = d(r – g) is the primary budget surplus required for Δd = 0.
Source: Middleton (2010) database; Feinstein (1972).

1.4 Reality check

In his well-known book, Hennessy (1993) declared that in the early post-war decades there was 'progress on a scale and a duration never surpassed in the nation's history'. Clearly, there was considerable progress; however, a closer look at the outcomes of the post-war settlement reveals a less rosy picture, even for health. Although the evidence suggests that the NHS healthcare system seems to have achieved a high degree of horizontal equity (Propper and Upward 1992), i.e. equal access for equal need, which is unlikely to have been achieved in the interwar period, health inequalities rose steadily in the post-war years. A frequently used measure relates to social class differences in age-standardised mortality rates, which show that mortality in social class V was 1.37 times higher than in social class I in 1951, but had increased to 2.50 times higher in 1981.[2] The most important reason for this is probably deprivation, which suggests a failure of the welfare state rather than the NHS.

Optimism that poverty had been virtually eliminated stemmed from Seebohm Rowntree's third survey of York, which found that 4.8% of working-class households (implying about 2.8% of all households) were in poverty in 1950, compared with 31.1% in 1936 (Rowntree and Lavers 1951). In this context, 'poverty' was measured in terms of Rowntree's 'human needs' concept. However, later analysis of the surviving records from Rowntree's survey found that the results published in 1951 were unreliable. After correcting for errors in Rowntree's original analysis of his data, Hatton and Bailey (2000) calculated that the true figure, based on Rowntree's own criterion, was that 11.8% of working-class households or 7.1% of all households were in poverty in 1950. They also found that Rowntree had overstated the impact of welfare state reform on poverty. They estimated that if the 1936 social security system had still been in place in 1950, the fraction of working-class households in poverty would have risen by 3.7 percentage points.

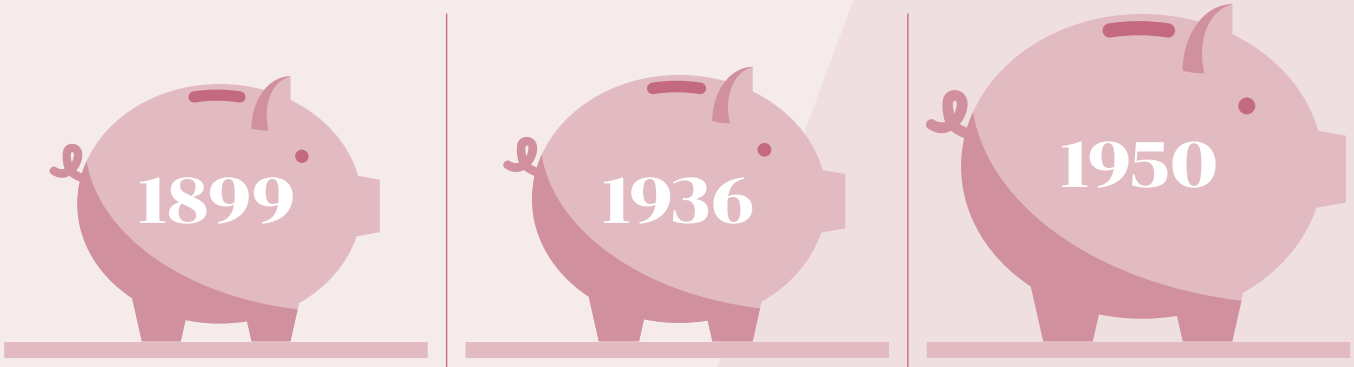
Contrary to Rowntree's original findings, a significant amount of poverty was still present in the early 1950s. An analysis of the 1953/4 Family Expenditure Survey found that 13.2% of all households were below 60% of median equivalised income, a conventional criterion for 'relative income poverty' (Gazeley et al. 2017). No comparable estimate has been made for the late 1930s, but extrapolating from the postwar period it can be estimated that about 16% of the population may have been below 60% of median income in 1937.[3] By using this measure poverty was lower after World War II, but had not been dramatically reduced.

It should be noted that the post-war fiscal design raised taxes by much more than it increased social expenditures (Table 4). To modern eyes it is striking how little was spent on health, even though tax rates had jumped significantly. The amount of redistribution, measured as the total of net payments to households who gained from the tax and benefit system, rose from 8.8% of GDP in 1937 to 13.1% in 1948/9. This is considerably less than many people might imagine, but reflects Beveridge's intention that the welfare state should provide social insurance rather than seek to deliver a significant redistribution of income.

[2] This comparison can sometimes be misleading but after a careful review of the evidence, Pamuk (1985) concluded that the increase in relative social class mortality differentials was genuine rather than a statistical artefact.

[3] For the period 1961 to 2015, McKnight et al. (2017) estimated this measure of poverty = -0.0496 + 0.7261 Gini. Gini in 1937 = 0.29 so this equation would predict poverty = 16.1%.

'Human needs' poverty



114%

£53.10 PER WEEK
AMOUNT OF INCOME NEEDED TO MAINTAIN AN ADEQUATE STANDARD OF LIVING IN 1899 AT 2000 PRICES

118%

£71.77 PER WEEK
AMOUNT OF INCOME NEEDED TO MAINTAIN AN ADEQUATE STANDARD OF LIVING IN 1936 AT 2000 PRICES

145%

£91.06 PER WEEK
AMOUNT OF INCOME NEEDED TO MAINTAIN AN ADEQUATE STANDARD OF LIVING IN 1950 AT 2000 PRICES

MODERN STUDIES OF POVERTY typically use a measure based explicitly on relative income. A common criterion is that a household is in poverty if it has less than 60% of equivalised median income, i.e. income adjusted for family size and composition. In practice, the percentage classified as poor is quite closely related to the inequality of incomes across the population. In 1953/54, based on this measure and using the Family Expenditure Survey, Gazeley et al. (2017) estimated that 13.2% of households were in poverty.

During the first half of the twentieth century, investigators, including Rowntree using a 'human needs' standard, typically based their poverty estimates on the number of households falling below a poverty line, i.e. the amount of income that a household of their size and composition needed to maintain an adequate standard of living, taking into account nutritional needs, rent, clothing and household necessities.

'Adequacy' connoted considerably more than bare bones subsistence and, as real wages rose, the standard of living deemed adequate by these investigators increased over time. Rowntree's primary poverty budget for 1899 for a couple with three young children was £53.10 per week at 2000 prices (114% of average personal disposable income), his human needs budget in 1936 was £71.77 (118%), and his modified human needs budget in 1950 was £91.06 (145%) (Glennerster et al. 2004). In practice, these poverty lines were also based on a relative income concept, but only implicitly.

REFERENCE

Glennerster, H., Hills, J., Piachaud, D. and Webb, J. (2004). *One Hundred Years of Poverty and Policy.* York: Joseph Rowntree Foundation.

Table 4. Pre- and post-war redistribution		
	1938	1951
Social expenditures (% GDP)	8.6	11.5
Education	2.1	3.2
Health	1.6	3.4
Social security	4.9	4.9
Taxes (% GDP)	21.5	33.6
% Original income £2K-£3K	37.9	55.7
% Original income £3K-£5K	43.1	62.9
% Original income £5K-£10K	51.6	79.9
Net redistribution (% GDP)	8.8	13.1

Sources: Social expenditures and taxes: Middleton (1996). Tax as % original income: Barna (1945); Cartter (1955). Estimates are for 1937 and 1948/9. Net redistribution: Cartter (1955). Estimates are for 1937 and 1948/9.

Considering the above, the popular image of Beveridge's welfare state as a landmark achievement in addressing inequality is perhaps wide of the mark. Indeed, for many years specialist academics have been very critical of the Beveridge design. The declared aims were to achieve an adequate minimum income for all while abolishing means-testing in favour of a system of social insurance that paid out flat-rate benefits for contingencies such as old age, sickness and unemployment, all funded by flat-rate contributions topped up from general taxation.

The aims were not and could not have been fully achieved by Beveridge's proposals. Reliance on flat-rate contributions restricted benefits to inadequate levels, while the huge geographic variability of house rents and the reliance on below-poverty line benefits had to be addressed through means-tested National Assistance. Many old-age pensioners with no income other than benefits qualified for National Assistance but did not want to subject themselves to the application process and remained in poverty. Some 7.1% of households had incomes below the National Assistance level in 1953/4 (Gazeley et al. 2017).

A much more effective approach to social insurance would have relied on funding from taxes and made transfer payments on the basis of need. Such a scheme would have been designed to provide a safety net for privately uninsurable risks including social care, which was omitted, and the erosion of pensions by inflation, which was ruled out by Beveridge's approach. Payment of flat rate benefits related to contribution history was a recipe for rapidly increasing relative income poverty in a period of strong economic growth, and not surprisingly was abandoned in favour of the de facto wage indexation of benefit levels.

Finally, it is important to recognise that the post-war settlement undermined growth performance. Put into a comparative international context, UK productivity growth in the golden age was not particularly impressive and was notably inferior to that of France and West Germany, as shown in Table 5. Although these countries had more scope for rapid catch-up growth as they started from lower productivity levels, the key point to note is that they had overtaken the UK by 1973 when their labour productivity levels were about 12% higher. UK underperformance relative to what it was reasonable to think possible is about 0.8% per year (Crafts 2017).

Table 5. Comparative productivity performance in the golden age, 1950–73

a) Productivity growth, 1950–73 (% per year)

	Y/L	TFP
France	4.83	4.02
United Kingdom	3.74	2.44
West Germany	5.83	4.06

Note: Y/L is labour productivity measured as real GDP per hour worked; TFP is 'crude TFP', i.e. the contribution of labour quality is included.
Sources: Bergeaud et al. (2016): Table 1 and the long-term productivity database.

b) Real GDP/hour worked (UK=100 in each year)

	France	West Germany
1950	80.3	70.0
1973	112.6	111.9

Note: GDP is measured in constant purchasing power parity dollars.
Sources: Derived from Thomas and Dimsdale (2017) and The Conference Board (2016).

The productivity growth failure was an outcome of supply-side policy failings, many of which were promoted by the 'post-war consensus' and the attempt to persuade trade unions to exercise wage restraint to maintain full employment without triggering an inflationary spiral. The cardinal policy error lay in the balance between industrial policy and policies to promote competition that favoured the former at the expense of the latter. This slowed down the processes of creative destruction, underpinned a damaging industrial relations system, allowed incompetent management to survive, protected wasteful investment and low effort bargains in state-owned enterprises, and facilitated mergers that raised market power but not productivity.

1.5 Lessons from history

After World War II, the post-war settlement dictated that there should be no return to the 1930s. Above all this meant that there should be no going back to the high unemployment of that decade. The equivalent in post-COVID Britain is that even though the public debt to GDP ratio has topped 100% of GDP, there should be no more 'austerity', i.e. fiscal consolidation based on expenditure cuts. This is understandable given the severity and duration of reductions in public spending after the 2008 financial crisis (Crafts 2020).

The situation faced by the United Kingdom has similarities to the years after World War II, with urgent demands for more government spending (including more generous transfer payments) to address issues of fairness, improve public services and rectify a large backlog in infrastructure investment, while also ensuring fiscal sustainability by stabilising and then reducing the public debt to GDP ratio. Clearly, increases in taxation will play an important role, but the lesson from the UK's experience in the 1950s and 1960s is that the interest rate growth rate differential is a key variable. Negative values for (r – g) in those years made the combination of welfare state expansion and debt ratio reduction eminently feasible. Financial repression and golden age growth made for pleasant fiscal arithmetic. The Office for Budget Responsibility (2019) envisages a medium-term scenario where (r – g) = 0.2%, but noted that this was by no means guaranteed.

Keeping the real interest rate on government debt down and improving productivity growth after its unprecedented pre-COVID slowdown (Crafts and Mills 2020) are high priorities for a new fiscal settlement. It is not possible to replicate the 1950s – capital controls and golden age catch-up growth are the past not the future. It may, however, be possible to use an alternative method of financial repression and improved supply-side policies that address slow productivity growth gain added importance given the fiscal imperative.

The route to a modern version of financial repression lies in exploiting the opportunity provided by quantitative easing, which means that £900 billion (and rising) of government debt has been bought by the Bank of England and is financed at the Bank Rate (currently 0.1%) paid on commercial bank reserves. A substantial part of these reserves could be frozen with no interest paid, although some fraction would have to continue to pay interest to make monetary policy effective. Alternatively, they could be compulsorily swapped for short and medium-term gilt-edged securities (Allen 2021). Either of these methods is in effect a tax on banks, and in economic policy terms the issue is whether any adverse side effects of such a tax outweigh its public finance benefits. Politically, it is hard to think of a more popular way to approach a new fiscal settlement, especially with the 'red-wall voters' who matter so much to the government's chances of winning the next election.

The path to faster productivity growth includes not repeating the mistakes of the early post-war years. The 'old-Labour' state interventionist approach to supply-side policy was rightly jettisoned by both political parties in the late twentieth century and should not be brought back now, even though it may appeal to the former Labour voters who switched to support the Conservatives at the last election (Mattinson 2020).[4] The focal point should be on innovation policy, in particular through facilitating the diffusion of new technology, including through technology transfer. Indeed, a substantial part of the social returns to research and development comes through its 'second face' in supporting the adoption of innovations (Griffith et al. 2004). More generally, 'absorptive capacity' is central to the effective assimilation and diffusion of new technology. Absorptive capacity is underpinned by education, skills and economic competences that include organisational effectiveness, management quality, appropriate business models and training, which are all areas where the UK has considerable scope to improve.

[4] As the Prime Minister obviously recognises. During the general election campaign he promised to 'back British business by introducing a new state aid regime which makes it faster and easier for the government to intervene to protect jobs when an industry is in trouble'.

There is a potential role for selective industrial policy in promoting sectors that are technologically progressive and in which learning spillovers across firms are likely to be important. Aghion et al. (2011) provide some evidence of the successful use of state aid in this context within the European Union, especially for countries with capital market weaknesses. They also stress the importance of using such policies in a competition-enhancing way rather than to sponsor national champions. This chimes with the lesson from the early post-war period that nurturing competition is important for productivity growth. A recent review by the Competition and Markets Authority (2020) highlights that a weakening of competition in the last 20 years or so should be addressed.

1.6 Conclusion

It is tempting to think that the 1940s offers a template for post-COVID reconstruction, but unfortunately it does not. The post-war settlement created a policy framework that impaired productivity growth for the next 30 years and does not provide a solution to the current post-financial crisis productivity slowdown. Nor should we turn to the 1940s for insights on how to reduce inequality. The Beveridge Report has iconic status in British political discourse, and it is understandable that people who want an improved welfare state invoke this report; however, Beveridge does not offer a blueprint for social security in post-pandemic Britain. Similarly, although health inequalities have been starkly underlined in the past year, the historical evidence suggests that a better-funded NHS would not be enough to eliminate these inequalities.

"It is tempting to think that the 1940s offers a template for post-COVID reconstruction, but unfortunately it does not."

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About the author

Nicholas Crafts FBA, CBE is Professor of Economic History at the University of Sussex and Professor Emeritus at the University of Warwick. He is president-elect of the Royal Economic Society, past president of the Economic History Society and former Director of the CAGE Research Centre. Among many editorial responsibilities he is a past editor of the Economic History Review. He has also been a consultant to BIS, HM Treasury, the International Monetary Fund and the World Bank. His research interests include Britain's Industrial Revolution and relative economic decline, the history of general-purpose technologies, and why growth rates differ.

Chapter 2: Remote work and the post-pandemic UK labour market

Mirko Draca Department of Economics, University of Warwick and CAGE Research Centre

Emma Duchini Department of Economics, University of Essex and CAGE Research Centre

Roland Rathelot Centre for Research in Economics and Statistics and CAGE Research Centre

Giulia Vattuone Department of Economics, University of Warwick and CAGE Research Centre

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2.1 Introduction

The 'forced experiment' with remote work since March 2020, brought on by the COVID-19 pandemic, has led to predictions that the UK labour market will feature much higher levels of remote work from now on. As COVID restrictions in the UK are slowly lifted, the key questions are: how much remote work will remain, and what will be the consequences for different types of workers?

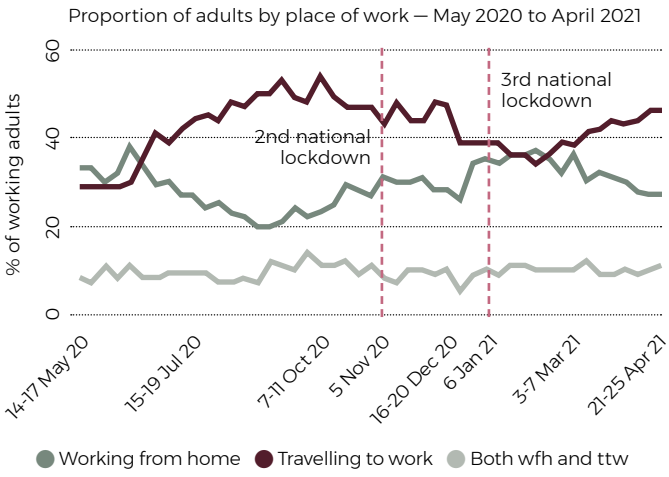
This chapter provides some insights into the future of remote work in the UK based on recent data, with three main focal points:

- **The UK has reached an upper limit:** The increase in remote work might be less than expected based on early pandemic hype. We argue that a 20–30% ceiling on the level of remote work in the labour market looks likely to hold, at least in the short run. This is because the expansion of remote work during the pandemic has been concentrated on areas where remote work was expected to be more feasible: the professional and managerial occupations.
- **Some jobs are changing:** The pandemic has led to a lot of experimentation with how work is undertaken. The data does indicate that the 'frontier' of what kind of work can be done remotely has been pushed out in administrative and sales occupations, but there is still a large range of occupations where the feasibility for remote work has not shifted.
- **Restructuring risks are coming into view:** There are early indications that a set of jobs in middle-income administrative and sales occupations face a potential displacement or restructuring risk from the rise of remote work. Specifically, there has been significant drop in the share of vacancies advertised for administrative and sales occupations. It's not clear how much of this drop is temporary as government economic support policies have frozen the usual pattern of labour market flows. The economic consequences of a comprehensive displacement of administrative, office-based occupations are similar in their potential scope to the impact of artificial intelligence (AI) technologies in areas such as road transport (e.g. autonomous vehicles) or call centres (e.g. chatbots).

2.2 Upper limits

The data collection efforts of the Office for National Statistics (ONS) allow us to track work patterns on a weekly basis. Figure 1 shows information from the weekly ONS Opinions and Lifestyle (OPN) survey (see overleaf). The proportion of working adults who worked exclusively from home (WFH) ranged between 20% and 39% over the course of 2020 and early 2021. A further 10% both WFH and travelled to work, while 40–50% exclusively travelled to work outside their home.

Figure 1: Place of work during the pandemic

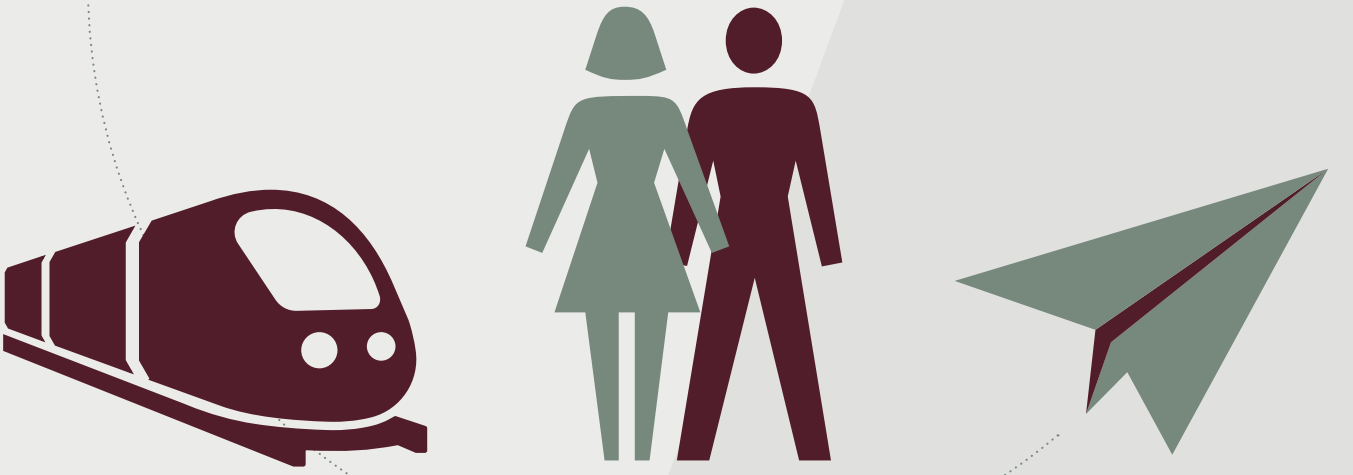


Note: This figure shows data on place of work from the ONS Opinion and Lifestyle Survey (OPN) (which has only been conducted since May 2020). The y-axis plots the percentage of working adults according to each place of work: travelling to work always, working from home always, and both working from home and travelling to work.

"The increase in remote work might be less than expected based on early pandemic hype."

Office for National Statistics (ONS) data

Opinions and Lifestyle Survey (OPN)



50%

APPROXIMATE NUMBER OF EMPLOYEES TRAVELLING TO WORK DURING THE PEAK OF LOCKDOWN

6,000

APPROXIMATE NUMBER OF ADULTS CONTACTED WEEKLY BY OPN

72%

AVERAGE RESPONSE RATE TO OPN SURVEY

THE OPN PROVIDES RAPID answers to questions of current policy interest, with a focus on public awareness of new policies. It began in late March 2020 as a weekly survey designed to provide information on how the COVID-19 pandemic was affecting people, households and communities in Great Britain. Around 6,000 adults are contacted every week, with the achieved sample approximately 4,000–4,500 individuals, an average response rate of 72%. Data collection is conducted predominantly by an online self-completion questionnaire.

The fluctuations in work patterns seen in Figure 1 bear the mark of social distancing policies. The most open period in September 2020 saw the full-time WFH share fall to 20%, with another 10% of employees in the partial WFH category. This estimate from September represents our best information for what the near future might look like. Surveys of employee preferences with regard to remote work indicate that many prefer a hybrid model of work locations (Mizen, Bloom and Taneja 2021).

So the most likely scenario for a (hopefully) social distancing-free late 2021 or early 2022 would be a shift of some full-time WFH employees into the part-time group. The overall labour market would therefore take the form of an 80:20 (or possibly 70:30) split between non-remote and remote work. That said, this is an average — remote work will be more or less prevalent across sectors or firms based on how the production of different goods and services is tied to face-to-face interactions.

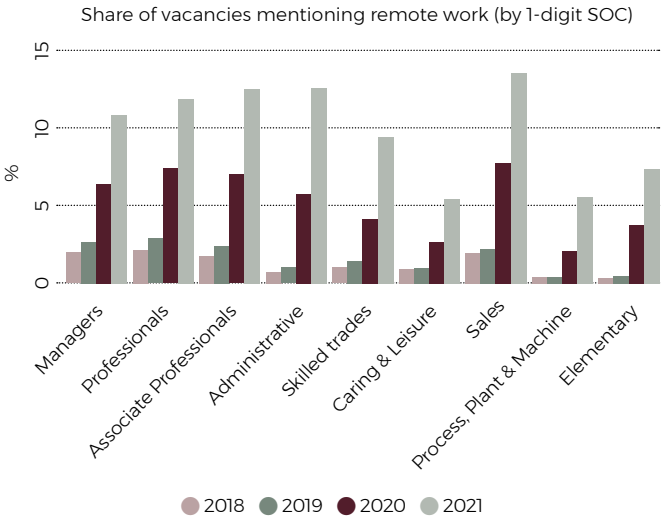
A striking aspect of the OPN data is that even at the peak of lockdown restrictions, around 50% of employees still travelled to a workplace on a full-time basis. This might surprise those working in the professional or managerial sector, where working remotely appears to have been the norm. There are still many jobs where working remotely is not feasible, and other data that we cover in the next section indicates that the scope for adapting these jobs to remote modes is limited.

2.3 The remote-work frontier has been pushed out, but only slightly

This part of the analysis uses online job vacancy data from the information company, Burning Glass Technologies (BGT). This data offers the opportunity to look at labour market trends at a high frequency and with rich information about the detailed occupational structure of vacancies. Further details are provided in Appendix A.

The measure of remote work used in this chapter is based on a text algorithm that searches for phrases associated with remote work, first developed by Duchini, Simion and Turrell (2020) (see Appendix A). Figure 2 shows the share of vacancies offering remote-work opportunities by the nine major groups of the Standard Occupational Classification (SOC). This shows very large jumps in the share of remote-work vacancies across occupations. Relative to pre-2020 levels, these jumps are most pronounced in administrative and sales occupations.

Figure 2: Share of remote-work vacancies across SOC1 occupations

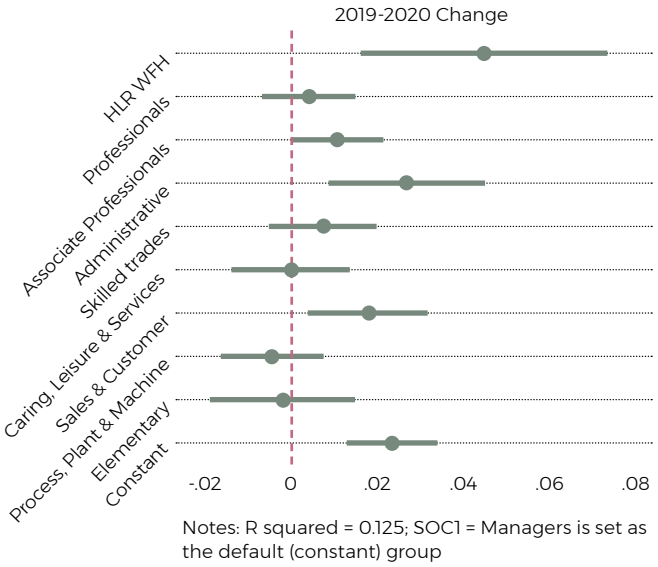


Note: This figure shows the share of vacancies by 1-digit SOC occupation and year in the text of the BGT advertisements that contain remote-work keywords. Details of these remote-work keywords are listed in Appendix A. Source: BGT vacancies data (see sidebar for details).

It is useful to consider how to benchmark these changes against the pre-pandemic labour market. Figure 3 relates these changes to a measure of the pre-existing potential for remote work at occupation level. This measure (from Hensvik, Le Barbanchon and Rathelot 2020) is based on occupation-level data on average hours worked at home from the American Time Use Survey. Intuitively, it can be thought of as representing the pre-2020 occupational 'frontier' for the feasibility of working remotely. US data is used here as it has the most detailed occupational breakdown available. Furthermore, it can be argued that any correlation between this US measure and UK remote working practices will reflect the intrinsic feasibility of remote work for an occupation rather than country-level factors.

The results in Figure 3 show that this measure of feasibility does a good job of explaining the rise in remote work for most occupations. For the professionals group, for example, the estimate indicates that the expansion of remote work vacancies was in line with the established feasibility of working from home. However, for the administrative and sales groups there were significant increases above established feasibility. The estimates indicate that around 25% of the rise in vacancies for these occupations was a distinct effect that went beyond what could have been expected based on trends before the pandemic.

Figure 3: Conditional change in remote-work shares across SOC1 occupations

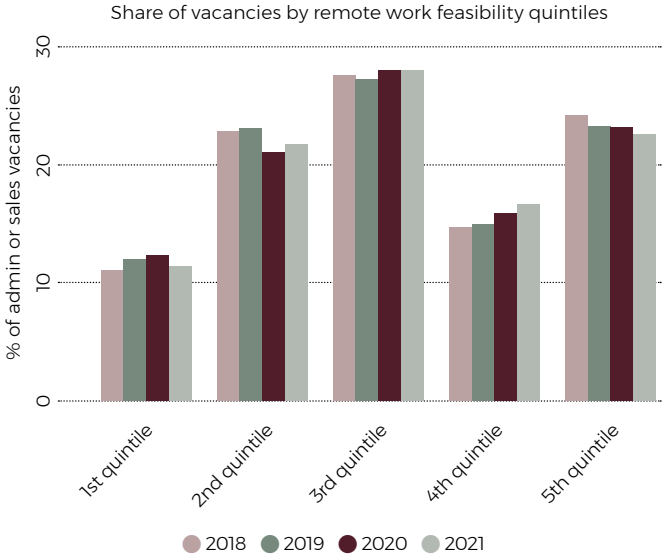


Notes: R squared = 0.125; SOC1 = Managers is set as the default (constant) group

Note: The regression uses robust standard errors. Coefficient estimates and 95% confidence intervals on SOC1 dummy variables in a regression of the change in the SOC4-level share of remote-work vacancies between 2019 and 2020. A control for the Hensvik et al. (2020) measure is also included in this regression (denoted HLR WFH). The constant reported in this regression represents the effect for the baseline SOC1 group of managers. Source: BGT vacancies data collapsed to SOC4 level.

It may be wondered whether this shift in the remote-work frontier for administration simply reflects a shift in the types of jobs being advertised, such as an increase in the share of telephone-sales vacancies. However, this does not seem to be the case. Figure 4 shows the share of all vacancies across five bands of pre-2020 feasibility. The SOC4 occupations within administrative and sales were split into five groups according to the level of remote-work feasibility. The fact that the shares are flat across the different years implies that the composition of vacancies has not changed. The frontier of what can be done remotely for administrative and sales occupations has moved out evenly across all the jobs in these groups. In short, there has been a general reassessment of the feasibility of remote work in administration and sales.

Figure 4: Compositional Change in Administrative and Sales occupations



Note: The five quintiles of remote-work feasibility are constructed by dividing the SOC4 occupations into five groups based on the value of the Hensvik et al. (2020) measure of remote-work feasibility. Source: BGT vacancies data.

2.4 Early signs of 'restructuring risk' are coming into view

This section considers the implications for employment of these structural shifts in remote working. However, first we must recognise that since March 2020 the labour market has been in an unusual state of 'suspended animation'.

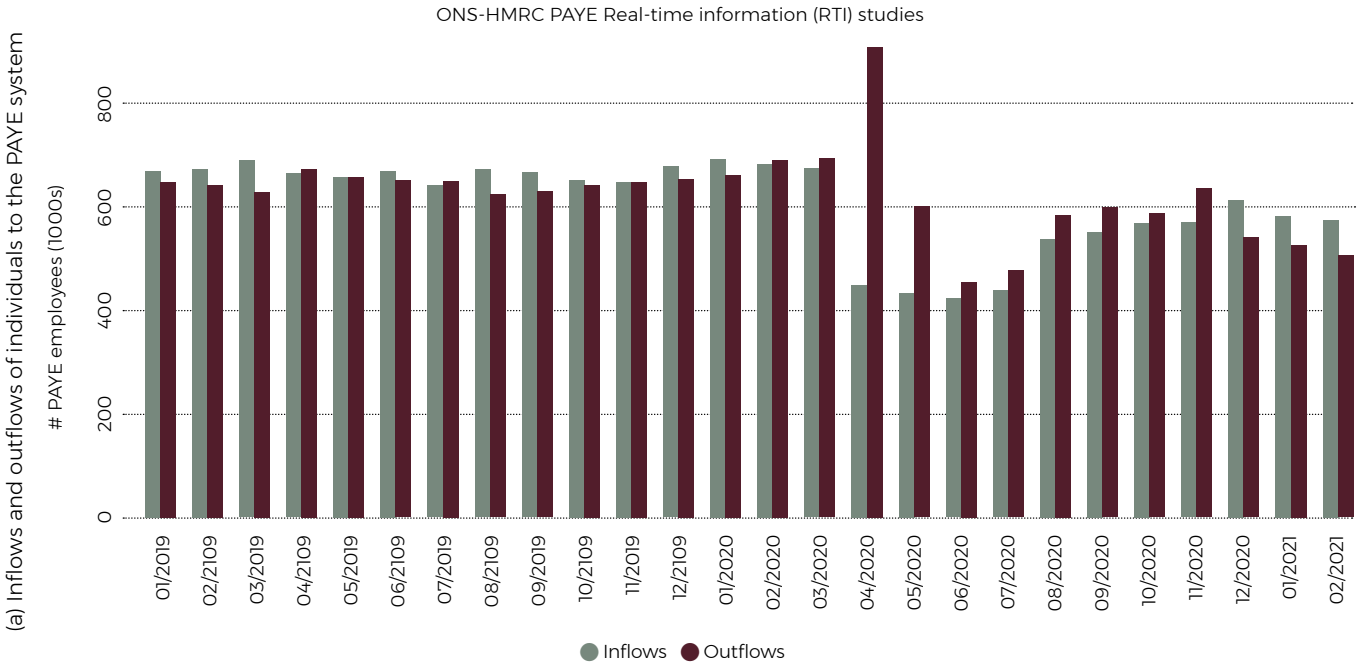
Figure 5 shows tax inflows and outflows using data from the ONS HMRC-PAYE Real Time Information (RTI) release, which is derived from administrative tax data. Before the pandemic, there were around 600,000 inflows and outflows from PAYE employment per month. This represents new people joining or leaving employer payrolls and is therefore a good representation of the regular 'churn' of the labour market.

As Figure 5(a) shows, there was a large spike of exits early in the pandemic (consistent with rising unemployment in mid-2020) and there have been more muted flows since then. Figure 5(b) shows the sum of inflows and outflows (churn) to get a better idea of how the fluidity of the labour market has changed. It shows that since the pandemic began (as of February 2020), churn has been running at around 1.1 million inflows and outflows per month, compared with 1.3 million in 2019 — a 15.4% fall.

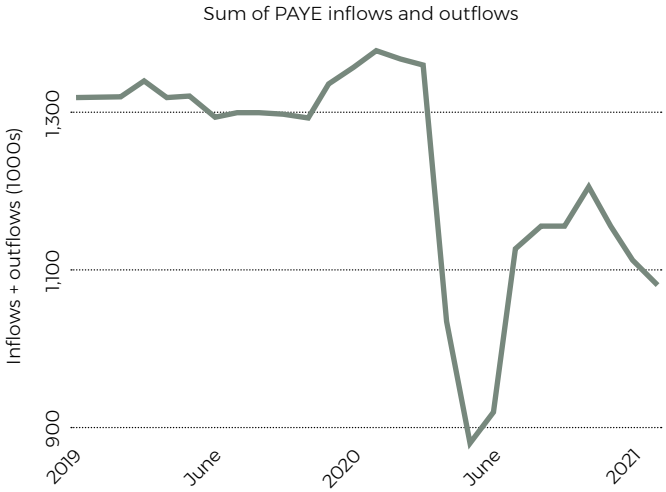
A big contributing factor here is the impact of the Coronavirus Job Retention Scheme or 'furlough', a government support scheme that has helped employers pay workers who have not been able to do their jobs because of pandemic restrictions. On average, 4 million workers per month have been on furlough since the start of the scheme — about 13.8% of the payrolled workforce in 2019. However, this still leaves a reasonable amount of the fall in churn to be explained and, in any case, the complex rules around partial furlough make it hard to conclude that this part of the labour market can be considered as completely frozen.

The data on labour market flows indicates that a notable consequence of the pandemic has been a slowdown in the regular process of reallocation in the economy. 'Reallocation' occurs when certain activities stop operating and release their labour and capital resources back into the economy to be redeployed in new activity. A big concern regarding exiting the pandemic economy is that this 'creative' redeployment and the opportunity for efficiency gains in the long term will be lost. However, before considering this it's worthwhile to try and understand what kind of reallocation has been taking place during the pandemic.

Figure 5: Labour market churn during the pandemic



(b) Total churn

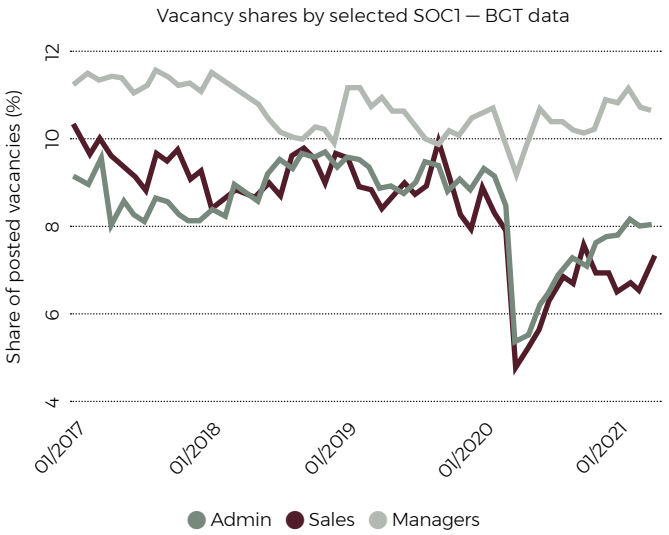


Note: This figure shows information on labour market inflows and outflows based on the ONS HMRC-PAYE Real Time Information (RTI) release. Figure 5 (a) shows inflows and outflows broken down separately, while Figure 5 (b) gives a time series plot of inflows plus outflows.

Vacancy trends during the pandemic

The BGT vacancy data shows where labour market inflows have still been taking place during the pandemic. Figure 6 highlights vacancy shares per month over a five-year period for three SOC1 occupational categories that summarise the evolution of this side of the labour market. The share of managerial vacancies is largely steady, but there has been an incomplete recovery in the shares for administrative and sales occupations. These groups are still around 1% lower than their pre-pandemic level in terms of their shares, and the problem is exacerbated by the fact that the volume of all vacancies has fallen. For the ONS data on vacancies and jobs in the UK (Office for National Statistics, 2021), this fall in the number of total vacancies is around 19% when comparing the periods February–April 2021 and December 2019–February 2020.

Figure 6: Vacancy shares for selected SOC1 occupations



Notes: This figure shows the total share of posted vacancies for three SOC1 groups (professionals, administrative occupations and sales occupations) on a monthly basis since January 2017. For example, vacancies for professional occupations represented 11% of all BGT recorded vacancies in February 2021. Source: BGT vacancies data.

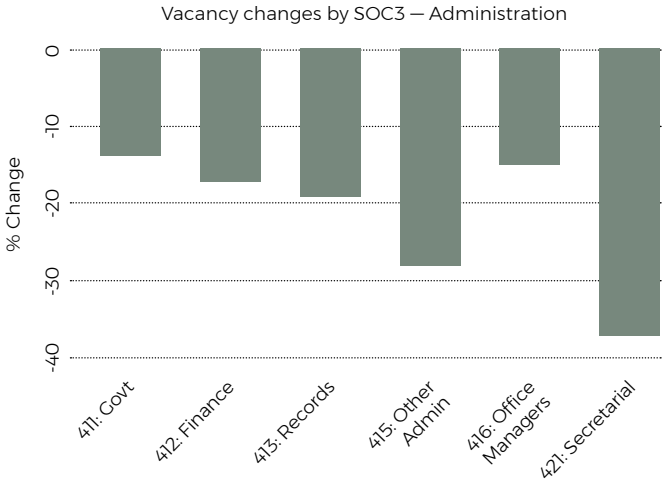
That is, there have been fewer vacancies to 'go around' and these occupational groups (administration and sales) make up a smaller share of vacancies overall. In practice this means that there has been a major reduction in the availability of entry and mid-level office work.

The change in vacancies over 2019 and 2020 within these SOC1 groups is shown in Figure 7, which breaks them down according to SOC3 occupations and calculates the percentage change in vacancies for each between 2019 and 2020. This shows that secretarial and other administrative occupations have been the hardest hit within the administrative SOC1 group, with a 25–35% fall in vacancies. This pattern of falls would be consistent with firms cutting back on hiring on-site office workers during the pandemic. Receptionists are the classic example – there is no demand for such a position if social distancing is in effect and offices are closed. Other similar affected occupations would be office managers and clerical assistants, which are both part of the 'other administrative' group looked at later on in this chapter.

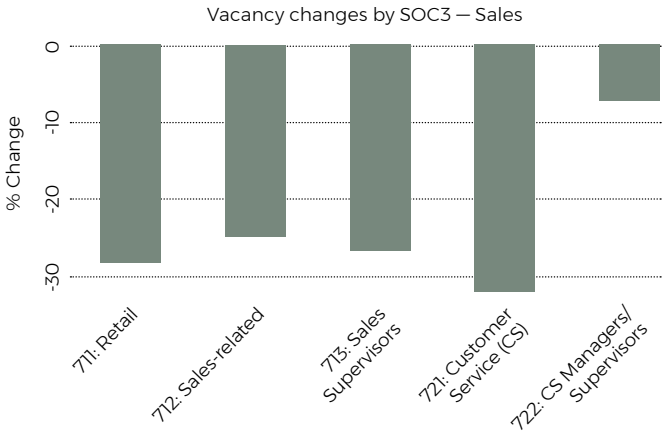
The fall in vacancies across sales occupations is more evenly distributed, although managers seem to have been insulated. Notably, there are still large falls in the customer service sub-group, which is heavily concentrated on call centre-style operations.

Figure 7: Change in vacancies for SOC3 Administrative and Sales occupations, 2020 versus 2019

(a) Administrative



(b) Sales



Note: This figure shows the percentage change in vacancies at the SOC3 level between 2020 and 2019 for the BGT database. Calculated based on calendar year total for each year (January–December).

The trends so far in the administrative and sales occupations indicate a potential pattern for post-pandemic labour market adjustments. Specifically, cutting back face-to-face office activity through increased remote work is likely to have an impact on the administrative staff whose functions are most complementary to physical office space. Similarly, as e-commerce grows, retail-oriented sales positions will also face restructuring or elimination.

A key empirical question for the post-pandemic labour market is the extent of the occupational rebalancing that might occur. It is important not to exaggerate the potential scope of this. Figure B1 in Appendix B shows that there were small drops in the share of administrative and sales vacancies over both 2020 and 2021. ONS vacancy

data shows evidence of a drop in administrative vacancies relative to those for professionals (Figure B2, Appendix B). However, even if there is minimal change at the aggregate level, there is clear potential for concentrated impacts that mirror earlier periods of change in the labour market.

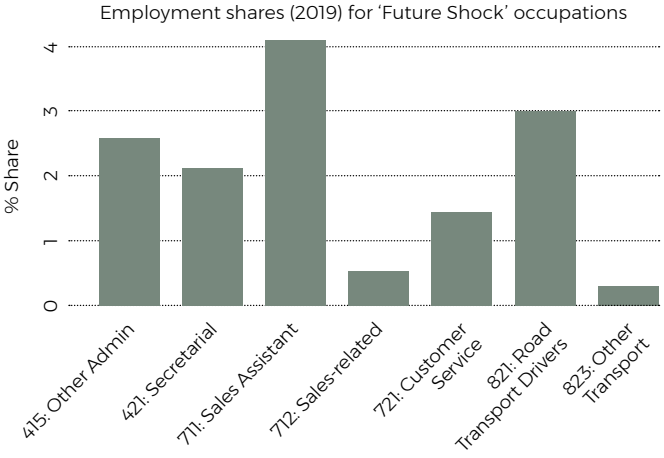
Restructuring scenarios for the post-pandemic labour market

So far during the pandemic, policy has focused on freezing the labour market in its 2019 form via policies such as furlough; however, readjustment when these policies end is inevitable. It is not possible to accurately forecast the extent or speed of this readjustment, but the size of the labour segments facing restructuring risk can be quantified.

An instructive comparison here is the impact of artificial intelligence (AI). Although the smooth or systematic impact of AI is also hard to predict accurately, it is possible to work out the parameters of some specific scenarios that involve new technologies. In short, there are a range of 'super-invention' technologies that can be clearly anticipated. For example, a roll-out of autonomous vehicles is likely to take place over the next 5–15 years, which has the potential to affect the (heavily male) driving workforce. Similarly, advances in 'chatbot' technology are likely to displace human call centre operators. The potential job losses or 'displacements' that arise in relation to specific technological or organisational changes can be referred to as cases of 'restructuring risk'. They are a sub-category of the overall displacement risks that are associated with general economic shocks (for example, the closure of a factory due to import competition or a recession).

Figure 8 shows the labour market shares of a range of occupations that can be classed as vulnerable to 'future shocks', i.e. disruptions due to new technologies or organisational developments such as the rise of remote work. This indicates that the office administrative group (SOCs 415 and 421) are each comparable in size to the driving workforce (transport drivers, SOC 821), which represents about 3% of total employment. The call centre group (SOC 721) represents around 1.5% of employment. Other transport workers (SOC 823) are also included, which represents workers in areas such as air and rail transport who could plausibly be affected by a general post-COVID reduction in travel (e.g. business travel).

Figure 8: Employment shares (2019) for selected occupations at risk of 'future shock' disruption



Note: This figure shows the employment shares of selected SOC3 occupations calculated from the UK Labour Force Survey (2019).

This is a very small group, around 0.25%, and only increases by another 0.15% if a generous definition that encompasses other groups (such as transport associate professionals, SOC 351, which includes aircraft pilots and controllers) is used.

The practical question for policy in the 2020s is how quickly disruption might unfold, as this will influence the size of the adjustment challenge. For example, the 3% figure for the UK driving workforce physically represents approximately 830,000 workers, who are mainly male with an average age of 47. The adjustment of these workers will clearly be easier if there is a 10–20-year transition to autonomous vehicles, rather than the sort of swift, decimating disruption that hit industries such as video/DVD retail and newspaper advertising in the 2000s and 2010s.

Brynjolfsson, Rock and Syverson (2019) have sketched out scenarios for the roll-out of autonomous vehicles that include benign countervailing effects, i.e. increases in overall jobs due to the productivity impacts of the technology. However, the record of technologically driven worker displacements, such as the post-1970s decline in manufacturing, is not good. The Edin et al. (2020) study of technology-related occupational decline in the United States and Sweden found large, negative lifetime earnings effects (around 8–11%) for workers at the lower end of the wage distribution.

The suddenness of the pandemic means that remote work has the potential to be a swiftly disruptive force, in this case targeted at an overall labour market segment that represents 4.5% of the workforce in the case of the most affected (i.e. administrative occupations). Monitoring the evolution of this part of the labour market is therefore a priority for labour market analyses in 2022, as social distancing is withdrawn.

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About the authors

Mirko Draca Professor of Economics at Warwick University and Director of the CAGE Research Centre. His research interests span a range of empirical topics in labour markets, technological change and political economy. He is currently the Principal Investigator on two ESRC-funded projects related to the measurement and analysis of future technologies, and the labour market impacts of the COVID-19 pandemic.

Emma Duchini is Assistant Professor of Economics at the University of Essex and a CAGE Associate. She specialises in labour economics, personnel economics, the economics of education and gender. She holds a PhD from the Universitat Pompeu Fabra and was a Postdoctoral Research Fellow at the University of Warwick.

Roland Rathelot is Associate Professor at the Centre for Research in Economics and Statistics (CREST) and a CAGE Associate. His research deals with the job-search process and discrimination against ethnic minorities. He is a research affiliate at the Jameel Poverty Action Lab (JPAL) and external research fellow at the Centre for Research and Analysis of Migration (CReAM).

Giulia Vattuone is a PhD Student at the University of Warwick specialising in labour economics.

Appendices

Appendix A: Measuring remote work in vacancy data

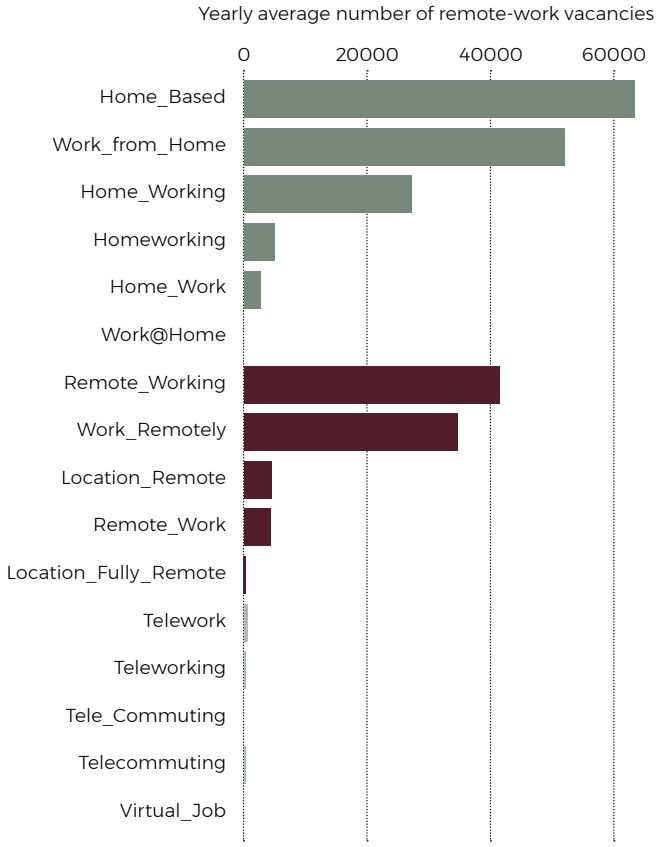
The main dataset for this chapter comes from the online job vacancies information maintained by the information company, Burning Glass Technologies. BGT is a well-known vendor of online job vacancy information for both commercial and academic use. The company webscrapes information across online sources and de-duplicates entries in order to capture the universe of vacancies in a given country as comprehensively as possible.

The UK iteration of the BGT data used in this chapter begins in 2011 and comprises approximately 30 million vacancies in total. The name of the firm or organisation posting a vacancy can be directly identified for 30% of all vacancies, with the remainder being vacancies advertised via a third-party recruiter. All of the vacancies are used in this research to construct aggregate and occupation-level datasets, with vacancies restricted to the subset when doing firm-level analysis.

A straightforward approach is taken to characterising vacancies as offering remote-work opportunities. Specifically, 15 keywords or phrases that signal remote work were identified, such as 'work from home', 'home-based', 'tele-commuting' or 'virtual job'. A given vacancy is classified as remote if at least one of these keywords or phrases is used in the advertisement. The search is based on words found at https://timewise.co.uk and the official definition of flexible work arrangements by the Advisory, Conciliation and Arbitration Service (ACAS). This vocabulary is complemented with other expressions identified via a data-driven approach (these additional expressions were found in the BGT data).

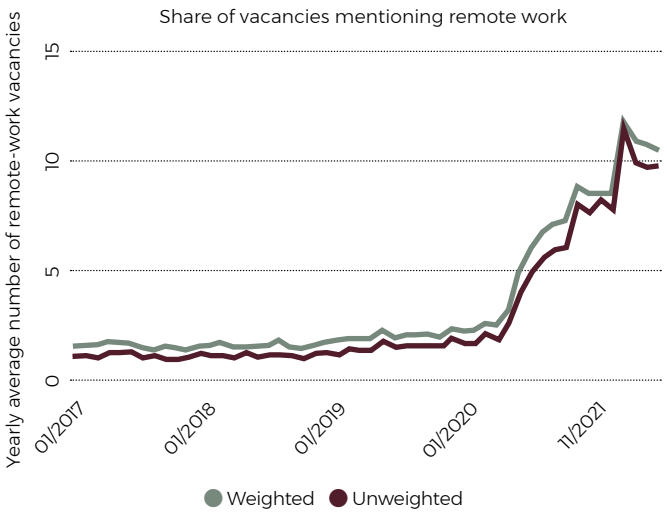
Figure A1 shows the frequency of the terms, which are organised into three clusters. The first cluster, for 'home-based' work, is the largest. As a robustness exercise, a sample of 400 job vacancies was manually audited to test for false negatives, i.e. vacancies that could plausibly be classified as remote-work positions but that were not picked up by the algorithm. Only 2/100 false negatives and 2/100 false positives were identified. On reviewing the algorithm and adding some terms, it was not possible to eliminate false negatives.

Figure A1: Remote-work keywords in BGT data, 2017-2021



Note: This figure shows the breakdown of the remote-work keywords used to classify vacancies. The length of each bar represents the yearly average number of remote-work vacancies in the period 2017-2021. The colour coding indicates different groupings of words, which are listed on the y-axis.

Figure A2: Monthly evolution of remote-work vacancies



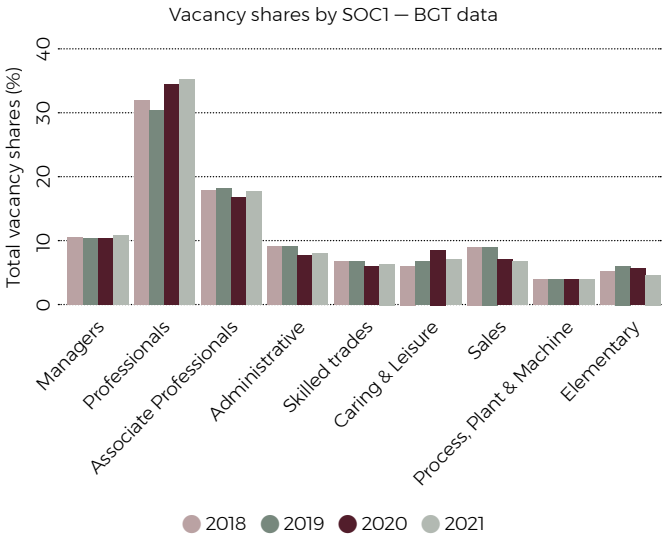
Notes: This figure shows the share of remote vacancies in total vacancies in the BGT data. The weighted measure pools across all vacancies (i.e. it is the weighted aggregate), while the unweighted measure is the mean across SOC4 occupations.

The share of remote vacancies in total vacancies is shown in Figure A2 on both a weighted and unweighted basis. The unweighted measure calculates the mean across occupations, while the weighted measure pools the vacancies into one aggregate measure before calculating the remote-work shares. Both measures show comparable increases in the share of remote-work vacancies, reaching 11–12% by early 2021.

This is notably lower than the incidence of remote working seen in the ONS OPN data. In part this will be because the two data sources differ in qualitative coverage — the OPN covers the existing 'stock' of employees, while the BGT vacancies data measures one aspect of the 'flow'. That said, the gap is large, and a major question for further analysis is whether the availability of remote-work options is going unstated in job advertisements. In principle, this does not affect the basic analysis of remote-work trends as long as stock measures are correlated with vacancy-based flow measures at the occupation level. The research team is currently in the process of matching the OPN and BGT data at the occupation level to conduct this validation exercise.

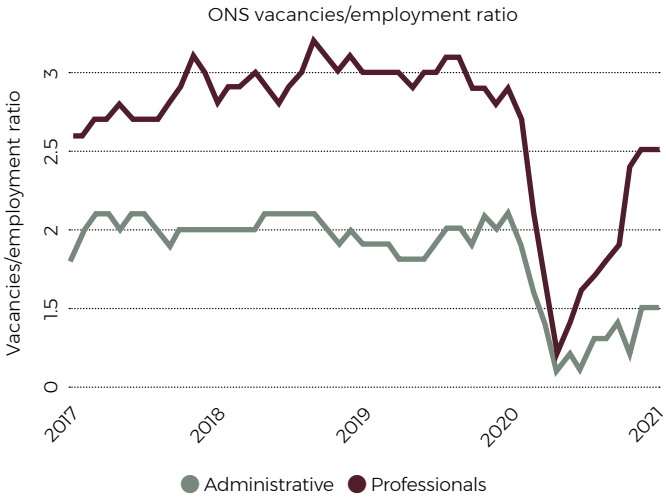
Appendix B: Other evidence on vacancy trends

Figure B1: Vacancy shares by SOC1 occupation and year



Notes: This figure shows the total vacancy shares of SOC1 groups across years in the BGT data. Source: BGT vacancies data.

Figure B2: Evidence from ONS vacancy series



Notes: This figure shows the vacancy to employment ratios from the aggregated files for the ONS Vacancy Survey . Information is presented on the professionals and administrative categories as these can be most closely compared to the definitions constructed using BGT data. Source: ONS Vacancy Survey (aggregated data).

"The UK iteration of the BGT data used in this chapter begins in 2011 and comprises approximately 30 million vacancies in total."

Chapter 3: The impact of the COVID-19 pandemic on London as a global financial centre

David Chambers
Cambridge Judge Business School
and CEPR

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3.1 Introduction

How will the UK financial sector be affected by the COVID-19 pandemic? And how will these effects interact with those arising from the Brexit process? This chapter argues that the probable impacts of the pandemic and Brexit can best be understood in terms of three factors that have guided the long-run development of the City of London: globalisation, regulation and technology.

There has been a dramatic increase in the size of the financial sector within the overall UK economy since the 1970s. Total bank assets grew from 60% of gross domestic product (GDP) in the 1960s to a peak of over 500% before the 2008 global financial crisis (Davies and Richardson 2010, chart 7). In contrast, US bank assets grew to only 100% of GDP. The difference in the relative size of the two financial systems largely reflects the emergence of the UK — and of the City of London in particular — as the leading global financial centre. When including non-bank financial institutions, the total financial services sector in the UK doubled over the same time period, peaking at 850% of the overall economy measured by gross value added. In the aftermath of the 2008 crisis, the relative importance of the sector has diminished somewhat, due in part to the increased financial regulation to which both banks and other financial institutions have been subjected.

"The pandemic itself is unlikely to overturn the fundamental competitive position of the city."

The City of London is a prime example of a successful agglomeration economy (Schenk 2019). Over the long run, the City has benefited from the emergence of a large pool of skilled labour, the pre-eminence of the English language in business, the transparency of the British legal and regulatory system, and London's first-class transport links to other major cities around the world. London's dominant position within the UK financial sector has evolved over the twentieth century, when British banks began to geographically spread across the country. By 1919, the 'big five' banks — Barclays, Lloyds, Midland, National Provincial and Westminster — had emerged following a period of intense merger activity (Turner 2014, ch. 3), and all had their head office in London. In the case of securities trading, activity remained geographically dispersed as late as the 1930s, with over 20 provincial stock markets around the UK (Thomas, 1973). By 1973, only the London Stock Exchange remained. In both banking and securities trading therefore, the dominance of the City of London is primary evidence of just how effectively the considerable gains to clustering in financial services have been exploited (Schenk 2019).[1]

The key findings of this chapter are that over the long run, three factors — globalisation, regulation and technology — have been of overriding importance to the growth of Britain's financial system.

In summary, the contribution of each factor has been as follows:

Globalisation: The history of the UK financial sector can be understood in terms of two inflection points or 'reversals' in the process of financial globalisation — a process which has ebbed and flowed along with the openness of trade and capital flows around the world. The first reversal occurred around 1913 and the decade that followed, when London's capital markets, having grown steadily over the previous century, fell into a prolonged period of relative decline. The second reversal coincided with the reforms introduced by the Thatcher government beginning in 1979, which restored London's capital markets to global pre-eminence. This remains the situation today. As with the 1913 reversal, the City of London again witnessed a decades-long change in its fortunes following the 1979 reversal.

[1] These same factors, especially regulation and technology, feature in Thomas Philippon's long-run analysis of US industrial competition, including that of the financial sector (see Philippon 2019, ch. 12). Notwithstanding the economic shock of the current COVID-19 pandemic, the same factors remain central to the future of London and the UK as a global financial centre.

Regulation: Regulation has had a major influence on the financial sector over the twentieth century. By the mid-twentieth century, rules and regulations in both banking and securities markets led to a rise in anti-competitive behaviour. Beginning in the early 1970s, a series of deregulatory reforms, first in banking and then in the securities business in the 1980s, stimulated competition both domestically and internationally and helped to rejuvenate the City. Over the last three decades, many regulatory changes have been closely linked to the development of a single market in financial services within the European Union (EU). Being the leading financial centre in Europe, the City of London has been a prime beneficiary of this development. Following Brexit, the UK is now confronted with, on the one hand, the challenges arising from the likely erosion of regulatory 'equivalence' for Britain across the EU's financial markets and, on the other, the promise of pursuing a more independent, regulation-light path, the benefits of which remain uncertain.

Technology: Technological change has been central to the growth of the financial sector, and Britain's economy in particular, since the arrival of the transatlantic cable in the 1860s. The information and communications technology revolution over the last quarter of the twentieth century has played a similar role in facilitating the growth of the financial sector globally, and the City was no exception. At the time of writing, a new technology- (and pandemic-) related question is whether the rise in remote working will reduce the importance of financial centres such as the City of London. Whilst there may be lasting de-agglomeration effects from the change in working practices, these effects will be common to all major city-focused financial centres and as such will most likely not affect the relative competitiveness of the City of London.

Finally, we cannot ignore Brexit. Its consequences remain at least as important as those of the pandemic for the future competitive position of the City of London and its institutions, especially in the context of regulation.

3.2 The roles of globalisation, regulation and technology

Globalisation

The 'Great Reversals' meta-thesis of Rajan and Zingales (2003) argues that there were two major inflection points in global financial development over the last century and a half. These reversals in financial development are strongly correlated with the openness of trade and capital flows in the global economy. As a percentage of GDP, global net capital flows peaked at around 4% in 1913, fell back to 1.5% in the 1930s and then to 1% in the 1960s, before recovering to pre-1913 levels in the years before the 2008 global financial crisis (Capie 2002; IMF 2014).

In large part, the ebb and flow of London as a financial centre broadly fits with this meta-thesis. Britain's leading position in international finance peaked around 1913, though this peak was not obvious at the time. For a decade after the First World War, the government and Britain's major financial institutions lived in the hope – exemplified by sterling's return to the gold standard in 1925 – of reasserting the pre-eminent position of the City. Such hopes were dashed by the banking and currency crises of 1931 and the subsequent slide of the international economy into autarky over the rest of the decade as capital controls were imposed in many countries. The new architecture of international finance negotiated at Bretton Woods in 1944 both confirmed the balkanisation of global capital markets started in the 1930s, and at the same time represented the final eclipse by the United States as global financial hegemon of a war-impoverished Britain.

The removal of exchange controls by the incoming Thatcher government in 1979 triggered the re-emergence of London as a leading global financial centre, alongside New York, in banking, foreign exchange and securities trading. In the latter case, the London Stock Exchange became a major venue for the listing of foreign firms, while both domestic and foreign financial institutions became expert in managing global investment portfolios from a London base. Over the past four decades, modern finance has witnessed a significant transition, with a marked growth in the importance of asset management and of new channels of (household) credit intermediation relative to traditional banking (see Greenwood and Scharfstein 2013 for the United States as the same applies to the UK). This trend reflects the ability of the finance sector to innovate and create new products and services, as well as the response of banks and financial institutions to deregulation.

Regulation

Whilst regulation to improve investor protection and strengthen banking stability is critical for financial development, regulation of the wrong kind can restrict competition in financial services. During the nineteenth and early twentieth centuries, investors were left to their own devices when trading securities; thereafter, successive attempts were made to better protect them. Following successive crises, the position in banking started to improve earlier — during the last quarter of the nineteenth century — largely thanks to the monitoring role played by the Bank of England.

During the early and middle parts of the twentieth century, however, both banking and securities trading displayed a lack of competition in keeping with other industries in Britain. Competition and credit control ushered in by the Bank of England in 1971 ended clearing bank collusion in setting interest rates and nudged banking into a more competitive era. Other landmark deregulation events included the sweeping away of foreign exchange controls in 1979, and the 'Big Bang' in 1986, which ended wide-ranging anti-competitive practices at the London Stock Exchange. The latter removed fixed brokerage commissions and brought a close to the enforced separation of banks, stockbrokers and stockjobbers. This provided a huge stimulus to competition and led to a radical realignment of the major banks and financial institutions as foreign capital flowed into the City of London.

At the time of writing, Brexit is of fundamental importance in determining the future course of financial regulation in the UK. The City benefited enormously from the UK being part of the European single market. By the late 2010s, exports of financial services were six times imports, generating a surplus of £50 billion. Around 40% of this trade was with the EU. Taking the specific example of European share trading, more than 50% was executed in London before Brexit. Immediately after UK financial firms lost blanket access to the EU on 1 January 2021, under the so-called single market passporting regime, London's market share fell to around 25%, a level less than that of Amsterdam (Stafford 2021).

The outcome of ongoing negotiations with the EU over financial regulation remains highly uncertain. A central question is whether the EU will grant regulatory 'equivalence' to the UK financial services sector, or use this opportunity to onshore certain strategic capital market activities by imposing regulations which effectively limit competition from London. An alternative way forward is for the UK to become the 'Singapore of Europe' and pursue a low financial regulation (and low tax) agenda in order to remain globally competitive in attracting business from the rest of the world outside the EU. As with trade, this will almost certainly involve swapping the certainty of a large European market in financial services for less certain but possibly faster-growing markets elsewhere, principally in Asia.

Technology

Advances in information and communication technology have benefited banking and financial services since the nineteenth century. Beginning with communications in the late 1860s, the completion of the transatlantic cable stimulated cross-border securities trading and investment flows, and in the process improved price transparency between the London and New York stock markets (Hoag 2006). In the early twentieth century, the diffusion of the telephone began to improve communication and order flows between London and the provincial stock markets (Michie 2001). Turning to information technology, in the 1970s large banks able to make the necessary upfront capital investment could successfully exploit the economies of scale (and scope) in transaction-intensive areas such as trade execution and post-trade settlement across equity and fixed income securities, derivatives and foreign exchange (see Morrison and Wilhelm 2007 on the transformation of investment banking). In the past two or three decades, information technology has also benefited front-office analysis in credit decision making, securities trading and portfolio management. More recently, the application of machine learning, artificial intelligence and big data analysis to banking and financial services is being widely pursued across the sector (see e.g. Jung et al. 2019).

The strong technological undercurrents influencing finance have been given a boost by the COVID-19 pandemic. The lockdown has led to a further shift of consumer activity online in many businesses, a development which has further strengthened the already dominant position of so-called Big Tech (Facebook, Amazon, Alphabet, etc.). These firms now have an opportunity to exploit this position and to look to disintermediate traditional banking. This possibility is explored further below.

At the same time, the rapid diffusion of cloud-based video conferencing services has accelerated a shift to remote working. This change in the pattern of work may lead to some unravelling of the powerful forces of agglomeration that have been so much in evidence to date in financial services. As we emerge from the pandemic, we may as a result be witnessing a peak in the relative importance of the City of London within the domestic UK economy in terms of output and jobs. However, this new development is not particular to London; it can be imagined that all big cities around the world, and therefore other leading global financial centres, are being affected in a similar way and that their importance within their domestic economies is thereby diluted.

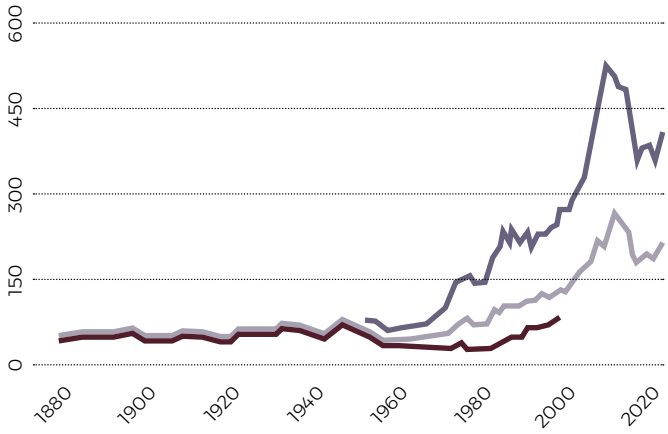
3.3 UK banking before and after the 2008 global financial crisis

The 2008 global financial crisis (GFC) was only the second major banking crisis that Britain has experienced in two centuries. It was devastating in its impact on both financial markets and the real economy in the UK and elsewhere.[2] This section reviews how the interaction of the three factors — globalisation, technology and (de)regulation — has influenced UK banking in the run-up to and the aftermath of this crisis.

Figure 1 shows the long-term growth in the UK banking and finance sector relative to GDP. Until the mid-twentieth century, the UK banking system exhibited steady but modest growth, rising from 50% of GDP in the 1880s to around 80% in the late 1940s. The dark purple line depicts UK retail banks, whilst the light grey line includes building societies, merchant banks and fringe banks. The total-assets-to-GDP ratio for both UK — and foreign-owned banks resident in the UK (dark grey line) starts in 1951 and rises dramatically to peak in excess of 500% just prior to the 2008 GFC. Subsequently, it has fallen back to around 400% as the banking sector has deleveraged. In the 1950s, foreign-owned banks resident in the UK were relatively insignificant, as implied by the difference between the light grey and dark grey lines. From the 1970s onwards, the growth in foreign banks resident in the UK has accounted for the bulk of the rise in the overall bank-assets-to-GDP ratio.

When including non-bank financial institutions, the total financial services sector in the UK doubled over the same time period and peaked at around 850% of the overall economy measured by gross value added.[3] This acceleration in the growth of the financial sector in the UK is broadly consistent with the second reversal in financial globalisation discussed above and the subsequent influx of foreign banks and other financial institutions into London.

Figure 1: UK banking system assets (residency basis), % of GDP



- All UK-resident Monetary Financial Institutions (MFIs) including foreign-owned banks and building societies.
- UK-owned and resident MFIs including building societies, merchant banks and fringe banks.
- UK-owned and resident clearing/retail banks (up to 1996).

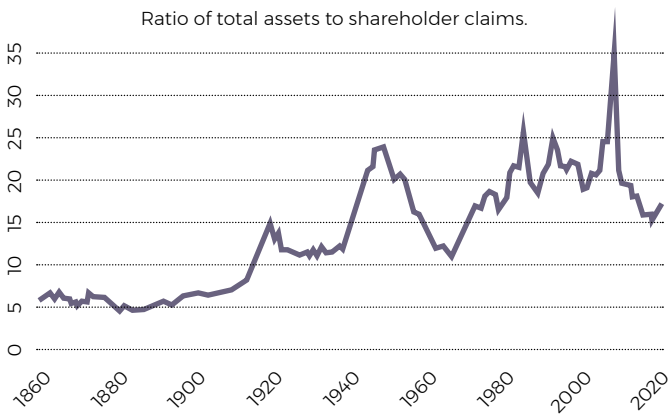
Note: Derivatives recorded on a net accounting basis. Capie and Webber's (1985) deposit data for private banks is used to extrapolate Sheppard's series for private bank assets from 1891 back to 1880. Pre-1920 data includes all Irish banks, after 1920 only Northern Irish banks included. Source: Sheppard (1971); Capie and Webber (1985); Bank of England Statistical Abstracts and Bank of England database https://www.escoe.ac.uk/research/historical-data/money-banking-and-credit

Along with the growth in the importance of banking in the UK economy over the past half century, the sector also witnessed rising concentration, culminating in the largest six banks accounting for 80% of UK customer lending and deposits by the time of the 2008 GFC. In the later decades of the twentieth century, globalisation created abundant opportunities for firms — both domestic and foreign — to diversify their financing away from traditional bank overdrafts and loans into bond and equity finance. Following the opportunity delivered by the Big Bang, commercial banks, both domestic and foreign, met this demand by expanding into securities issuance, underwriting and market-making, and in the process absorbed the majority of independent investment banks to become universal banks.

[2] Over the crisis period, bank shares fell 80% in 2007–08. The next worst crises were in 1974, a decline of 63%, and 1931, a decline of 25% (Turner 2014, p.58, Table 3.9).

[3] I am grateful to Ryland Thomas at the Bank of England for providing these figures.

Figure 2: Major UK banks – simple leverage ratio (%)



Source: 1860-1920: Sheppard (1971); Baker and Collins (2003). 1920-68: Billings and Capie (2007). 1969-76: the Wilson Report (1977) and published accounts. 1980-2020: the FPC core indicators derived from published accounts and regulatory returns. The series is based on the core major UK banking groups, using as consistent a peer group of insitutions as possible. The 1860-1920 period has been adjusted upward by 25% based on the hidden capital reserves estimated by Billings and Capie (2012) for the 1920-68 period.

The creation of these very large universal banks resulted in two fundamental and related problems for financial stability in the UK. First, the banks leveraged their balance sheets to a previously unprecedented extent. Figure 2 shows the rising trend in total-assets-to-equity-capital ratio for UK banks, starting from a very modest 5 times in the early 1900s and reaching a peak of around 35 times in 2008. Such unprecedentedly high leverage ratios meant that banks were extremely thinly capitalised going into the 2008 GFC. This leveraging by banks was driven by their management seeking to shift balance sheet risk from shareholders (including, of course, themselves) to depositors (Turner 2014). The surge in leveraging in the decade prior to the GFC was due to the particular unwillingness of bank management and shareholders to adequately capitalise the higher-risk investment banking business independently from the lower-risk commercial banking business. It also reflected how banks were pursuing regulatory arbitrage within the Basel Accord on capital adequacy by shifting their balance sheets towards supposedly lower-risk assets such as residential mortgages (risk-weighted at 50%) rather than higher-risk commercial loans (weighted at 100%).[4]

[4] Under the Basel Accord, fully operational from the end of 1992, bank assets were risk-weighted and capital held in varying amounts against those assets depending on the risk weight of each type of asset. Hence, Tier 1 capital ratios of UK banks on the eve of the 2008 GFC were around 8% (Turner, 2014 Table 7.2) and so appeared well in excess of that implied by a leverage ratio of 35 times — a simple ratio which ignores any risk-weighting.

Second, the existence of these complex mega-banks left the regulators and the government with a 'too-big-to-fail' problem. Bush, Knott and Peacock (2014) emphasise that it is not the size of the banking system in itself but its complexity, the degree of leverage and the uncontrolled asset growth which are critical in undermining financial stability. In other words, there existed an implicit government subsidy deriving from an expectation of the government stepping in and bailing out depositors and other lenders to large banks — 'implicit' in that banks are not explicitly charged for this guarantee by their creditors and the costs of the subsidy are ultimately borne by the taxpayer. This subsidy just after the GFC was substantial. In the case of the UK, it was estimated within a range of $20 billion to $110 billion — larger than the US figure of $15 billion to $70 billion (IMF 2014).

The bank overleveraging problem was addressed in the aftermath of the crisis by a commission of enquiry led by John Vickers. Its final report published at the end of 2013 recommended that the investment and commercial banking businesses be 'ringfenced', and that bank capitalisation ratios be raised (and leverage reduced) substantially (Independent Commission on Banking 2013). At the same time, the UK government has set out to address the 'too-big-to-fail' problem post-crisis by once again tasking the Bank of England with supervising individual banks, including through stress-testing, and with monitoring risks in the entire financial system via the Financial Policy Committee (FPC), established in 2013.

As of today, UK banks are better capitalised than they were a decade ago, as illustrated by the sharp fall in the leverage ratio from 35 times to 15 times (Figure 2). They are also somewhat better regulated, as investment banking activities from January 2019 finally became ringfenced from their commercial banking activities (Proudman 2018). In addition, the previously lightly-regulated shadow banking sector — comprising broker-dealers, securitisation vehicles, finance companies and money market funds — has shrunk by around one-third in the decade post-2008 in response to tighter regulation. With the improvements made in the core banking system, the Bank of England has shifted its focus towards monitoring non-bank financial institutions such as investment funds, pension funds, insurance companies and hedge funds, as these have continued to grow strongly post-crisis to a point where their total assets are now six times those of the shadow banks (Brazier 2018). The investment portfolios of these non-banks represent as much a source of considerable risk to the real economy, both in the UK and globally, as do the balance sheets of more traditional banks. As a result, the Bank of England is interested in understanding how well the portfolios of these institutional investors can withstand systemic risks such as asset firesales and sudden cash calls on derivative positions.

3.4 The City of London post-COVID

The past few years have witnessed the dramatic rise of Big Tech represented by dominant online network firms that can combine e-commerce, payments and social networks into 'payment platforms' (see Brunnermeier 2021).

In the past, the private information that historically accrued to banks via the close monitoring of their customers had great value in their making credit decisions and in cross-selling other products. Today, a firm such as Facebook, which knows almost all there is to know on the spending behaviour of its customers, is in prime position to cross-sell mortgages and other financial products.

As such, the new technology platforms threaten to undermine this information advantage and to disintermediate traditional banks. In addition, the new digital currencies associated with these large payment platforms may lead to payment services being packaged with an array of data services, and in the process further eat away at the information rents of traditional banks (Brunnermeier et al. 2019). Well-known examples include WeChat's and Alipay's digital wallets in China; Facebook's digital currency; and via Libra, a type of 'stable coin' pegged to a basket of official currencies. These platforms represent a potential competitive threat to the traditional banking system — both private and public.

The pandemic itself is unlikely to overturn the fundamental competitive position of the City. Rather, the effects of the pandemic must be understood in terms of how it interacts with the influences which have shaped the City of London over the long run, namely, globalisation, regulation and technological change. One longer-term consequence of the pandemic therefore is the extra impetus given to the shift in the competitive landscape within traditional finance by the rapid adoption of new technology.

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About the author

David Chambers is Invesco Professor in Finance and Co-Founder and Co-Director of the Centre for Endowment Asset Management at Cambridge Judge Business School, Cambridge University, and a Research Fellow of the Centre for Economic Policy Research (CEPR). His research has been published in leading finance and economic history journals and has been covered in the *Financial Times*, *The Wall Street Journal*, *The New York Times*, *The Economist*, *Forbes* and the *Nikkei Shimbun* as well as the BBC and Bloomberg TV. Prior to returning to full-time education in 2001, he worked for 20 years in investment banking in asset management, mergers and acquisitions, and venture capital in Europe, Japan and the United States.

Chapter 4: Happiness and unhappiness in the UK during the COVID-19 pandemic

Andrew Oswald Economics Department and CAGE Research Centre, University of Warwick

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4.1 Introduction

This chapter aims to describe what we know about psychological wellbeing in the United Kingdom during the coronavirus pandemic of 2020–21, with a particular focus on the young. Although academic economics has sometimes been slow to recognise it, human feelings are of crucial importance. They shape our behaviour and are the ultimate bottom line in our lives. Money, personal relationships, health, jobs, safety and a sustainable environment — all are merely a means to an end. Happiness and mental wellbeing are not a means to an end. They are the end.

Key findings

- The evidence suggests, consistent with common sense, that UK adults experienced a large rise in anxiety and a substantial fall in psychological wellbeing with the onset of the coronavirus pandemic. Measures such as happiness, life satisfaction and anxiety in the UK exhibited their most severe movements in recent history. We know this thanks to the UK government's systematic collection of wellbeing data for over nearly a decade now.

- These movements in wellbeing are so large that they are comparable to the changes observed for major events in individuals' lives such as divorce, unemployment or serious health problems. Weekly data shows that wellbeing in the UK has varied with the severity of social-distancing policies, with a persistent gap in wellbeing relative to pre-pandemic levels in summer 2021. The changes in wellbeing during the pandemic are also notably unevenly distributed, with the young (aged 16–29) experiencing a particularly sharp increase in anxiety relative to the old (those aged over 70).

- It is known from previous research that humans are often able to bounce back psychologically from extremely sad events such as bereavement. However, as explained later this is not a guarantee in the face of all of life's shocks, and particularly not in the case of pandemic-induced unhappiness.

The young suffered in a marked way that may still not be fully grasped by politicians and some citizens. Although there are now grounds for optimism in our country, at the time of writing (in autumn 2021) the UK is still far short of psychological recovery. Wellbeing indicators reached their lowest point in the winter of 2020/21, when a second major lockdown was implemented, and the subsequent 'recovery' has only restored levels to those seen in the early phase of the pandemic.

"These movements in wellbeing are so large that they are comparable to the changes observed for major events in individuals' lives such as divorce, unemployment or serious health problems."

4.2 Wellbeing and the pandemic in a historical context

A natural source of reliable information on wellbeing is the regular surveys run by the UK Office for National Statistics (ONS). Since 2012, the ONS has collected a set of official estimates of happiness, life satisfaction, anxiety and worthwhileness of life (The Personal Wellbeing in the UK survey). These come from large random samples of the population and allow us to put the effects of the pandemic on wellbeing into context.

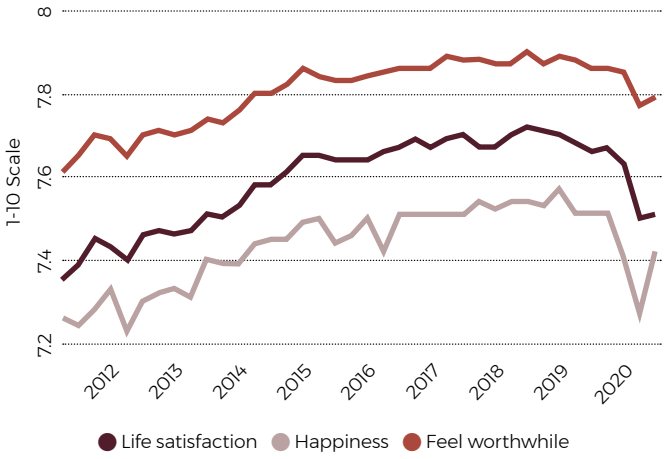
Figure 1(a) reports quarterly levels of indicators for life satisfaction, happiness and feeling worthwhile since 2011 using this survey. Figure 1(b) then plots information for the anxiety indicator separately as it is a 'negative' indicator of wellbeing, with variation at the opposite end of the 1–10 measurement scale relative to the other 'positive' indicators. It is clear that the pandemic is associated with large, unprecedented changes in wellbeing, with anxiety levels in particular rising from 2018 by 15–20% on the vertical axis of Figure 1(b). Prior to 2020 there had been no abrupt change in any of the average wellbeing levels in Figure 1(a) anywhere close to the 0.3 point drop observed in happiness between 2019 and 2020. Overall, Figure 1 also shows that the pandemic appears to have reversed the gradual trend gains in UK wellbeing that occurred during the 2010s.

A drop in observed happiness of 0.3 points may seem small; however, it is important to understand the context for these changes in wellbeing. If looking at the detailed ups and downs of people's lives (using regression equations) it is typically found that becoming unemployed or having one's marriage break up, which are enormous life events, are associated with a movement of approximately 0.5 points on a happiness or life satisfaction scale. Daniel Gilbert, a psychologist at Harvard who specialises in topics such as human happiness, has explained that when people talk about changes as 'small' it is useful to remember the temperature of the human body. He pointed out that a normal safe temperature for the human body is typically 98.6˚F (37˚C). If you have a temperature of 100.5˚F (38˚C), you have a fever. If your temperature rises just a further 2 degrees, there is a fair chance you will die if you do not get to hospital. Hence, small changes can matter a lot depending on the system being analysed.

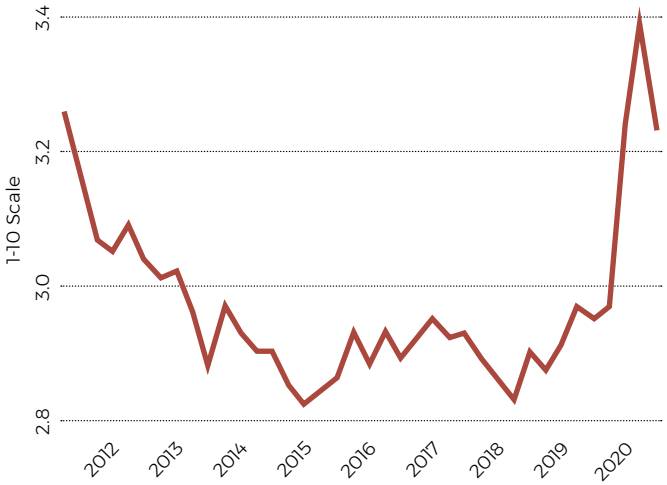
Furthermore, as explored below, this average 0.3 point change in happiness is not evenly distributed across individuals, which means that the pandemic is bound to figure as a major wellbeing life event for a significant group of people.

Figure 1: Quarterly well-being indicators, 2011-2020

a) Satisfaction, happiness and feeling worthwhile



b) Anxiety



Note: All indicators are measured on a 1—10 scale. The data source is the ONS Personal Wellbeing in the UK Survey.

4.3 Tracking psychological wellbeing during the pandemic

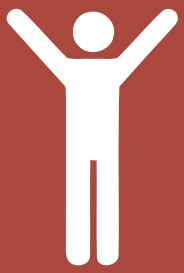
The ONS has further collected weekly and monthly data on wellbeing during the pandemic via the Opinions and Lifestyle (OPN) Survey. It is not ideal, in a statistical sense, to create average values from what, when viewed more accurately, are effectively ordinal data. But this has been undertaken for the purposes of this chapter, and is what the ONS itself often does when presenting wellbeing statistics.

ONS Opinion and Lifestyle Survey (OPN)

Life satisfaction

Q1.
Overall, how satisfied are you with your life nowadays?

Happiness



Q2.
Overall, how happy did you feel yesterday?

Worthwhile

Q3.
Overall, to what extent do you feel that the things you do in your life are worthwhile?

Anxiety

Q4.
Overall, how anxious did you feel yesterday?

THE OPINIONS AND LIFESTYLE Survey (OPN) is a weekly survey of 4,000–6,000 adults conducted by the ONS that is designed to collect information useful to the pandemic response. OPN information on remote work trends was used earlier in the report, and data from the Personal Well-Being module of questions is used here. There are four main questions in this module focused on life satisfaction, feelings of a worthwhile life, happiness and anxiety. The questions are designed to be compatible with the format of questions from existing ONS surveys of wellbeing (eg: Measures of National Well-Being Dashboard). Although the survey only begins in late March 2020, the ONS has calculated pre-pandemic benchmark measures for each of these indicators.

Source: ONS (2021). Personal Well-being in the UK, Quarterly: April 2011–September 2020.

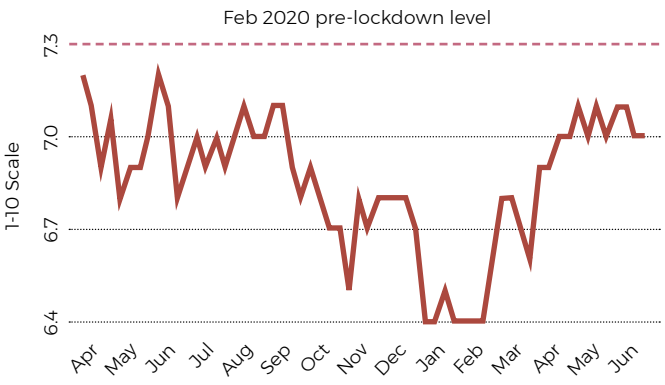
Figure 2 gives time-series patterns for various wellbeing measures from March 2020 to July 2021. These are means across the population. In each graph, the baseline pre-lockdown level, from February 2020, is marked as a dotted line. Note here that the OPN survey was specifically implemented to provide information for the management of the pandemic, hence the weekly data only beginning in late March.

Figure 2(d) illustrates the remarkable spike in UK anxiety at the start of the national lockdown (Prime Minister Boris Johnson addressed the nation via television on the evening of 23 March 2020). There was substantial improvement by the summer of 2020, but the anxiety score in July 2021 remains roughly where it was in late spring a year earlier.

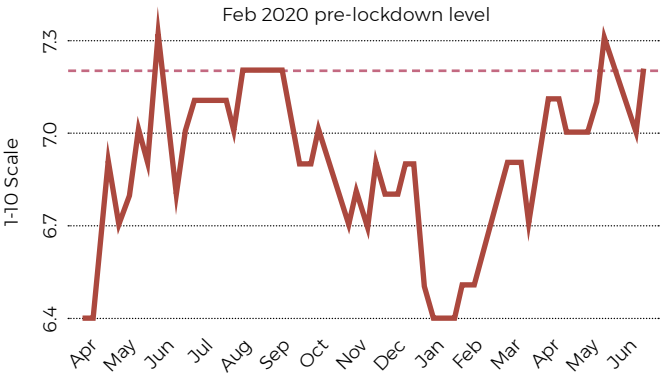
The life satisfaction and happiness levels in Figures 2(a) and 2(b) show similar patterns, as would perhaps be expected, and it is noticeable that there was a strong mini-recovery, in both series, from early January 2021 up to July 2021. That mini-recovery seems likely to have been triggered by the discovery and distribution of several vaccines. Hence, a notable feature of the weekly changes is that wellbeing is responsive to short-run policy changes, and that this may be especially the case for younger age groups.

Figure 2: Weekly changes in wellbeing, all persons, November 2020 – July 2021

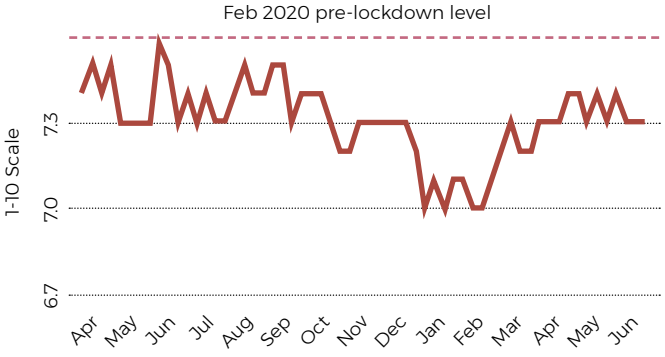
a) Life satisfaction



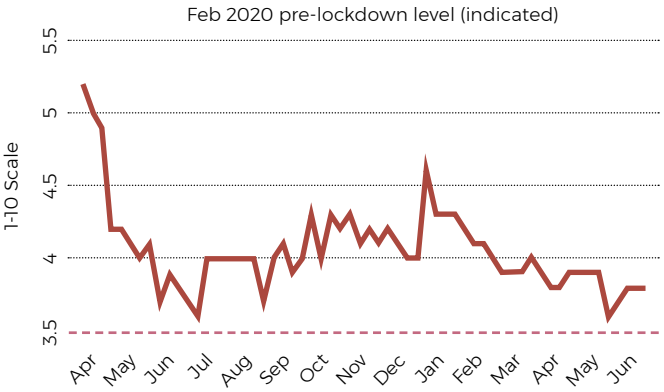
b) Happiness



c) Worthwhile



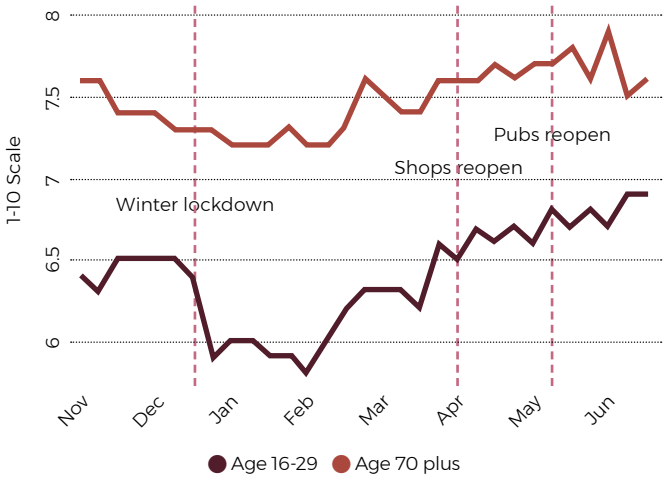
d) Anxiety



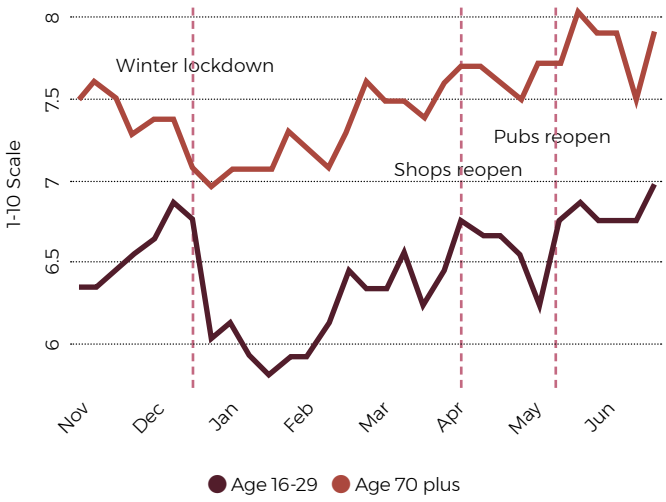
Note: All indicators are measured on a 1-10 scale. The data source is the ONS Opinion and Lifestyles (OPN) survey. The dotted lines represent pre-lockdown levels of these indicators.

Figure 3: Age differences in wellbeing, weekly, November 2020 – July 2021

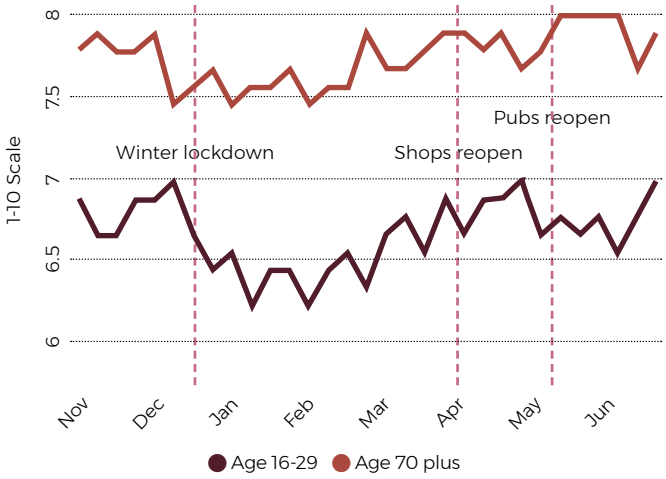
a) Life satisfaction



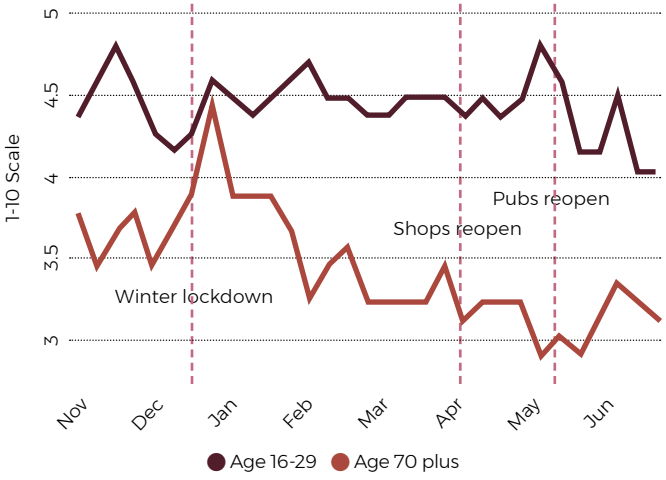
b) Happiness



c) Worthwhile



d) Anxiety



Note: All indicators are measured on a 1-10 scale. The data source is the ONS Opinion and Lifestyles (OPN) survey.

Figure 3 compares weekly indicators of wellbeing across the 16–29 and 70+ age groups, where it can be seen that the old are far happier than the young. (Note that this breakdown is only consistently available for the period since November 2020.) This data reveals how unpleasant this period of history has been for young UK citizens. The 'positive' indicators of wellbeing (life satisfaction, happiness and feeling worthwhile) fell more sharply for younger age groups around major events such as the winter 2020/2021 lockdown. Indeed, it is noticeable how rapidly wellbeing alters in the face of social-distancing policies, with clear recoveries in wellbeing also apparent in periods when non-essential retail shops and pubs/restaurants have been open. That said, the recovery in wellbeing levels for the young is far from complete. In particular, there is a persistent, large age gap in anxiety levels still evident by early July 2021. A key question for the future is how this additional wellbeing shock experienced by the young might persist and affect long-term life chances. As explained later, a body of research on wellbeing both before and during the pandemic provides some guidance here.

4.4 Other recent work based on microdata

Some of the broad findings noted above have already been explored, generally using survey data, in recent journal publications. An important aspect of this work is that it has utilised individual microdata rather than aggregated information. Hence, this work is able to control for the influence of multiple characteristics at the same time, for example, it can tease out the effects of being young from other compositional characteristics (e.g. gender, race, socio-economic group). Where panel data is available (i.e. observations on the same individuals across time) it has also been possible to compare wellbeing before and during the pandemic.

Banks and Xu (2020) evaluated the effects of the COVID-19 pandemic on mental health in the UK. They used the UK Household Longitudinal Study (UKHLS) and studied the period 2009–20. This long window allowed them to control for pre-existing trends in mental health, and construct individual-specific counterfactual predictions for April 2020 using linear regression methods. These predictions were then compared to the observed COVID-19 mental health outcomes, specifically focused on General Health Questionnaire (GHQ-12) scores.[1] Their analysis reveals large effects at the population level. As a benchmark, the effects are approximately equal to the pre-pandemic differences between the top and bottom quintiles of the income distribution. However, within this average population effect there are much bigger effects found for young adults[2] and for women. Since these groups already had lower levels of mental health before COVID-19, the pandemic has had the effect of exacerbating inequality.

Pierce et al. (2020) also studied changes in adult mental health in the UK during periods of lockdown, again using the GHQ-12 and the UKHLS. In line with the approach of Banks and Xu (2020), they exploited the longitudinal structure of the UKHLS but also focused on a repeated cross-sectional analysis to study time trends. They found that the prevalence of clinically significant levels of mental distress rose substantially in April 2020 and that the average GHQ-12 score also went up over time. Increases in GHQ-12 distress scores were at their highest for young people (aged 18–24), women, and people living with young children. There was also a worsening of GHQ-12 scores for the general population of workers already in employment at the start of the pandemic.

Fancourt et al. (2021) explored anxiety and depression trends over the first 20 weeks of lockdown in England from 21 March 2020 using the University College London (UCL) COVID-19 Social Study. This data has the advantage of being weekly and longitudinal, with a sample of 70,000 individuals who have at least three repeated observations across the course of the data collection. The tracked outcomes are centred on anxiety measures and depressive symptoms. Anxiety and depression levels worsened, with the fastest changes occurring during the 'strict' lockdown period (between weeks 2 and 5) and the indicators flattening as lockdown easing measures were introduced (between weeks 16 and 20). The risk factors are in line with the studies discussed above: women, the young, those with lower educational attainment or income, individuals with pre-existing conditions, and people living alone all experienced larger changes. Finally, while some inequalities in experiences were reduced as lockdown continued (and as individuals adapted), differences were still evident 20 weeks after the start of lockdown.

The key variable studied by Bu et al. (2020) was reported loneliness. The authors examined socio-demographic predictors of loneliness before and during the COVID-19 pandemic using cross-cohort analyses of data from UK adults surveyed both before the pandemic (again in the UKHLS) as well as during (in the UCL COVID-19 Social Study). Those with a higher risk of being lonely were: young adults, women, people with lower levels of education or income, the economically inactive, people living alone and urban residents. Presumably because of isolation, being a student emerged as a greater risk factor than typically seen in historical data.

Niedzwiedz et al. (2021) used the UKHLS to look at a broad set of health behaviours (eg. smoking, alcohol consumption) and mental health indicators. Psychological distress increased markedly by one month into lockdown. The people most adversely affected included: women, young adults, people from an Asian background and those with a university degree. In contrast to Bu et al. (2020), feelings of loneliness in this study remained steady. Smoking rates fell and the proportion of people drinking four or more times per week increased noticeably.

"Whether the young are aware of it or not, it is their generation who will be saddled with the exchequer costs of COVID-19."

Proto and Quintana-Domeque (2021) focused especially on different ethnic groupings in the UK in the UKHLS, again exploiting longitudinal information. Using the criterion of 'within person' changes in GHQ-12 scores, they confirmed the previously documented average deterioration in mental health in the UK. Women — regardless of their ethnicity — and Black, Asian and minority ethnic (BAME) men experienced a greater average worsening in mental distress than the average white British man. These ethnic/gender-specific alterations in wellbeing persisted after controlling for other personal characteristics.

4.5 Is there any reason for optimism now?

What will the future bring? There does seem to be cause for optimism. At the time of writing in 2021, vaccines have been widely distributed and are working. The main background concerns for the immediate future of happiness in the UK appear to be twofold. The first is the possibility of dangerous virus mutations, and the second is the consequences — particularly the possibility of 'super austerity' — of the large accumulated exchequer debts that have built up.

The younger generation, however, deserves our special consideration. First, and on the negative side, it is known, for example from Kahn (2010), that if young people start their working lives in a bad economy, there are lasting deleterious consequences through life for them. Second, on the positive side, humans as a species have an ability to bounce back, psychologically, from serious and sad events in life (in the research literature this is called 'hedonic adaptation'). However, this kind of psychological bounce-back is sometimes only partial (as explored in Oswald and Powdthavee 2008, who study disability) and seems to be almost non-existent in the case of the unhappiness and mental ill-health caused by job loss itself (see Clark and Georgellis 2013). At the aggregate level, moreover, there is little scientific knowledge about how much — in the very long run — it is possible for people to recover their original happiness levels after a pandemic. The UK's younger citizens have endured a huge drop in happiness and wellbeing, and will presumably be the ones, at some point in the future, who will have to pay for the debts built up by the government's furlough and other spending programmes.

If I had to make a prediction, it would be that the older part of the population will recover their pre-lockdown levels of wellbeing by 2022. It is harder to say whether young adults will be able to do the same. On average, they have had a miserable time since March 2020, and, whether the young are aware of it or not, it is their generation who will be saddled with the exchequer costs of COVID-19. Thus they may have to put up with years of austerity if public services are cut to offset the background debt caused by the 2020–21 coronavirus support policies.

In my own view, which may be unconventional, younger women and men in the UK have arguably — to date — not been treated well by policymakers. Severe risks remain for the future wellbeing of our younger citizens. A genuinely caring society would wish to design some type of conscious programme of post-pandemic intervention to stop the wellbeing shock to the young from persisting through their lives. Whether the old care enough about what has happened to the young, or have actually thought through the fact that the younger generation will pay off most of the tax bills run up to support the health of older citizens,[3] is hard to say. It appears to me, and I hope to others, that there is a moral case for intergenerational redress of some kind.

[1] A so-called GHQ score is, put loosely, a measure of mental distress. It is created by summing the integer answers to 12 questions about whether the person has been feeling depressed, sleeping poorly, etc.

[2] The literature has highlighted disputes about the desirability of lockdowns and about whether the young (who are relatively little-affected by the virus) should have been 'released'. See for example Fujiwara et al. (2020); Layard et al. (2020); Miles et al. (2020); Oswald and Powdthavee (2020); Reddy (2020); Rowthorn and Maciejowski (2020); Van Rens and Oswald (2020). A recent and very interesting paper by Foa et al. (2020) argues that lockdown itself was desired by, and helpful psychologically to, the majority of the UK population.

[3] It should be recalled that young people were far, far less at risk from the virus than the old. The latest data reveals that almost 99% of coronavirus deaths have been in those aged over 45, and that deaths among those under 30 were particularly unusual.

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About the author

Andrew Oswald is Professor of Economics and Behavioural Science at the University of Warwick and a Senior Research Fellow at CAGE. His research is principally in applied economics and quantitative social science, including the COVID-19 crisis and health economics, job satisfaction, human happiness, mental health, unemployment, labour productivity and the influence of diet on psychological wellbeing. He has held previous full-time and visiting positions at Oxford University, the London School of Economics, Princeton University, Dartmouth College, Harvard University, Cornell University, IZA Bonn, the University of Zurich and Yale University. He serves on the board of editors of Science journal. He is an ISI Highly Cited Researcher.

"In my own view, which may be unconventional, younger women and men in the UK have arguably – to date – not been treated well by policymakers. Severe risks remain for the future wellbeing of our younger citizens."

Chapter 5: Cities still matter: the impact of COVID-19 on regional structure

Mirko Draca Professor, Department of Economics, University of Warwick and CAGE

Max Nathan Associate Professor, Bartlett Centre for Advanced Spatial Analysis, University College London

Carmen Villa Llera PhD Student, Department of Economics, University of Warwick Economics and CAGE

5.1 Introduction

The COVID-19 pandemic has led to much discussion about the potential socio-economic shifts that may lie ahead. A central part of this discussion has been the possibility that COVID-19 could reconfigure current urban and regional structures in the UK if, for example, the increase in remote work prompts more geographical decentralisation.

This chapter discusses this possibility using recent data centred on England and Wales, with a specific focus on the housing market, which is arguably the central market for determining the spatial distribution of economic activity. The main finding is that the urban and regional structure of England and Wales has been remarkably resilient in the face of the COVID-19 shock. This resilience effectively means that — so far — the pandemic has not redirected the 'push-and-pull' factors that underpin the status quo. This conclusion is based on the following evidence:

- There has been minimal change in transaction volumes and median prices across different types of urban and non-urban areas as a result of the pandemic. Market activity recovered strongly after large drops early on in the pandemic.

- The 'race for space' — whereby housing demand shifts away from the most central locations towards suburbs or rural areas — has so far been a race with a small number of mainly wealthy players. For example, a relative price spike for housing in village areas is underpinned by only around 5,000 transactions. In short, only a limited number of households have (so far) decided to exercise a choice that is in line with a strong desire for more space.

- The recent history of the UK's pre-pandemic housing market is indicative of robust trends that will be hard to dislodge. House prices in London grew strongly during the 2010s relative to the rest of the country. For example, in 2010 house prices in London were 1.7 times higher than prices in other cities in England and Wales, but were 2.2 times higher by 2020.

- While prices in London have been rising relative to the rest of the country, the wage differential has been static. Wages in London are around 40% higher than the rest of the country, but most of this differential is explained by the fact that there are more highly skilled workers in London. More importantly, this differential has hovered around 40% since at least the mid-2000s.

- The combination of rising house prices and static relative wages in London bit into disposable incomes during the 2010s. In 2012, Londoners had disposable incomes that were around 20% higher than the rest of the country, but by 2018 this advantage had been cut by one-fifth.

In summary, the historical context shows that the 'pull' factors of London and the South East have been resilient enough to resist any rising pressures for an exodus based on rising housing costs and falling disposable incomes. The shock delivered by the pandemic is unlikely to overturn these existing trends. The central lesson for policymakers is simple: agglomeration economies — particularly those rooted in London and the South East — are extremely strong. A major objective of current government policy has been 'levelling up', which can be interpreted as the reduction of regional inequality in the UK. Any future polices directed towards 'levelling up' need to be based on a realistic view of agglomeration. If COVID-19 has not reshaped the economic geography of the UK, then it is hard to see how politicians will be able to do so.

"Any future polices directed towards 'levelling up' need to be based on a realistic view of agglomeration."

As part of expanding on these arguments, the following analysis will:

- Consider the incentives for push and pull by asking four key economic questions.
- Analyse the impact of the pandemic to date on the housing market in England and Wales.
- Place the impact of the pandemic on the housing market into the historical context of the UK's housing affordability crisis.
- Conclude by drawing out the implications for policies directed at 'levelling up'.

5.2 'Push and pull': Four economic questions about the impact of COVID-19

If the pandemic is going to lead to a major reshaping of urban and regional structure, it is important to consider what would need to change and what would be the major incentives at play. This section sketches out a framework based around four economic questions, and following the discussion by Nathan and Overman (2020):

Why move?

There are two main reasons to move as a consequence of the pandemic. The first is voluntary choice (for example, moving to acquire more space to exploit working-from-home opportunities) and the second is necessity (moving somewhere cheaper as the result of income losses).

Who would move?

Older, richer households are more likely to move out of choice. We know, in particular, that professionals and managers have jobs well suited to working from home. So far, a sharp spike in unemployment has been avoided and income support schemes such as Universal Credit have been temporarily enhanced. This has limited the pool of people who might need to move out of necessity.

Where would they go?

If moving from choice, people will head to larger properties with outside space located in the suburbs or at the edge of cities. There is also scope for moves outside of cities or into smaller towns or rural areas. Crucially, movements out of choice will not necessarily be to substantially cheaper locations. In contrast, movements from necessity will tilt heavily towards migration to more affordable areas.

Why wouldn't people move?

Urban amenities are the fundamental 'pull' factor for cities. The consumption upsides of urban living may continue to outweigh the need for space. This will apply most to younger and highly skilled workers (Ahlfeldt et al. 2020). It may be difficult to 'unbundle' cities from the working and personal lives of this group. The productivity gains of face-to-face interactions in dense environments directly coincide with amenity value, which refers to how the characteristics of an area contribute to satisfaction. The amenity value of cities is usually defined as being rooted in social goods (such as entertainment options) and in the availability of a wider range of consumer choices.

These questions underpin how we should understand trends in housing and labour markets, and determine the potential for different policies to be successful in affecting the geography of economic activity.

5.3 Housing markets during the pandemic

Business as usual (almost)

The housing market in England and Wales is a rich source of empirical insight about the answers to the four economic questions outlined above. Housing transaction data from HM Land Registry provides a high level of detail on the evolution of the market since 1996. More information on this data and how it has been processed for this report can be found in Sidebar 1 on data sources.

Data sources

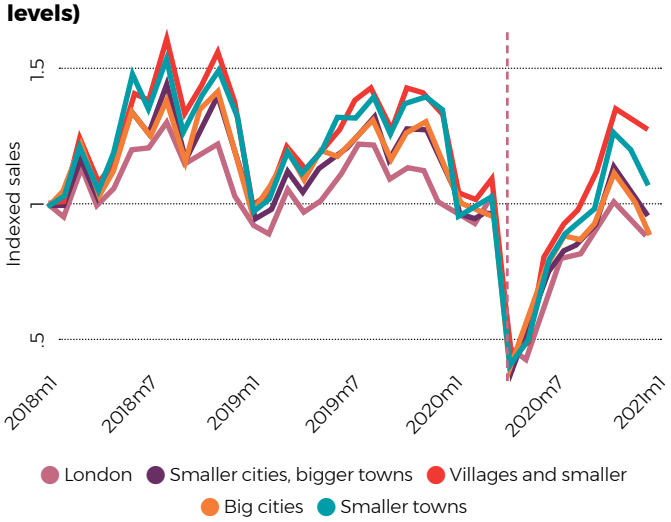
THIS REPORT USES OFFICIAL transaction data from the Land Registry's Price Paid dataset, which contains information for England and Wales between 1995 and 2020. This data is combined with ward profile information and variables from the 2001 and 2011 Census from the Office for National Statistics (ONS). This allows for the creation of estimates of the socio-economic profile in each area, such as ethnicity, employment and migration indicators. Points of Interest data since 2015 from the Ordnance Survey is also included.

Rural/urban classification indicators from the ONS, which are available for England only, are merged. The indicators use population density information from the 2011 Census to assign each area to a rural/urban category. The report aggregates across all the categories to have three exclusive possibilities: London, rural and other urban areas.

This dataset is complemented with available indicators on hourly wages from the publicly available version of the Annual Survey of Hours and Wages, which has yearly statistics at the local authority level for between 2012 and 2020. For 2020 the provisional statistics available have been used. The information that concerns this report is the number of jobs in an area and the distribution of hourly wages for full-time employees. Additional information on net income from the ONS income estimates for small areas database is matched, which is available every two years between 2012 and 2018 at a middle layer super output area (MSOA) level.

Affordability is measured by looking at the house-price-to-earnings ratio across the country. The latest available income data is from 2018. The report uses this figure and looks at median house prices since 2018 in each ward, normalised over income.

Figure 1: Volume of house sales 2018-2021, monthly by area type in England. (Sales indexed to January 2018 levels)

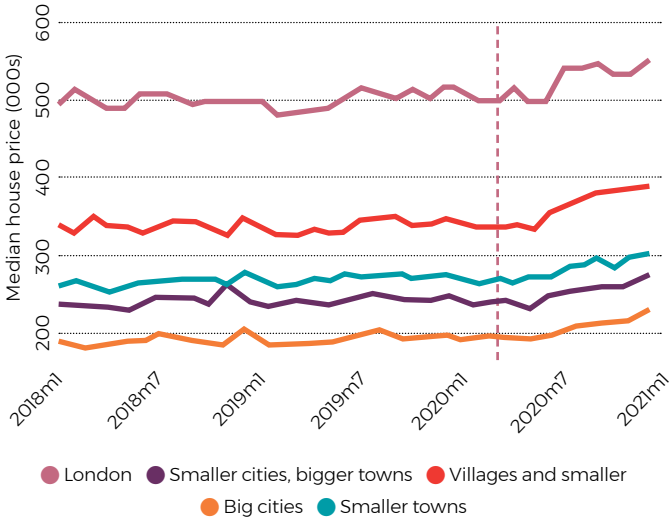


Note: The graph shows the number of monthly transactions per urban/rural category between January 2018 and December 2020. Total transactions are normalised to January 2018 levels, such that the y axis is an index. Transaction data is from the Land Registry.

Figure 1 focuses on the volume of sales by urban/rural category, with each series normalised according to baseline levels in 2018. This allows us to see the impact of the pandemic in both absolute and relative terms. By late 2020, the market had bounced back from an approximate 50% decline in sales at the start of the pandemic. Figure 1 shows that there has been no sign of any 'tilt' in volumes towards non-urban areas, with the current trend for lower indexed volumes for London seen before the pandemic.

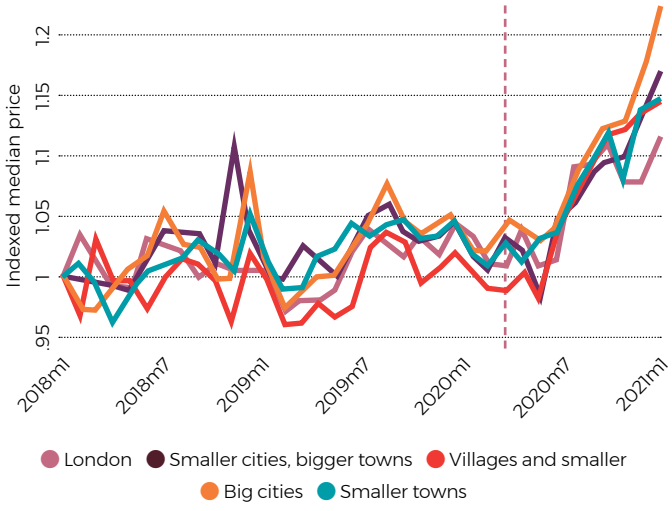
Figure 2 shows the evolution of median prices, with Figure 2(a) showing price levels across the different categories. This conveys something obvious but still very striking: London is very expensive relative to the rest of the country. There is a staggering £300,000 gap between median prices in London and other English cities such as Manchester and Birmingham. This differential is studied more closely below in section 5.4. Figure 2(b) zooms in on the post-pandemic evolution of prices and shows that there has been strong price growth overall, but no distinctive change in the structure of prices across different types of area. In particular, there has been no obvious drop in absolute price levels in London, where a change in location preferences induced by the pandemic is likely to have the strongest effect.

Figure 2a: Median house prices 2018-2021, monthly by area type in England



Note: The graph shows median prices (in thousands) per urban/rural category between January 2018 and December 2020. Transaction data is from the Land Registry. The urban/rural classification departs from the ONS 2011 classification.

Figure 2b: Zooming in on median house price evolution in England. (Median prices indexed to January 2018 levels)



Note: The graph shows median prices per urban/rural category between January 2018 and December 2020, normalised to January 2018 levels. Transaction data is from the Land Registry. The urban/rural classification departs from the ONS 2011 classification.

Housing markets during the pandemic

THE 'BUSINESS AS USUAL' finding for housing markets during the pandemic is consistent with some other recent work:

- Cheshire et al. (2021) provide some case study evidence for London and its surrounds, finding that:
  - London price rises were driven by very expensive detached houses in Central London.
  - They were also driven by detached and semi-detached houses up to 25 miles/40 km from the centre.
  - There have been fewer sales of flats/apartments, with the prices of flats falling.
- Zoopla (2021) use their data to study rents, finding that:
  - There was a 'halo effect' in big cities, with rents falling in the cores of major UK cities, but rising in outer areas.
- This is compatible with increased demand for larger properties with more space, plus a drop in tourist and visitor demand in cities such as London and Edinburgh.
- Judge and Pacitti (2021) have carried out a national analysis, concluding that:
  - Local authorities with the fewest residents per square kilometre saw prices rise by 10% over the past year, compared to 6% in the most populous areas.
  - Cities across the UK have seen slower growth in house prices than rural areas — suggesting a reduced preference for urban living.

Figure 3a: House prices across types of areas, 1995-2020, England and Wales

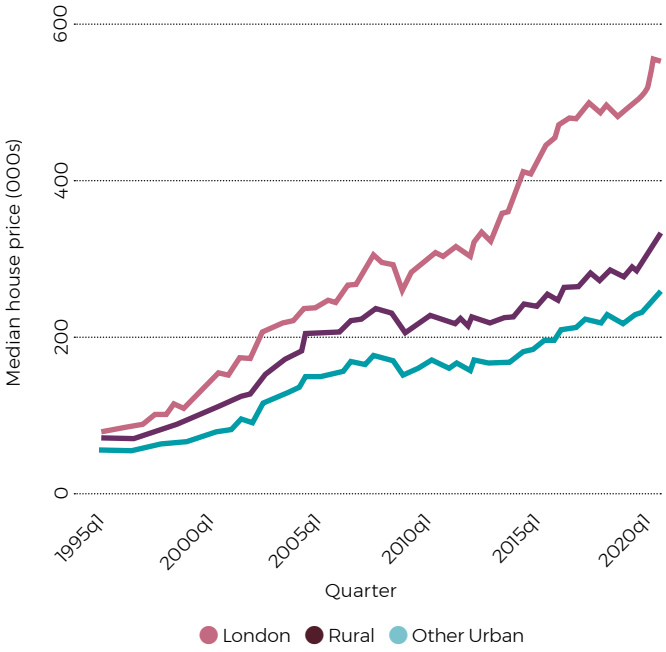


Figure 3b: House price differentials, 1995-2020, England and Wales

Note: This figure shows median house prices across broad areas in England and Wales based on Land Registry transactions data.

How do these movements compare to the recent history of house prices? Figure 3 shows median house prices for the three areas of London, rural and 'other urban'. The level of prices is plotted in Figure 3(a) while the ratio of London prices to rural or other urban prices is shown in Figure 3(b). This makes it clear that London house prices dramatically pulled away from the rest of the country in the 2010s. For example, the London/other urban differential stood at around 1.7 in 2010, but was approximately 2.2 just before the pandemic. The important historical context here is that the pandemic arrived in the wake of extremely strong growth in London's relative house prices.

Why has COVID-19 had such a limited impact on the housing market?

The lack of a transformative impact of COVID-19 on housing markets can be explained in terms of both pandemic support policies and structural factors.

Regarding pandemic support policies, the explicit premise of government policy during the pandemic has been to limit change. Policies such as the Job Retention Scheme ('furlough'), the Self-Employment Income Support Scheme and the Recovery Loan Scheme for businesses were designed to put a floor underneath incomes and prevent a major negative demand shock in the economy. Specific to the housing market, the government introduced a stamp duty exemption policy that has been extended a number of times during the pandemic. It is (at the time of writing) set to be phased out before the end of 2021.

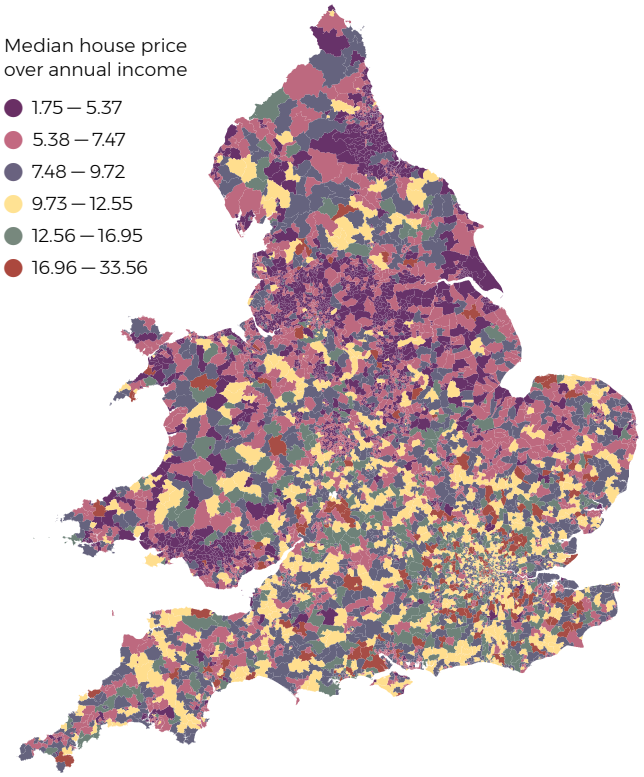
The stamp duty policy is likely to be the key answer to the 'puzzle' of the pandemic's limited impact on sales volumes and prices. Previous research indicates that the effects of the stamp duty changes are large. A study of the 2008–09 stamp duty holiday by Best and Kleven (2018) provides some evidence. This earlier policy eliminated stamp duty for properties worth £125,000–174,999 for 15 months and ended up increasing market activity by 20%. Adjustment to the policy was fast and buyers were sensitive to timing — there was a 150% rise in activity in the last two weeks of the policy.

The phased withdrawal of the current stamp duty relief policy, combined with the heavy government support of incomes, should minimise the potential for a major adverse shock to house prices in the near future. However, at this point structural factors and the 'four economic questions' come into play.

The evidence so far indicates that only a small segment of wealthier households have decided to exercise a choice for more space by moving further out from cities. Figure 1 shows a significant spike in sales in smaller villages in August 2020, but it should be noted that this effect is driven by only 5,720 sales. This is 60% higher than sales in the same areas in January 2018, but is arguably artificially boosted by the postponed transactions that built up during the early months of the pandemic.

This indicates that the amenity and productivity 'pull' factors that underpin the question of 'why wouldn't people move?' are working strongly, as seen in the strong growth of relative London house prices during the 2010s shown in Figure 3. The historical context, described below, suggests that the strength of these pull factors underpins the UK's general housing affordability problem.

Figure 4a: House price affordability in England and Wales in 2020, per ward



Note: The graph shows a map of the affordability index for wards in England and Wales (N=8,063). The affordability index is constructed by normalising median house price data in 2020 over the net annual income. House price data comes from the Land Registry and net annual income comes from the income estimates for small areas from the ONS. The latest publicly available income estimate is used, which dates from 2018.

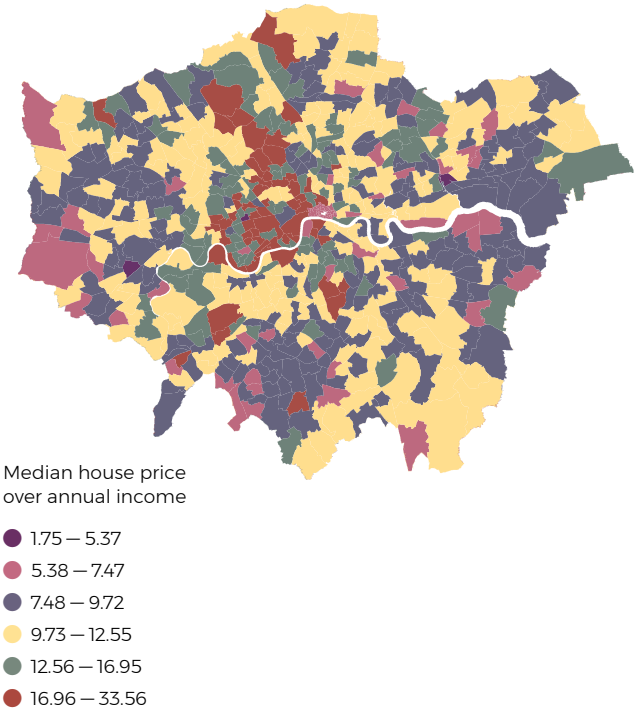
5.4 Housing markets in context: The affordability crisis

Housing affordability

Housing affordability can be defined according to the ratio of median house prices and average annual income. For this report this is mapped out across the 8,063 wards in England and Wales in Figure 4(a), with the shift from dark purple to red tracking lowest-to-highest levels of affordability. While there is a spread of red and green areas across the south of England, it is also striking that there are local affordability crises scattered widely, including in the North West and the West Midlands.

London is dramatically unaffordable. This is obvious to the casual observer, but it is still startling to see the extent of it in the data. As shown in Figure 4(b), most parts of north and west London fall into the two highest bands (with a 12.56 or more ratio of house prices to median income), with some emerging hotspots in east London. Owning housing in zones 1 and 2 means facing a median price to average income ratio of at least 12.56.

Figure 4b: House price affordability in Greater London in 2020, per ward



Note: The graph shows a map of the affordability index for wards in Greater London, excluding the City of London (N=594). The affordability index is constructed by normalising median house price data in 2020 over the net annual income. House price data comes from the Land Registry and net annual income comes from the income estimates for small areas from the ONS. The latest publicly available income estimate is used, which dates from 2018.

International evidence

THE MUTED RESPONSE OF UK house prices to the COVID-19 economic shock is mirrored internationally:

- Yoruk (2020) notes a sharp decrease in US housing market activity during the early months of the pandemic. But, as Zhao (2020) notes, median prices went on to increase, driven by continued sales of more expensive properties.
- Consistent with this, there is evidence that house prices and rents are dropping in US city centres but rising at city edges (Gupta et al 2021; Ramani and Bloom 2021; Liu and Yichen 2021).
- There is little evidence of significant urban exodus — except for New York and San Francisco, the most unaffordable cities in the US where some correction could be expected (Liu and Yichen 2021). Most moves have been much more local than would be compatible with 'urban exodus', as found by Kolko et al. (2021) and Patino et al. (2021) using US Postal Service (USPS) data.
- Work by Huang et al (2020) and Cheung et al (2021) indicates that China went through this cycle (initial drop in transactions followed by slight increase in demand for properties with more space). Median prices also increased across the Eurozone (Nieves 2021). There is a general international pattern of demand-supporting policies such as income subsidies and specific tax relief that appear to have succeeded in preventing major housing market adjustments.

The productivity 'pull' factor of urban areas could mitigate this surge in relative house prices for London and the South East. That is, wages and incomes could be rising to offset higher housing costs. This would be consistent with the increased economic benefits from agglomeration. Following the earlier framework, this implies either that gains from access to London's amenities are extremely large ('why wouldn't people move'), or more plausibly, that London's housing market has other structural problems. There is a lively public debate on the sources of the affordability crisis in London and other cities.

Housing costs and 'levelling down'

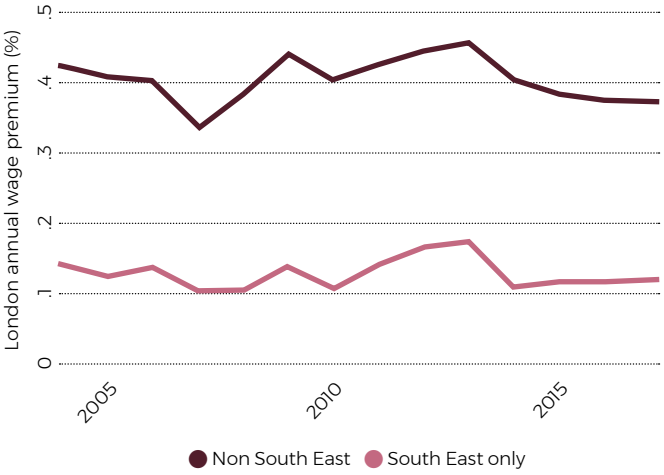
Figures 5(a) and 5(b) summarise the situation of housing costs and levelling down. Figure 5(a) shows the level of average wages across London, the South East and the rest of England, illustrating the clear wage advantage of London and the South East. In 2017 (year of latest data available), average annual wages in London were around £42,000 per year, compared to £37,000 in the South East and £30,000 in the rest of the country.

While these are large gaps at face value, it should be noted that a substantial fraction of this difference is down to composition, with industries and occupations that pay higher than average concentrated in London and the South East. In short, there are more bankers, executives and high-wage professionals living in London, so this pushes the average up. Research using microdata suggests that the impact of this 'sorting' effect is very high — accounting for around 90% of the variation between areas for the decade 1998–2008 — and is also highly persistent, with limited year-to-year changes (Gibbons, Overman and Pelkonen 2014).

Figure 5(b) shows the ratio of South East and rest-of-England wages to London wages, which allows for the evolution of the London wage premium to be tracked. It is clear that this wage premium is not growing but is hovering at around 40% for London versus the rest-of-England and 10-12% for London versus the South East. This runs counter to popular impressions that income and wealth are ever growing in London and the South East relative to the rest of the country. The reasons for this are unclear and need to be assessed using microdata. However, based on earlier work (Gibbons, Overman and Pelkonen 2014) it is most likely that the sorting effect driving area differences is simply a slow-moving phenomenon. Simply put, London is not gaining enough high-skilled professionals in relative terms for its wage premium to be driven up.

Figure 5a: Average annual wage levels by key regions of England, 2004–2017

Figure 5b: London annual wage premium, 2004–2017



Note: This graph shows average annual wage levels calculated from the Annual Survey of Hours and Earnings (ASHE) and obtained from the Nomis labour market data system. Nominal values for annual wages are used.

The term wage 'premium' for describing higher earnings in London and the South East is somewhat deceptive. First, as discussed the premium largely reflects composition; second, there is the issue of how the cost of living — particularly housing costs — offsets higher wages. As seen, housing costs as measured by house prices have been increasing in London during the 2010s relative to the rest of the country. In turn, the fact that (relative) wage growth for London has been flat raises the prospect of housing costs biting into disposable income.

Table 1 shows some estimates of this 'bite' into disposable income based on data from the Office for National Statistics (ONS), 'Income estimates for small areas, England and Wales', which provides data on post-tax incomes and housing costs for around 7,000 areas. Importantly, the housing costs measured here are inclusive of all types of cost: rent, mortgage payments and service costs. It can therefore be explored how the full range of housing costs affect disposable income in a simple regression framework.

Table 1: Income and housing costs differences: London vs. the rest of England and Wales

	Housing costs (log)	Net income before housing costs (log)	Net income after housing costs (log)	Housing costs (share)
London (dummy)	0.661***	0.243***	0.173***	0.059***
	(0.018)	(0.007)	(0.009)	(0.002)
Year 2014 (dummy)	0.023***	0.070***	0.071***	-0.002***
	(0.007)	(0.001)	(0.001)	(0.001)
Year 2016 (dummy)	0.028***	0.088***	0.089***	-0.001***
	(0.006)	(0.001)	(0.001)	(0.001)
Year 2018 (dummy)	-0.002	0.119***	0.127***	-0.009***
	(0.008)	(0.001)	(0.001)	(0.001)
London * 2014	0.047***	-0.055***	-0.071***	0.012***
	(0.015)	(0.002)	(0.002)	(0.002)
London * 2016	0.131***	-0.046***	-0.071***	0.020***
	(0.013)	(0.002)	(0.003)	(0.001)
London * 2018	0.134***	-0.021***	-0.035***	0.014***
	(0.016)	(0.002)	(0.003)	(0.002)
Observations	28,183	28,792	28,792	28,792
R2	0.155	0.162	0.074	0.127

Notes: *** Denotes significance at the 1% level. The data source is 'Income estimates for small areas, England and Wales' (ONS), which is calculated for 7,198 middle layer super output area (MSOA) units. The table shows the results of running ordinary least squares (OLS) regressions of income and housing cost indicators on area and year variables. The dependent variables are housing costs, net income before housing costs, net income after housing costs and the share of housing costs (calculated as the fraction of housing cost over net income before housing costs). **Net income before housing costs** is household income after taking out taxes and adjusting for welfare transfers. It is also equivalised to take into account household size and composition. **Net income after housing costs** then deducts housing costs, defined to encompass rent, water rates, mortgage interest payments, structural insurance premiums, ground rent and service charges. The explanatory variables are a dummy indicating whether an MSOA belongs to Greater London, year dummies, and the interaction of the two. The income indicators come from the 'Income estimates for small areas for England and Wales' (ONS). Standard errors are clustered at an MSOA level and shown in parentheses. The sample includes all years (2012, 2014, 2016 and 2018). The baseline year is 2012.

Source: ONS (2021). Income estimates for small areas, England and Wales (dataset). Office for National Statistics. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/smallareaincomeestimatesformiddlelayersuperoutputareasenglandandwales (accessed 9 August 2021).

Column (1) shows how London's housing costs have evolved since 2012, the first year for which data is available. In 2012, housing costs were 0.66 log points higher in London than in the rest of England and Wales, which translates into a 94% difference in non-logged 'levels'. That is, London housing costs were already nearly double the rest of the country in 2012. Housing costs then grew from 2012 so that for London an extra 0.134 log points were added to the differential by 2018. This means that London's housing costs were around 115–120% higher than the rest of the country in 2018 (compared to 94% in 2012). Most of this growth occurred between 2012 and 2016, with some tapering afterwards.

How does this growth in relative housing costs affect disposable income? The second and third columns of Table 1 model the income differential across areas before and after taking out housing costs. The negative coefficients for the London*year interactions in column 2 indicates that there was actually a dip in London incomes between 2012 and 2018, even before housing costs are taken into account. The effect amounted to about -2.1% by 2018. This is in line with the slight fall in the London wage premium during the 2010s observed in Figure 4(b), although effects stemming from changes in taxes and transfers cannot be ruled out as drivers of this change.

The housing cost effect then comes into play in column 3. This indicates that disposable income for London relative to all other areas fell by -3.5% in total in 2018, which amounts to about 20% of the initial differential. This fall was actually much higher in earlier years (around -7%), before a recovery phase in 2016-18.

Column 4 models housing costs as a share of disposable income, indicating that Londoners devoted an extra 7.2% of their income to housing costs relative to other areas in 2018, compared to an extra 5.9% in 2012.

The combination of flat relative wages and rising housing costs points to a de facto 'levelling down' of disposable income for London and the South East even before the possible effects of COVID-19 can be considered. The notable point here is that the 'pull' factors of London and the South East have been resilient enough to resist any pressures for an exodus based on rising housing costs and falling disposable incomes.

5.5 Conclusion

This chapter has aimed to put the possible effects of the pandemic on the UK's urban and regional structure into historical context. So far, the surprising point has been how minimal the effects have been. This is partly a result of the demand management and tax relief policies explicitly designed to limit change, but structural factors have also played a role.

These structural factors are most evident in London's position relative to the rest of country. There was a massive boom in London house prices relative to the rest of the country during the 2010s, and this bit strongly into disposable incomes. However, it did not trigger a significant exodus from the city, which demonstrates the strong 'pull' factors of agglomeration economies and London's amenities. However, the underlying trends also highlight structural problems in the capital's housing markets and many towns and cities around it. A central theme of current UK policy discussion is the notion of 'levelling up', and a particular theme of the government's political strategy is the position of regional 'Red Wall' voters. However, the central lesson for policymakers from the impact of the pandemic so far is simple: 'levelling up' and related objectives will not succeed unless a realistic view is taken of the role of agglomeration economies. If COVID-19 has not significantly affected the urban and regional structure of the UK, policy interventions face a massive challenge. Levelling up is an important and overdue goal for the UK, but needs a reality check if it is to work out.

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About the authors

Mirko Draca is Professor of Economics at Warwick University and Director of the CAGE Research Centre. His research interests span a range of empirical topics in labour markets, technological change and political economy. He is currently the Principal Investigator on two ESRC-funded projects related to the measurement and analysis of future technologies, and the labour market impacts of the COVID-19 pandemic.

Max Nathan is Associate Professor in Applied Urban Sciences at The Bartlett Centre for Advanced Spatial Analysis, University College London. He is also an affiliate in the Urban Programme at the Centre for Economic Performance. His research focuses on the economics of cultural diversity, in particular the performance of diverse cities, communities and teams; innovation systems and clusters, especially in tech and creative industries; and in public policy for cities, especially policy design and evaluation. He co-founded the Centre for Cities think tank and the What Works Centre for Local Economic Growth. He is affiliated to CAGE, IZA, NIESR and the Centre for London.

Carmen Villa Llera is a PhD Student in the Department of Economics at the University of Warwick.

"In summary, the historical context shows that the 'pull' factors of London and the South East have been resilient enough to resist any rising pressures for an exodus based on rising housing costs and falling disposable incomes."

Conclusion

This report has discussed the impact of the COVID-19 pandemic on major features of the economy. The findings show that in many areas where significant upheaval may have been expected — such as the labour market, the finance sector and housing — the UK has been resilient to large-scale disruption from the coronavirus crisis. Given the relatively nuanced effects found, this suggests that policies to tackle the changes may also need to be nuanced, rather than attempting a major 'new settlement'. At the same time it suggests significant challenges lie in the way of implementing a policy of 'levelling up'.

A 'new settlement' post-COVID may not be the way forward

There seems to be a relentless desire for making transformative changes in the face of big events; however, arguably there is not enough recognition of how current settings and history can hold back these efforts. As Nick Crafts argued in Chapter 1, this even applies to the famous 1945 settlement, which did not necessarily have the impact on inequality and growth that is popularly assumed.

'Levelling up' is likely to fail unless policymakers think carefully about the strength of the UK's urban and regional divide

There are strong signs that many structural features of the UK's society and economy have been robust to the pandemic. Most notably this includes the UK's pronounced urban and regional divide, as demonstrated by economic conditions in the housing market. The source of this robustness lies in agglomeration economies and the significant productivity and amenity value benefits from geographical concentration. If COVID-19 has not been able to dent the strength of these agglomeration economies, then the government interventions proposed as part of the 'levelling up' agenda will also struggle. This is not to ignore the hardships currently being faced by many people, but rather to suggest that tackling those hardships cannot necessarily be covered by a limited policy of levelling up.

Policies such as the relocation of government departments and the construction of new transport infrastructure need to be put in the context of agglomeration economies if they are to be successful. This will involve asking questions that are difficult from a political economy perspective. For example, would it be better to concentrate 'levelling up' initiatives into a more targeted set of areas? And what are realistic targets for the revival of areas that have been in long-term decline? The answers to these questions depend on the answer to a basic economic question that should be at the centre of policy development, namely: what triggers agglomeration economies and have they grown in importance?

Policymakers need to be agile in response to small but significant changes to the labour market

The structure of the labour market has been resilient to the pandemic. Remote work will increase but will still be far from dominant overall. However, the rise of remote work also introduces the potential for increased 'restructuring risk' among office and administrative workers. A key priority for post-pandemic policy is therefore the close monitoring of both mass and more gradual job displacements in the labour market. This applies both to jobs threatened by remote work as well occupations that could be affected by technologies such as artificial intelligence. The history of employment in manufacturing and mining — which have suffered clear episodic declines since the 1980s — cannot be repeated. Declines in areas of the economy such as office support work, driving and call centres can all be anticipated, tracked and planned for.

The long-term negative effects of the pandemic are likely to fall predominantly on the shoulders of the young

Finally, COVID-19 is set to bring in some big, negative changes for wellbeing among young people. The clearest message from this work is that there is a serious prospect of there being a 'lost generation' who have their life chances severely affected by the disruption brought about by the pandemic. Again, this is something that can be tracked and where strong, early interventions can have decisive effects.

"There are strong signs that many structural features of the UK's society and economy have been robust to the pandemic."

CAGE Policy Reports

Becker, S.O., Broadberry, S., Crafts, N., Ghosal, S., Mukand, S. and Troeger, V. (2012). *Reversals of Fortune? A Long-term Perspective on Global Economic Prospects.* London: Social Market Foundation.

Harrison, M. (ed.) (2014). *Unlocking Development*. London: Social Market Foundation.

Brandon, K. (ed.) (2017). *Understanding Happiness.* London: Social Market Foundation.

Troeger, Vera E. and Egerton-Warburton, Diana (eds.) (2019). *Which way now? Economic policy after a decade of upheaval.* London: Social Market Foundation.

About CAGE

CAGE is a research centre based in the Department of Economics at the University of Warwick. We conduct independent policy-driven research informed by history, culture and behaviour. Our aim is to move beyond traditional measures of economic success to consider broader influences on global prosperity: from cultural and behavioural attitudes to voter preferences and political institutions. We analyse historical and contemporary data to draw out lessons for modern policy. CAGE is supported by the Economic and Social Research Council (ESRC).

Who we are

We are a small team of experts seeking to apply economic principles to ask new and innovative questions of data. We want to know how and why economies are successful, and the ways in which history, culture and behaviour shape the global economy (and vice versa).

We produce robust evidence to inform policymakers and journalists and influence both policy and debate. Our core team consists of nine Research Theme Leaders and Deputy Leaders who work across four Research Themes. We also have a number of internal and external associates who contribute to our research.

Publications and events

Our academic working paper series showcases the research of our team and our associates. We also publish a biannual magazine, *Advantage*, which highlights the best of our policy-driven research for an informed non-academic audience. Our policy briefings and themed policy reports seek to draw out policy recommendations and findings to inform current debate.

Our event programme focuses on driving impact from our research and we conduct regular briefings in London and across the UK. We also host a policy conference bringing together academics and policy specialists to discuss contemporary economic and political challenges. We support young talent through our annual summer school.

CAGE research uses economic analysis to address real-world policy issues.

After a decade of austerity following the 2008 financial crisis, the UK was faced with a global health emergency of a severity not seen for generations. As we emerge from the peak of this health crisis, policymakers are left to make sense of the economic challenges the pandemic has left behind.

In this policy report, CAGE economists assess the short- and long-term effects of COVID-19 on the labour market, housing, productivity, finance and wellbeing. They offer insights for policymakers on how the pandemic will (and will not) shape the future economy and consider what lessons we should take from history to navigate a new path in these unprecedented times.

CAGE Research Centre
Department of Economics
University of Warwick
Coventry CV4 7AL
United Kingdom

warwick.ac.uk/cage

@cage_warwick

cage.centre@warwick.ac.uk

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