

Bouncebackability

The UK corporate sector's recovery from Covid-19

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June 2022



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The Economy 2030 Inquiry

The Economy 2030 Inquiry is a collaboration between the Resolution Foundation and the Centre for Economic Performance at the London School of Economics, funded by the Nuffield Foundation. The Inquiry's subject matter is the nature, scale, and context for the economic change facing the UK during the 2020s. Its goal is not just to describe the change that Covid-19, Brexit, the Net Zero transition and technology will bring, but to help the country and its policy makers better understand and navigate it against a backdrop of low productivity and high inequality. To achieve these aims the Inquiry is leading a two-year national conversation on the future of the UK economy, bridging rigorous research, public involvement and concrete proposals. The work of the Inquiry will be brought together in a final report in 2023 that will set out a renewed economic strategy for the UK to enable the country to successfully navigate the decade ahead, with proposals to drive strong, sustainable and equitable growth, and significant improvements to people's living standards and well-being.

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Contents

Acknowledgements	2
Executive Summary	5
Section 1	
Introduction	10
Section 2	
UK corporate sector balance sheets	12
Section 3	
Macroeconomic environment and outlook	19
Section 4	
Firm dynamism	26
Section 5	
Changes in working and spending patterns	34
Section 6	
Conclusion	46

Executive Summary

UK firms have, like every other part of the economy, faced a huge economic hit from the Covid-19 pandemic. At times, as many as four-in-ten firms faced revenue falls of over 20 per cent. So, a key question is: what is the current state of British firms as we emerge from the pandemic? This is important because experience of previous recessions tells us this matters a great deal for nature and strength of the recovery, and ultimately living standards.

Early narratives during the pandemic focussed on the likely long-term scarring from the sharpest recession in at least 100 years and the rise in 'zombie' unproductive firms. Here the worry was that the pandemic's legacy would be one of debt-burdened firms unable to invest, hire or grow. Since then, narratives have shifted: there has been much hope pinned on the rise of working from home and firms' adoption of new technologies – leading to a productivity boom and ramp up in investment. As usual, the real answer lies somewhere between these two extremes.

Past recessions have hit firms hard, but this time is different reflecting the policy response

We expect recessions to be accompanied by a large fall in profits: the average post-war recession had a 3 per cent fall in the corporate profit share – the Covid-19 pandemic had just a 0.8 per cent fall. Recessions also usually come with firms facing rising debt and falling cash reserves. Again, the Covid-19 pandemic has been extraordinary, with non-financial corporations' cash holdings climbing to their highest ever level (28 per cent of GDP up from

20 per cent at the start of 2020). The stock of corporate debt has risen, but at 75 per cent of GDP, it remains 15 percentage points below the financial crisis, when it peaked at 90 per cent.

The exceptional Government policy support for business is the key reason why the experience of pandemic has been so different. Public sector borrowing rose to a post-war high, almost £120 billion above the financial crisis peak (in real terms), to finance the most comprehensive economic support package ever enacted: £70 billion was spent on the Coronavirus Job Retention Scheme (CJRS) alone. These support measures, particularly the CJRS, were thought of as protecting households. And they were certainly successful in protecting incomes and maintaining employment. But the CJRS was also crucial in protecting firms, where around 80 per cent of larger businesses accessed the scheme at some point. During a recession, firms face falling demand, but costs do not fall at the same pace. This is particularly true for labour where, in recession, firms face the choice of continuing to pay workers who have less to do, or pay severance and other costs to reduce payroll numbers. The CJRS effectively nationalised this normal recession cost for businesses, and alongside other measures such as direct grants and tax reductions, has allowed firms to keep workers on but also remain on a reasonable financial footing. There were also clear macroeconomic advantages to this too with the average post-war recession being accompanied by a 'scarring' effect of GDP being 11 per cent lower than the pre-recession trend; the latest OBR forecast was for the scarring after this recession to be just 2 per cent by 2024.

There are some optimistic signs for productivity growth from rising firm creation and, possibly, working from home

Although the pandemic's long-term effect on the economy will only become clear with time, there are some positive signs. Matching the relatively positive story on firm balance sheets, fewer firms failed during the pandemic and, perhaps more importantly, the number of new firms created increased. In the first quarter of 2022, firm creation was 20 per cent above its pre-pandemic level. And this is not just about catching up from a pre-pandemic

slowdown; on the contrary, firm creation has been strong throughout the pandemic in a number of industries, particularly those related to the shift to online retail. During 2020 and 2021 total firm births in 'growth' industries were significantly higher: transport births were up by 59 per cent compared to three years before the pandemic, and up 45 per cent in wholesale and 34 per cent in retail. There are some areas where the increase in firm births does appear to be partly related to 'catch-up' – for example, accommodation and food services experienced a 4 per cent fall in firm creation during 2020 but bounced back to 14 per cent above pre-pandemic trends in 2021, and is up by 5 per cent in Q1 2022. New firms tend to have lower productivity than existing firms but those that survive have higher productivity growth rates and can help reallocate economic inputs across the economy. Both of these effects should support economic growth in the coming years, although the extent of the persistence in new firm creation remains to be seen.

Another key trend is the increase in working from home. This was already increasing pre-pandemic with the proportion of workers 'usually' working from home doubling between 2010 and the eve of the pandemic (5 to 10 per cent). But the pace of the increase exploded during the pandemic and some working from home has become embedded as the new normal for at least a fifth of the workforce. There are some reasons for thinking working from home could boost productivity. Those doing so during the pandemic were slightly more likely to report being more productive at home (29 per cent compared to 22 per cent who thought their productivity fell). And productivity gains are a factor driving adoption of working from home for 47 per cent of large firms. There are several mechanisms through which extra productivity could emerge, for example through the reduction in commuting times allowing longer working hours (i.e. increasing output per worker). The evidence is, however, mixed. And, to the extent there are productivity gains, these should be largely already be reflected in aggregate measures of productivity. Looking further ahead, the longer-term dynamics are unclear: there could be an improvement in job and skill matches as people move jobs over time but set against that is the difficulty in maintaining organisational culture, training and development which could materialise over time.

On balance, caution is needed in making strong assumptions about the longer-term effects of working from home. The benefits are more likely to go to higher-paid workers as those earning over £40,000 are almost five times as likely to be hybrid working as someone earning under £15,000 – 38 per cent and 8 per cent respectively. And some of the other areas we have seen shifts during the pandemic are now reversing. For example, during the pandemic, the share of retail spending online more than doubled from 15 per cent to over 35 per cent. But since then that share has fallen back and is now just 3 percentage points above the pre-pandemic trend.

Despite relatively healthy balance sheets, firms' investment spending remains a concern

The weakness in business investment has been the UK's Achilles heel for many years. Investment flatlined following the 2016 EU referendum and the UK has a far lower capital stock per worker than some of its peers. Investment fell substantially during the pandemic, as is the norm during recessions. But the recovery has subsequently been weak: despite the economy exceeding its pre-pandemic size in 2022, business investment is still over 9 per cent below its peak. This is despite the Chancellor's announced 'super deduction' policy – an aggressive tax reduction for investing firms. All this stands in contrast to the common claim that the pandemic would drive firms to wake up to digitisation and substantially expand investment in the long-term. Indeed, even those firms reporting increasing capital expenditure are around three times as likely to be doing the investment to cover depreciation as increasing efficiency (28 per cent and 9 per cent respectively). And there are some sectors which fair particularly badly – in education, for example, almost twice as many firms are planning to cut capital expenditure in May to July as increase it (13.1 per cent compared to 7.6 per cent).

But this weak recovery seems to be relatively unrelated to direct pandemic aftereffects. Normally recessions hamper firms' ability to fund investments by reducing their own finances or harming access to external funding as banks retrench. But, this time is different: just 4 per cent of firms cited access to external financing as a barrier to more capital expenditure, and only 7 per cent internal funding. What is key is the level of uncertainty: 17 per

cent of firms cite this as a barrier to investment. The pandemic caused unprecedented increases in uncertainty for businesses; that uncertainty is starting to recede with only 4 per cent of firms at the start of 2022 reporting that Covid-19 is the biggest source of uncertainty. However, uncertainty levels remain elevated – only around half of the pandemic rise in a measure of firms' sales uncertainty has unwound. And the cost of living crisis is creating increased uncertainty for prices and increasing the risk of recession, with massive decreases in consumer confidence heralding a difficult time for businesses. This could be another headwind to the recovery in investment.

Changes during the pandemic deserve attention from policy makers, but so does weak business investment

Overall, contrary to many predictions, firms have weathered the shock from the pandemic remarkably well, reflecting the scale and success of the Government's policy response. What should be the focus of policy makers now? Rather than focusing on pandemic changes like the adoption of new technology and working from home, it is the UK's history of weak business investment, which should be of particular concern. Importantly, this weakness in investment is not currently being driven by the typical aftereffects of a recession. Rather it reflects ongoing economic uncertainty, hampered by the cost of living crisis, which continues to be the biggest headwind firms are facing post-pandemic.

Section 1

Introduction

The Covid-19 pandemic was a huge shock to the UK and global economy, with economic activity in 2020 contracting at the fastest pace in at least 100 years. The UK corporate sector was no outlier in feeling the effects of the pandemic, having to cope with vastly changing consumer demand, restrictions on activity, supply constraints and huge uncertainty – to name just a few of the challenges. Although UK firms have generally come through the pandemic remarkably unscathed, looking ahead, the lasting aftereffects of the pandemic on UK firms could be significant. The corporate sector will be key in driving growth and the creation of good jobs in the coming decade. And policy makers need to consider how lingering pandemic-impacts affect the pace of growth and living standards for households. This is key question for the Economic 2030 Inquiry of which this paper is part.

Analysis and commentary on the impact of the pandemic has tended to take extreme positions. On one hand, there is concern about the risk of a new wave of ‘zombie’ firms (unproductive businesses that continue to trade) holding back the economy. On the other hand, some have taken an optimistic view about the possibility that the pandemic could prompt an investment explosion and productivity gains generated by new technologies and ways of working. The truth lies somewhere between these extremes; understanding exactly where is fundamental to the future of the economy and the UK’s economic strategy.

The Covid-19 pandemic was not a single economic shock

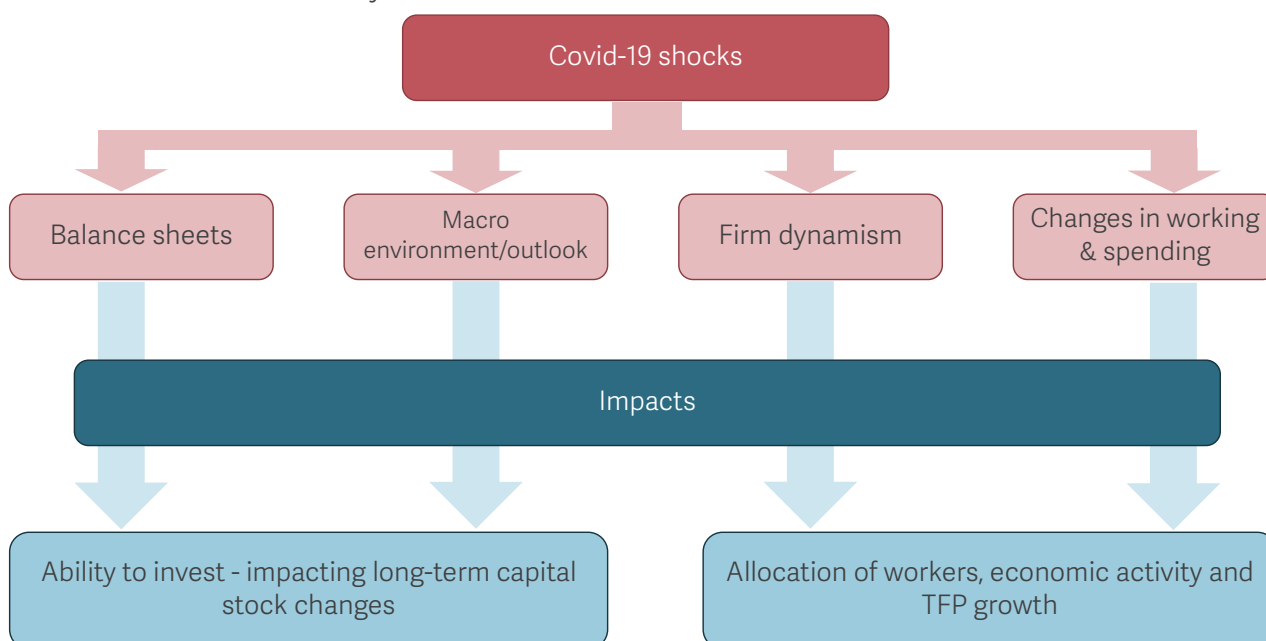
It is tempting to think of the pandemic as a single economic event, but there were multiple separate and overlapping economic changes. Figure 1 provides one stylised way of categorising the different shocks firms experienced – here, into four categories. First, the huge fall in economic activity and aggregate corporate revenues, the range of government support schemes, and the increases in corporate net financing have all had a profound impact on corporate sector balance sheets. Second, since the start of 2022, business investment growth has been weaker than expected, inflation is rising

rapidly and expectations for interest rates are up – in other words the macroeconomic environment appears unfavourable for firms. Third, there is evidence that firm dynamism (both firm creation and destruction and levels of within-firm innovation) has increased. And, finally, there have been preference shifts for workers (i.e. more time working from home) and consumers (i.e. families spending their money on different products and in different ways).

Policy makers should ultimately care about how the corporate sector contributes to long-term prosperity of UK households. Taking the four broad economic shocks together, it is clear that there is the potential for significant lasting impacts. In order to understand how these shocks will have a long-term effect, we can, again stylistically, summarise the impacts the shocks will have. Namely the first two shocks will affect firms' investment plans leading to changes in the capital stock of the UK and ultimately the level of economic output. The third and fourth shocks will have a subtler impact through the growth in total factor productivity – this is a measure of how efficiently firms can utilise resources. For example, if the pandemic leads to an increase in adoption of new technologies that may make firms more efficient. And these shocks will also shift the economic activity in the country across sector and place.

FIGURE 1: **The pandemic has affected firms in a range of ways**

Stylised summary of the ways in which the pandemic will have a lasting impact on firms and the wider economy



The rest of this report is structured as follows: each section considers a single shock from the categorisation above, provides analysis of the size and timing of the effect on firms and discusses the likely long-term impact on the economy. The final section then draws together the conclusions and assesses the long-term impacts in the round.

Section 2

UK corporate sector balance sheets

Business investment is a key driver of long-term economic growth. But in order to invest, firms need to have the financial resources to do so, which will depend on the balance sheet position of each firm, as well as the functioning of the financial sector. The pandemic caused huge falls in revenue – at times as many 40 per cent of UK firms had revenues falling by over 20 per cent relative to normal, suggesting firms' balance sheets should have deteriorated significantly, harming their ability to invest. However, in contrast to expectations, corporate profits stayed relatively healthy: the average post-war recession came with a 3 percentage point fall in the corporate profit share; the Covid-19 pandemic recorded just a 0.8 percentage point fall. And protected profits also meant that, on average, balance sheets are in good shape: non-financial corporations' cash holdings climbed to their highest ever level (28 per cent of GDP up from 20 per cent at the start of 2020). And, although the stock of corporate debt has risen, at 75 per cent of GDP, it remains 15 percentage points below the financial crisis peak.

These more-positive-than-expected developments are due in large part to the scale and efficacy of government support schemes. Public sector net borrowing rose to a post-war high of £320 billion in 2020-21, almost £120 billion above the financial crisis peak (in real terms), to finance the most comprehensive economic support package ever enacted. And much of this was directed at protecting firms, including the £70 billion spent on the Coronavirus Job Retention Scheme alone. Together this means that despite an historic recession, the corporate sector's finances do not appear to be a significant barrier to economic growth in the 2020s.

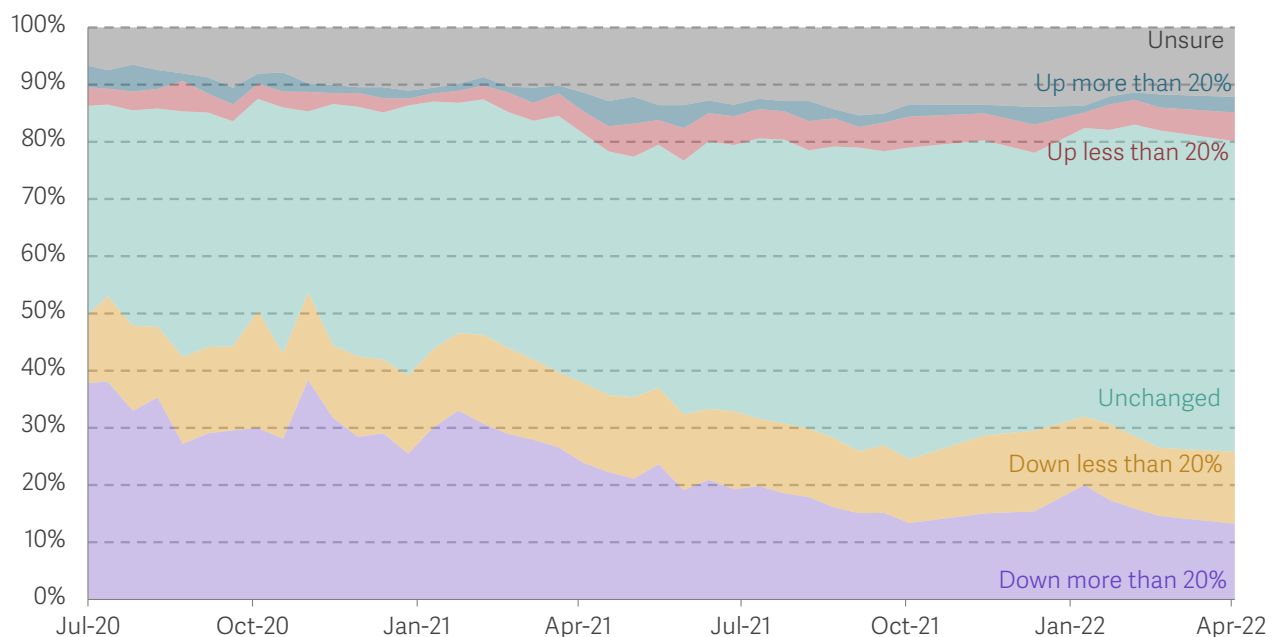
The pandemic created huge economic costs for firms as they were forced to suspend operations

The Covid-19 pandemic caused huge disruption to the global economy and firms were obviously not immune to this. Challenges included widely varying incidence of the

virus around the world, changing social restrictions to control cases, substantially disrupted supply chains, and difficulties in protecting staff and customers, among many others. Figure 2 presents one way of tracking the economic difficulties faced by firms, showing an estimate of the distribution of revenue changes firms experienced over time relative to a non-pandemic world. At times as much as half of UK firms were reporting significantly lower turnover, with up to almost 40 per cent experiencing falls greater than 20 per cent. Equally, this chart shows that while there were some firms that effectively benefited from the pandemic, the size of this cohort has been relatively small throughout the pandemic. Although there remain some firms which have reduced turnover, the most recent data suggest that for the vast majority of UK firms the direct economic effects of the pandemic have receded.

FIGURE 2: During the depths of the pandemic up to half of firms were experiencing significant falls in revenue

Proportion of businesses reporting changes in turnover over the previous month, compare to normal expectations for the time of year: UK



SOURCE: Analysis of ONS, Business Insights and Conditions Survey (BICS).

Government support schemes were able to protect firms' finances

On the face of it, a large fall in business revenue would be associated with a major fall in profits but that is not what happened during the pandemic. Figure 3 shows corporate profits as a share of (lagged) GDP over time.¹ In general, during recessions we see a fall

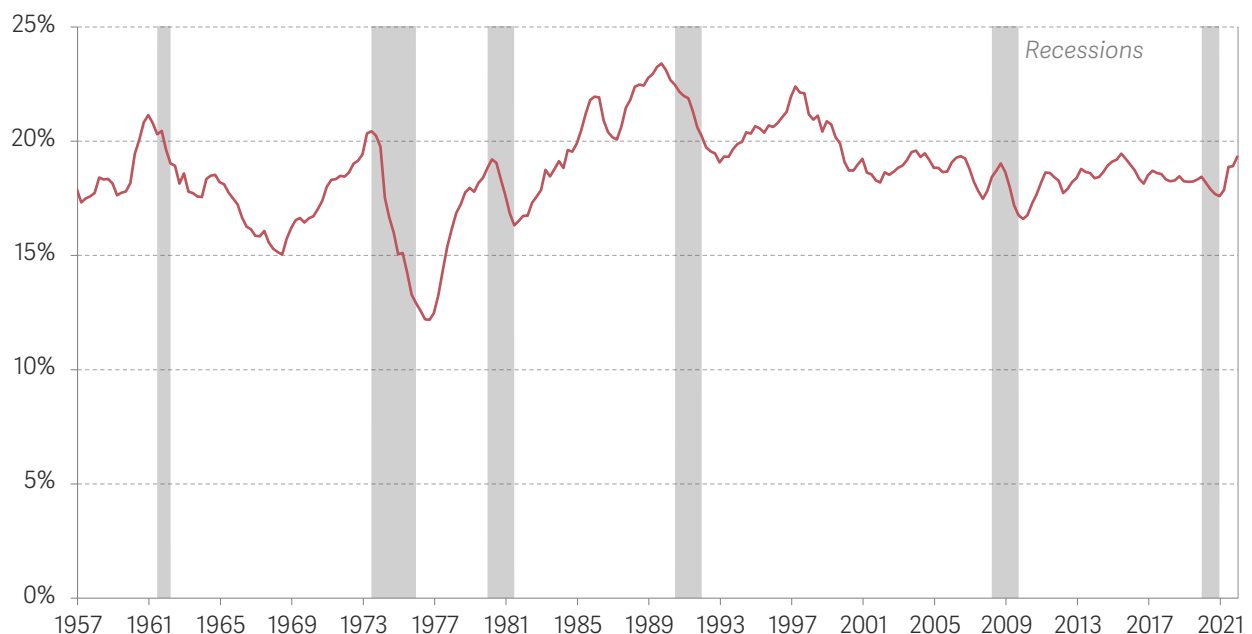
¹ This relatively stable profit share is in contrast with the trend of rising mark-ups since at least the mid-1990s in the UK. For a more detailed discussion of the trends in the UK corporate sector over time see J De Loecker, T Obermeier & J Van Reenen, [Firms and inequalities](#), The IFS Deaton Review, March 2022; and Competition and Markets Authority, [State of UK competition report 2022](#), April 2022.

in corporate profits as aggregate demand in the economy falls but firms face fixed or partially fixed costs so cannot adapt fully. Labour hoarding is a key part of this process whereby it is costly to reduce employment through redundancies and it is costly to rehire workers once demand returns. This means that, if firms expect a recovery in demand, they will be reticent to reduce the workforce, and so wage costs remain high and profits fall.²

Given the scale of the economic contraction, it is remarkable how little corporate profits fell during the first year of the pandemic: the pre-recession peak-to-trough fall in this profit measure during the pandemic was 0.8 percentage points – less than half the equivalent in the financial crisis and even less compared to recessions in earlier decades. A smaller fall in profits implies that firms were more able to protect their balance sheets.

FIGURE 3: Corporate profits fell less during the Covid-19 recession than in any post-war recession

Private non-financial corporations gross operating surplus-to-GDP ratio: UK



NOTES: Ratio of a four-quarter moving average of private non-financial corporations gross operating surplus to a four-quarter moving average of nominal GDP, lagged by one year.

SOURCE: Analysis of ONS, Profitability of UK companies – rates of return and revisions.

The small fall in profits was, in large part, made possible by the scale of government support, particularly the Coronavirus Job Retention Scheme (CJRS).³ Total public sector net borrowing rose to almost £320 billion in 2020-21, almost £120 billion higher in real terms than peak borrowing in the financial crisis, and a post-war high. The CJRS was

² This logic holds for any fixed or partially fixed costs.

³ Business margins (or relatedly mark-ups over marginal cost) are also, at least theoretically, important here too. This is because businesses could have increased their margins to offset declining revenue. However recent work by the Competition and Markets Authority suggest that there was not an increase in mark-ups during the pandemic, although high-quality data covering the whole of the period is not yet available. See CMA, [The State of UK Competition Report April 2022](#), April 2022.

a large part of the response with the latest estimate of the gross cost of the scheme to government finances of just under £70 billion – more than total public sector net borrowing in 2019-20. Figure 4 shows the proportion of businesses reporting utilising various support schemes by late 2020. The CJRS was by far the most-used scheme with 42 per cent of all businesses estimated to have called on it, but this rises to closer to 80 per cent when excluding the smallest firm size. Effectively the CJRS nationalised the cost of labour hoarding that firms would normally face during a recession, protecting businesses’ financial position, supporting household incomes and maintaining job market attachment.

FIGURE 4: Take-up of government support schemes was widespread

Proportion of businesses reporting having applied for government schemes: UK, 19 October to 1 November 2020



SOURCE: Analysis of ONS, BICS.

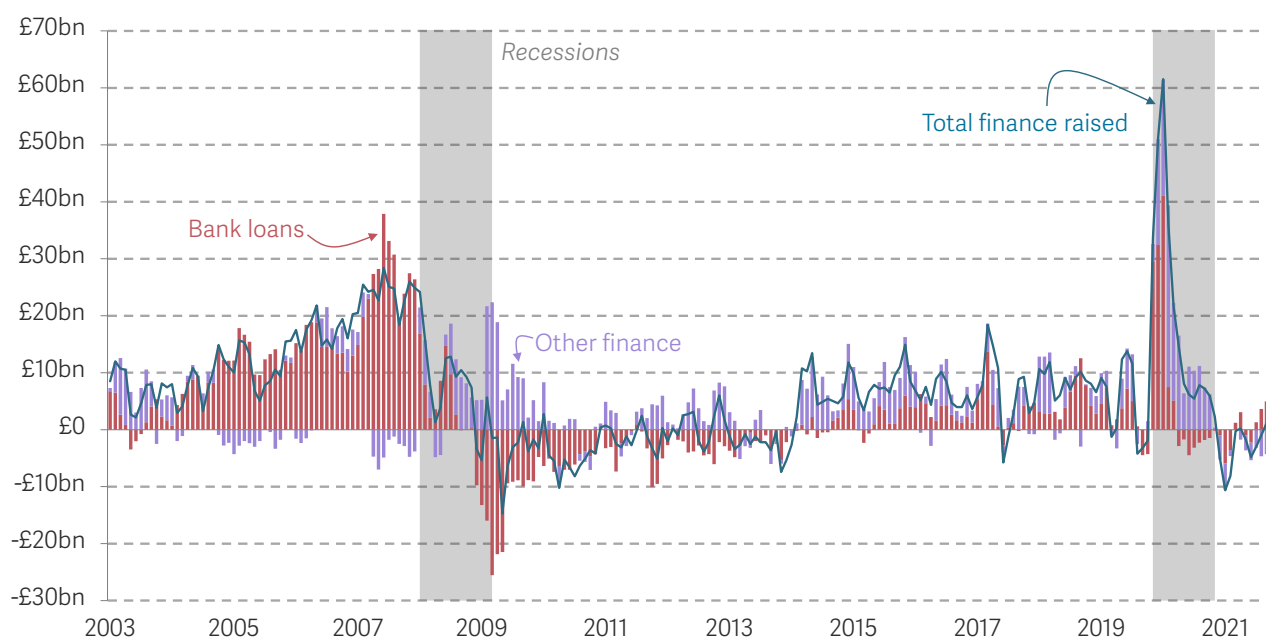
But it is also clear from Figure 4 that a significant minority of firms turned to utilising the Government backed loan schemes. Indeed, over 80 per cent of businesses in the water supply sector are estimated to have raised finance in this way. That raises the question of the extent to which businesses have raised finance – either through Government support schemes – or other means.

Figure 5 shows the huge rise in corporate financing during the pandemic, both through bank loans (largely as a result of various government-backed loan schemes) but also

through other finance raising.⁴ During the first three months of the pandemic the total net increase in bank lending to corporates was £103 billion, equivalent to the net bank lending across all of 2018 and 2019. But it was not just bank lending; net corporate bond issues totalled £81 billion from the start of the pandemic to the end of 2020,⁵ and net equity financing totalled £66 billion over the same period. These numbers are striking and reflect the scale of the economic crisis. But, crucially, they show firms were able to access financing if needed. And from a forward-looking perspective, net bank lending has returned to a level consistent with the pre-pandemic period. This is in contrast to the post-financial crisis period where the hangover from the financial sector collapse was a five-year period of falling net lending.

FIGURE 5: There was significant raising of corporate finance during the pandemic

Net finance raised by private non-financial corporations, by source of finance (three-month rolling sum, £ billions): UK



NOTES: Other finance comprises equity, bonds and commercial paper issuance.

SOURCE: Analysis of Bank of England.

⁴ Government-backed loan schemes included: Coronavirus Business Interruption Loan Scheme (CBILS) which provided funding for smaller businesses facing business disruption through loans, overdrafts and invoice financing of a value up to £5 million; Coronavirus Large Business Interruption Loan Scheme (CLBILS) which was similar to the CBILS scheme but for larger businesses with financing up to £200 million; Bounce Back Loan Scheme (BBL) which provided smaller guaranteed bank loans up to £50,000; and the Recovery Loan Scheme (RLS) which is operating until the end of June 2022 which provides additional financing up to £2 million for businesses which have previously used one of the loan schemes.

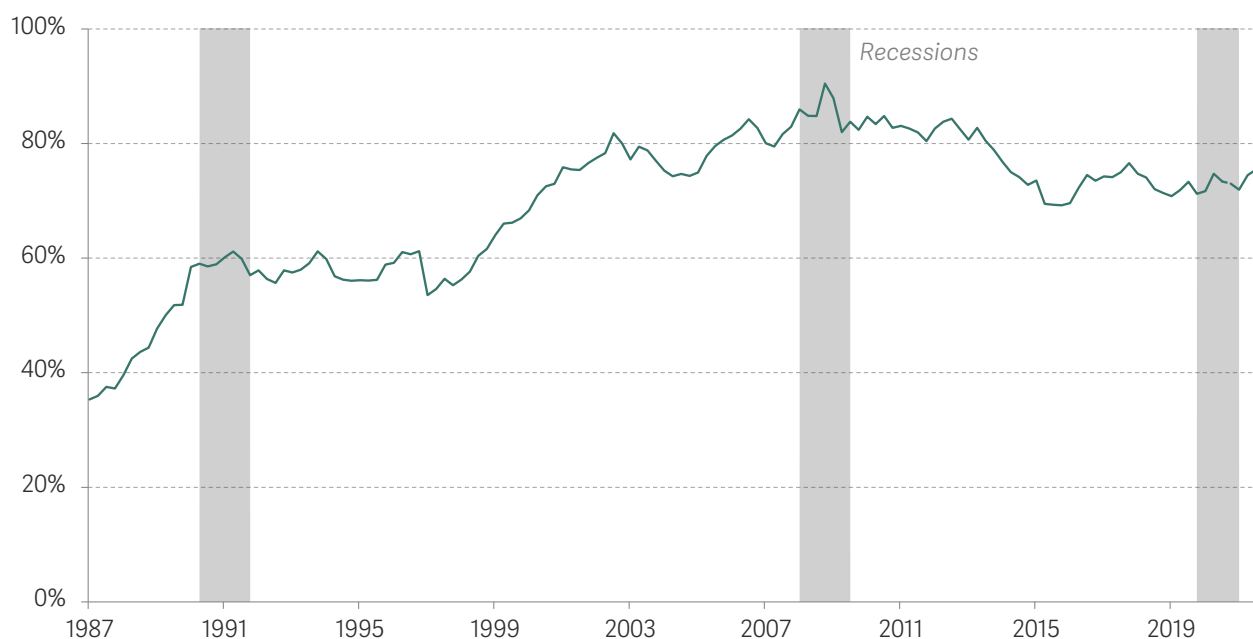
⁵ Including commercial paper.

There is no evidence to suggest the pandemic's impact on the aggregate corporate sector balance sheet will impede future growth

Firms being able to raise finance is clearly a good thing, however if it led to a deterioration in balance sheets, that could present a problem for the ability for firms to fund future investment. But, fortunately, in aggregate at least that does not seem to have occurred. Figure 6 shows the level of corporate debt as a share of GDP. Debt has risen slightly since the start of the pandemic, as shown by the net lending above, but the level remains materially below the levels seen throughout the 2000s. This aggregate picture does not suggest that the legacy impact of the pandemic on firms' liabilities will be a material barrier for future investment.

FIGURE 6: The rise in corporate debt is small relative to previous levels

Private non-financial corporate gross debt as a share of GDP: UK



NOTES: Debt is defined as private non-financial corporations' loans and debt securities, excluding direct investment loans and loans secured on dwellings. GDP is measured as a four-quarter moving average of nominal GDP, lagged by one year.

SOURCE: Analysis of ONS, UK Economic Accounts: institutional sector - non-financial corporations.

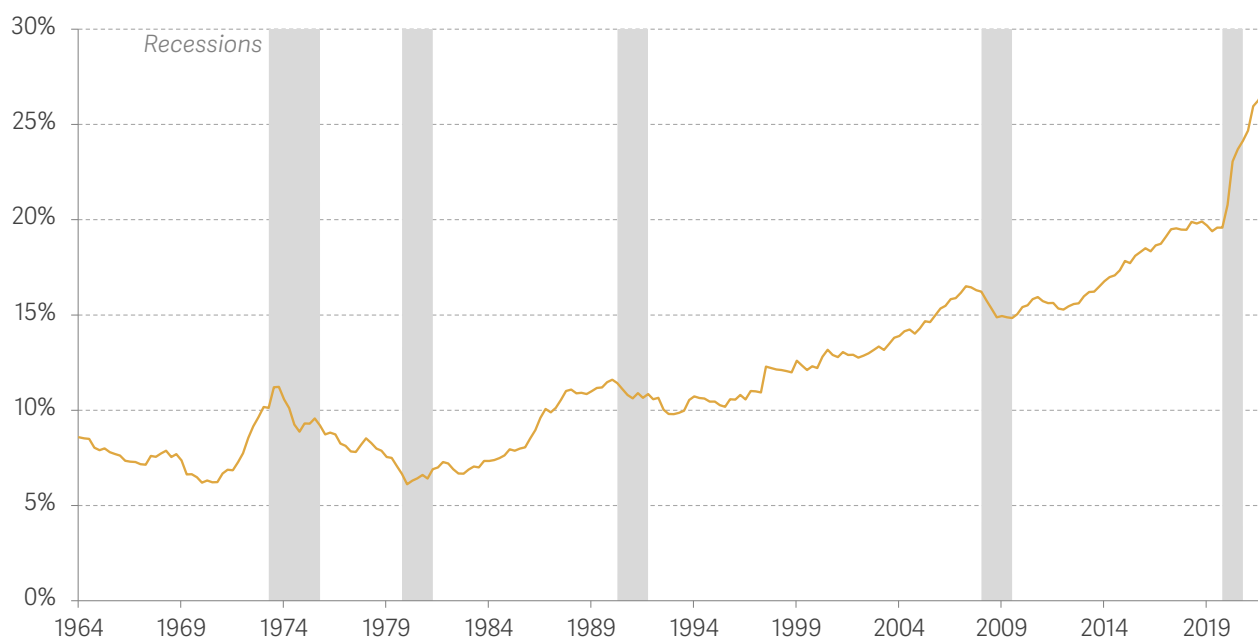
Ability to finance investment is not just about how much debt firms hold but also whether they have access to liquid assets to fund it.⁶ Here the picture is also unusual for a recession. Figure 7 shows how firms' cash holdings have risen substantially since the start of the pandemic – peaking at around £80 billion more than would have been expected given the pre-pandemic trend by the end of 2020. However, since the end

⁶ Of course, debt also matters for this because a higher level of debt, all else equal, increases the risk of lenders losing money on new loans. In other words, lower debt should increase a firm's ability to access lending and thus generate liquid assets to pay for investment.

of 2020 the extra cash reserves have, in relation to a counterfactual based on the pre-pandemic trend, fallen back to around an extra £30 billion. In recent decades, recessions have come with a fall in cash holdings, followed by a slow recovery. The increase in the pandemic is the counterpart to the rise in household savings crisis which have risen by around £180 billion compared to continuation of pre-pandemic growth rates – again unusually for a recession.⁷ The willingness of firms to hold more cash can be ascribed to a number of factors, including increased demand for precautionary liquidity given massive uncertainty, lower interest rates reducing demand for non-cash assets, and the asset-side of the balance sheet impact of firms taking advantage of the relatively cheap government-backed financing.

FIGURE 7: Unusually for a recession, firms' cash holdings have increased markedly

Outstanding sterling M4 liabilities to private non-financial corporations as a share of GDP: UK



NOTES: GDP is measured as a four-quarter moving average of nominal GDP, lagged by one year.

SOURCE: Analysis of Bank of England, Bankstats; ONS, National Accounts.

The key conclusion from this data is that, in aggregate, the impact of the pandemic on firms' financial resources has, in contrast to most expectations, been largely positive. This is all the more remarkable given the size of the recession, one that was without precedent in at least a century. Debt levels have risen but in aggregate these have been matched by rising cash levels as government support schemes largely protected businesses from the economic fallout. This suggests that firms' financial resources – in aggregate at least – are not a larger barrier to investment than was the case prior to the pandemic.⁸

⁷ Source: Bank of England, Bankstats.

⁸ The issue of whether the aggregate data mask difficulties in parts of the distribution is explored in more detail in the next section as the paper looks at firm reported barriers to investment in Figure 11.

Section 3

Macroeconomic environment and outlook

The weakness in business investment has been the UK's Achilles heel for many years. Investment has flatlined since the 2016 EU referendum and the UK has a far lower capital stock per worker than some of its peers. This was the backdrop to the huge fall in business investment during the pandemic which has only partially recovered: investment in Q1 2022 was still 9.1 per cent below pre-pandemic levels while the overall economy was 0.7 per cent above pre-pandemic levels. This weakness comes despite significant government measures to boost investment, particularly the 'super deduction' which provides aggressive tax incentives for firms to increase investment.

But this weak recovery seems to be relatively unrelated to direct pandemic aftereffects: just 4 per cent of firms cited access to external financing as a barrier to more capital expenditure. Instead, lingering uncertainty seems to be more of a material factor with 17 per cent of firms citing it as a barrier to investment. Here there is some positive news as the uncertainty generated by the pandemic has receded with only 4 per cent of firms at the start of 2022 reporting that Covid-19 is the biggest source of uncertainty. However, levels of uncertainty remain elevated and, given the cost of living crisis, looks set to remain a significant headwind.

Business investment has been weak since 2016 but materially worsened during the pandemic and is now only recovering slowly

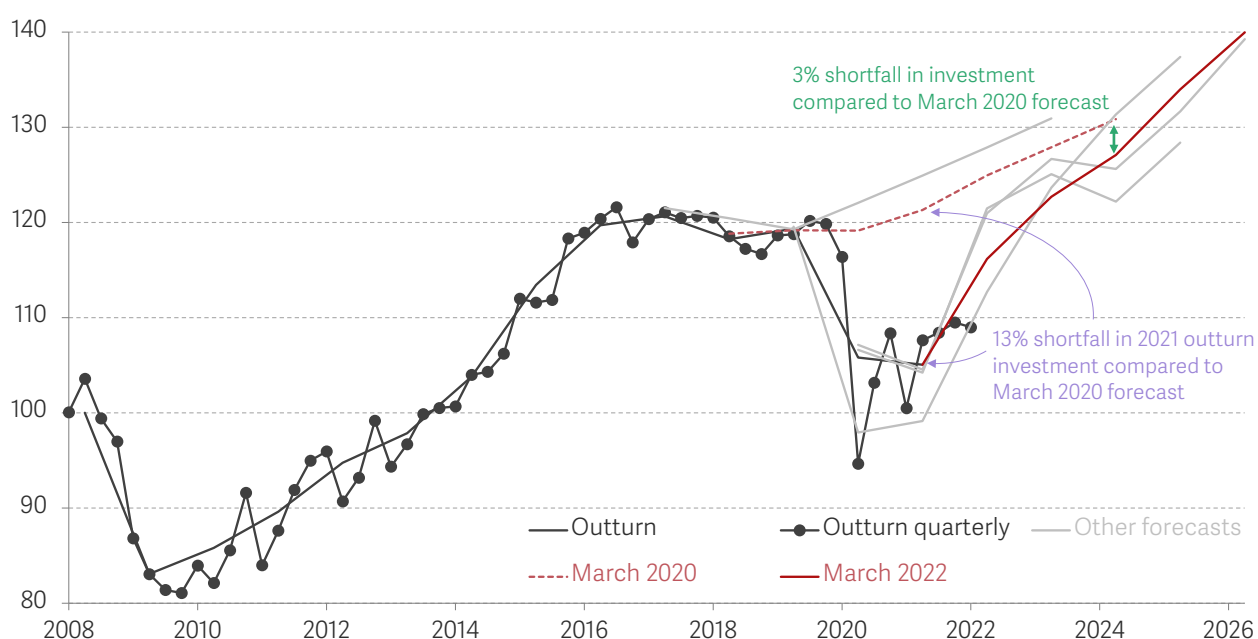
Economic contractions cause lasting macroeconomic damage; this has held true across countries and over time.⁹ Figure 8 shows the evolution of business investment over time and compares the pre-pandemic forecasts to the latest forecast. Clearly the pandemic caused a massive fall in business investment where it fell by 11 per cent between 2019 and 2020. Since then, it has only recovered slightly with investment still 9.1 per cent below its pre-pandemic peak (compared to the whole economy being 0.7 per cent above

⁹ K Handscomb et al., [The Covid state: Analysis of the economy and public finances ahead of the 2020 Spending Review](#), Resolution Foundation, November 2020.

pre-pandemic levels). And, more worryingly, investment fell in the first quarter of 2022 by 0.5 per cent. While investment data are notoriously volatile, the pace of the recovery is in line with that following the financial crisis. However, that recession was accompanied by additional headwinds in the form of significant disruption in the supply of credit to businesses and a highly leveraged corporate sector keen on reducing debt levels. Taken together, this all suggests that the OBR is right to expect that business investment will fail to return to the pre-pandemic trend, with the most recent forecast for a 3 per cent shortfall against that trend in 2024.

FIGURE 8: **Business investment is not recovering strongly from the pandemic**

Index of real business investment, outturn and select forecasts (2008 = 100): UK



SOURCE: Analysis of OBR, Economic and Fiscal Outlook (various).

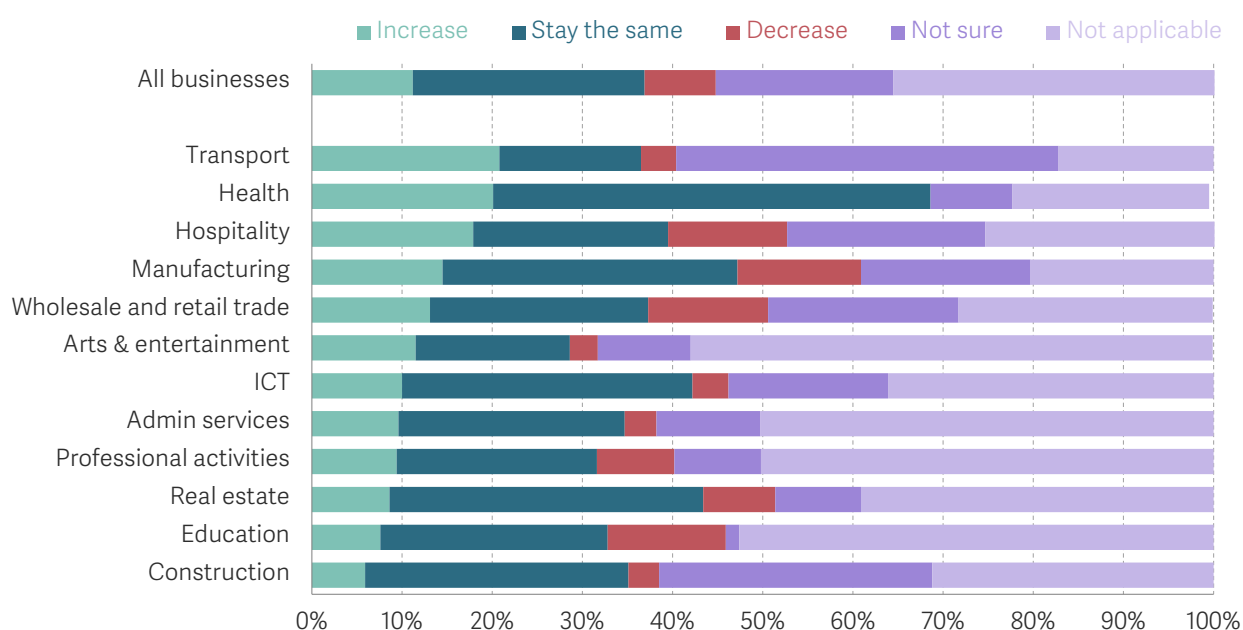
Firm survey evidence helps shed light on the reasons behind the slow investment recovery. Figure 9 provides a recent snapshot of firms' self-reported plans for capital expenditure. This shows that just 11 per cent of businesses are planning to increase such spending between May 2022 and July 2022 – only 3 percentage points higher than the proportion planning to cut expenditure. Other survey measures, for example the Bank of England's Decision Maker Panel, are more optimistic with firms reporting stronger investment growth, however those data so far have not matched outturns for the level of investment.¹⁰ Although some industries have a higher proportion of firms intending to boost investment (21 per cent of transport firms are planning to boost capital expenditure, for example), it is clearly a widespread weakness. And some sectors are particularly weak: in education, for example, almost twice as many firms are planning

¹⁰ The Bank of England's Decision Maker Panel survey found that in Q3 2021 firms were expecting capital expenditure to rise on average by 31 per cent over the next year, in comparison to less than 5 per cent on average pre-pandemic. Although given the actual outturns on business investment so far this year, that seems to be unlikely to be met.

to cut capital expenditure in May to July as increase it (13.1 per cent compared to 7.6 per cent). This is despite the Government's generous policy support for investment through the 'super deduction', where firms can claim tax relief of 130 per cent of the cost of plant and machinery investment up to 2023.¹¹

FIGURE 9: Only a small minority of firms are planning to increase investment

Proportion of business reporting expected changes to capital expenditure over the next three months: UK, 19 April 2022 to 1 May 2022



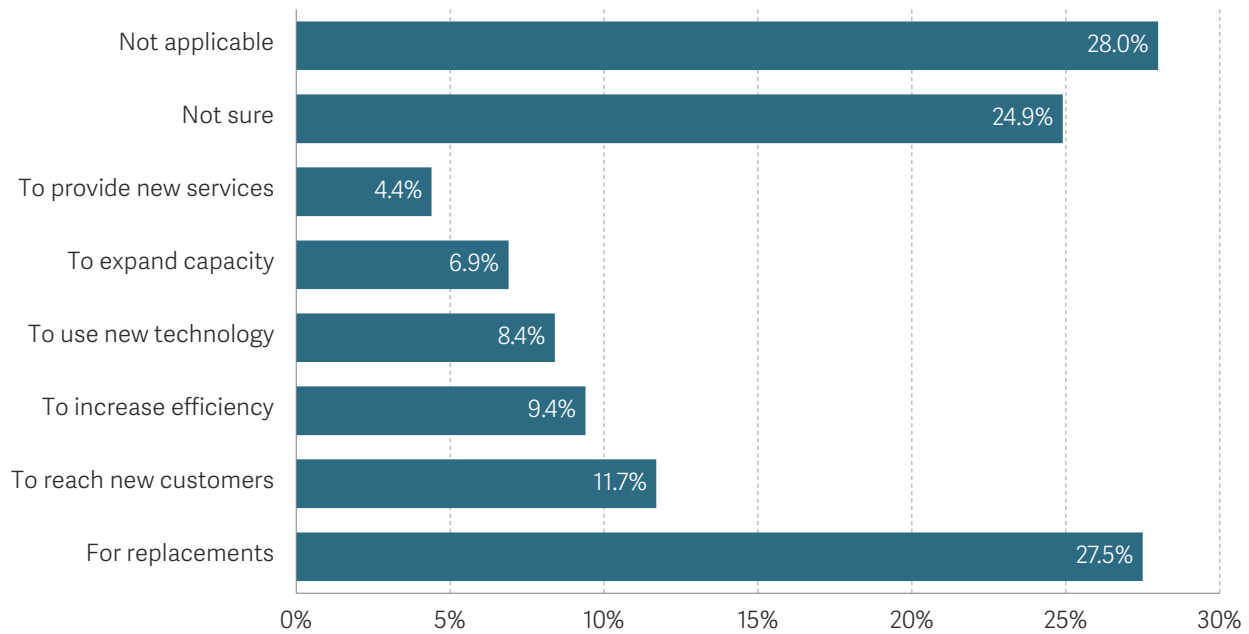
SOURCE: Analysis of ONS, BICS.

Unfortunately, the survey evidence does not allow for a comparison with pre-pandemic norms on the proportion of firms normally expanding investment, however it seems unlikely a widespread recovery in investment could be driven by so few firms. And, perhaps compounding concerns about the investment recovery, Figure 10 shows that capital expenditure undertaken in April 2022 was three times as likely to be related to replacing existing capital stock (i.e. reflecting depreciation) rather than to increase efficiency (i.e. productivity growth).

¹¹ For more on the super deduction see J Smith, [Macroeconomic Policy Outlook Q1 2021](#), Resolution Foundation, April 2021.

FIGURE 10: Businesses are most likely to report that their capital spending covers depreciation rather than expansion or productivity growth

Proportion of businesses reporting purpose of capital expenditure in April 2022: UK



SOURCE: Analysis of ONS, BICS.

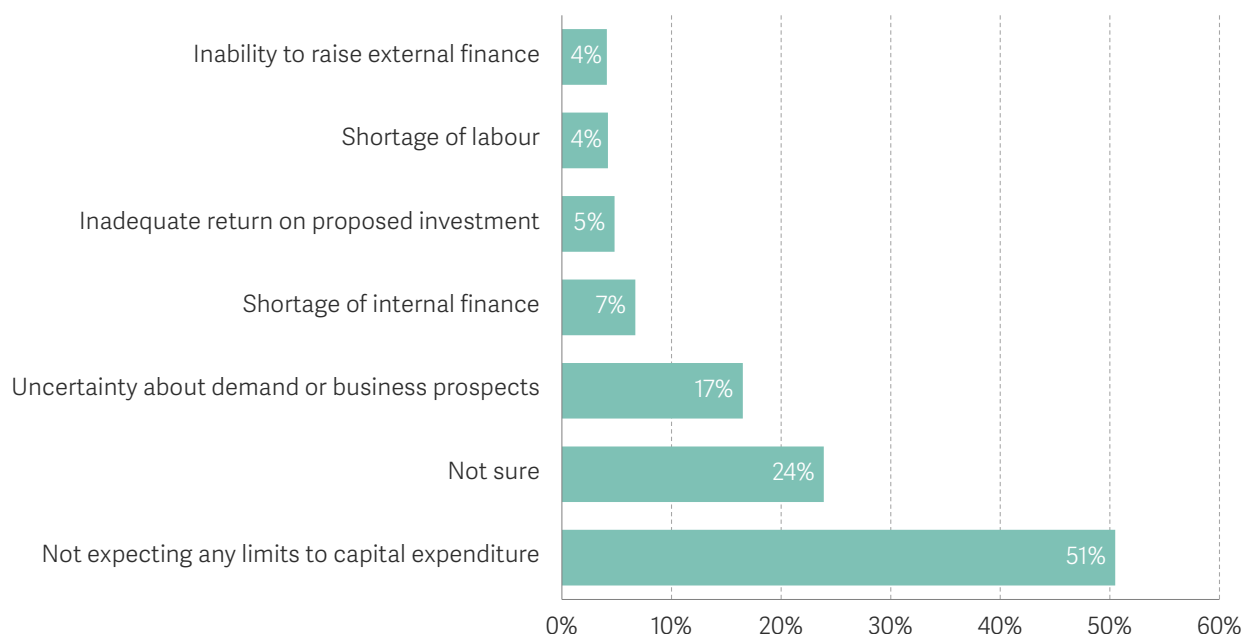
Barriers to an investment recovery seem less related to the pandemic and more related to structural pre-existing weaknesses

The analysis above shows that the macroeconomic recovery in business investment looks set to be slow post-pandemic but it doesn't explain *why* the recovery is slow. There are three broad routes through which the pandemic could be having a direct impact. First, there could have been a barrier to accessing finance for some firms. Second, the net return on investments could have fallen – if the outlook for growth is weak the gross return to new investments is lower or if interest rates have risen the cost of investing reduces the net return. And third, if there is an increase in macroeconomic uncertainty from the pandemic and firms are risk averse, that could prompt some to shelve investment plans. Obviously, the cost of living crisis and the rising risk of an outright recession will be a big factor here. It is worthwhile taking each of these channels in turn.

Figure 11 provides direct survey evidence on why firms are limiting capital expenditure. This shows that relatively few firms face constraints on the ability to raise finance (4 per cent for external finance and 7 per cent for internal financing constraints). This is unsurprising given the analysis in the previous section but it also helps to rule out there being a significant problem within the distribution of firms underlying the aggregate picture.

FIGURE 11: Few firms point to finance constraints or lack of return on investments as barriers to more capital spending

Proportion of businesses reporting the following factors as presenting a limit on capital expenditure in April 2022: UK



SOURCE: Analysis of ONS, BICS.

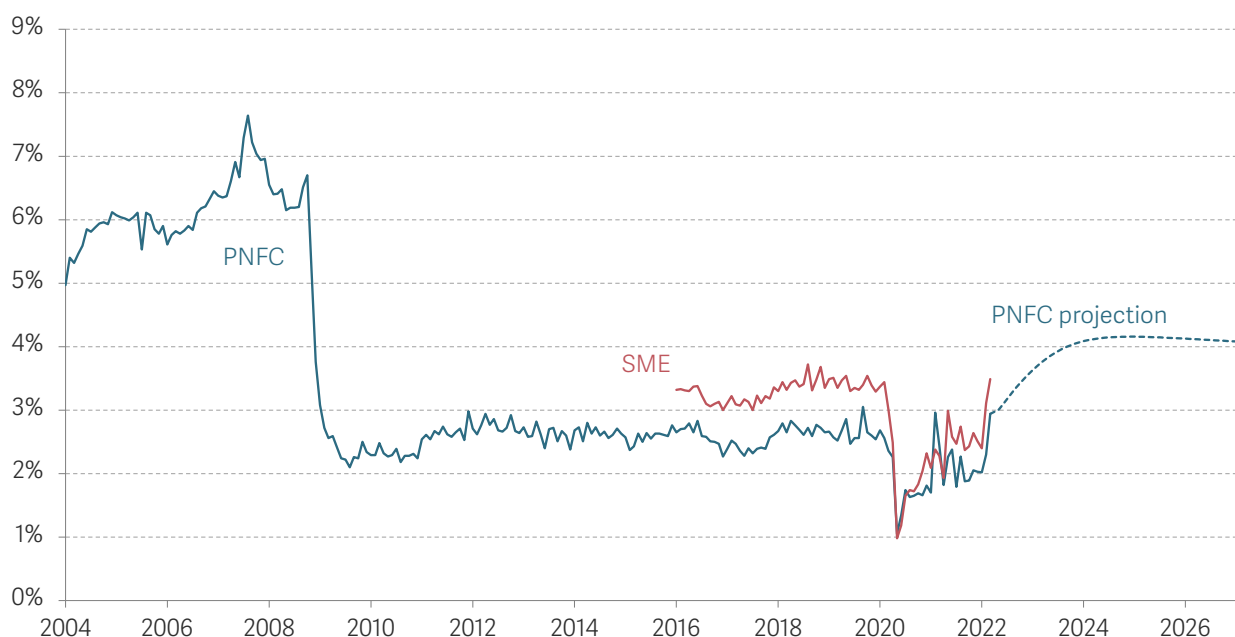
It is equally the case that relatively few firms are citing a lack of return on proposed investments as a barrier (just 5 per cent). This suggests that, for specific investments firms consider, there is sufficient demand in the economy for the investment to be worthwhile. It is also consistent with a low cost of investment. Figure 12 shows one input cost into investment – bank financing interest rates. Interest rates for new loans fell in the pandemic as government support schemes helped reduce risks for the financial sector and central banks cut interest rates around the world. Interest rates have since returned to pre-pandemic levels but, with the return of inflation in the face of post-pandemic supply constraints and the Russian invasion of Ukraine, interest rates are now set to rise. Market expectations suggest average interest rates for new loans to firms are set to rise to around 4 per cent over the next two years – the highest since the financial crisis. This does represent an additional cost for firms. But the relationship between interest rates and aggregate business investment since the financial crisis has been weak, so this may not have a particularly material effect.

Interest rates are, however, only one cost firms face when making investments. The price and availability of capital goods will also be important. The pandemic shifted demand towards goods and away from services (a topic we return to in a later section) leading to supply-chain disruption and rising shipping costs. While this should have reduced the

return on current investment spending it does not appear to be a material enough factor to register considerable concern in the data above.¹²

FIGURE 12: Although interest rates are rising, the costs of new loans to firms is set to remain relatively low

Monthly average of financial institutions' weighted average interest rate on new loans: UK



NOTES: Financial institutions exclude the central bank and include UK resident institutions. Interest rates are for sterling loans. PNFC refers to public non-financial corporations and SME refers to small and medium sized enterprises. Projection is based on the latest OIS spot curve (10 May 2022) and the average corporate loan spread between 2012 and 2022.

SOURCE: Analysis of Bank of England, Bankstats and Yield Curve estimates.

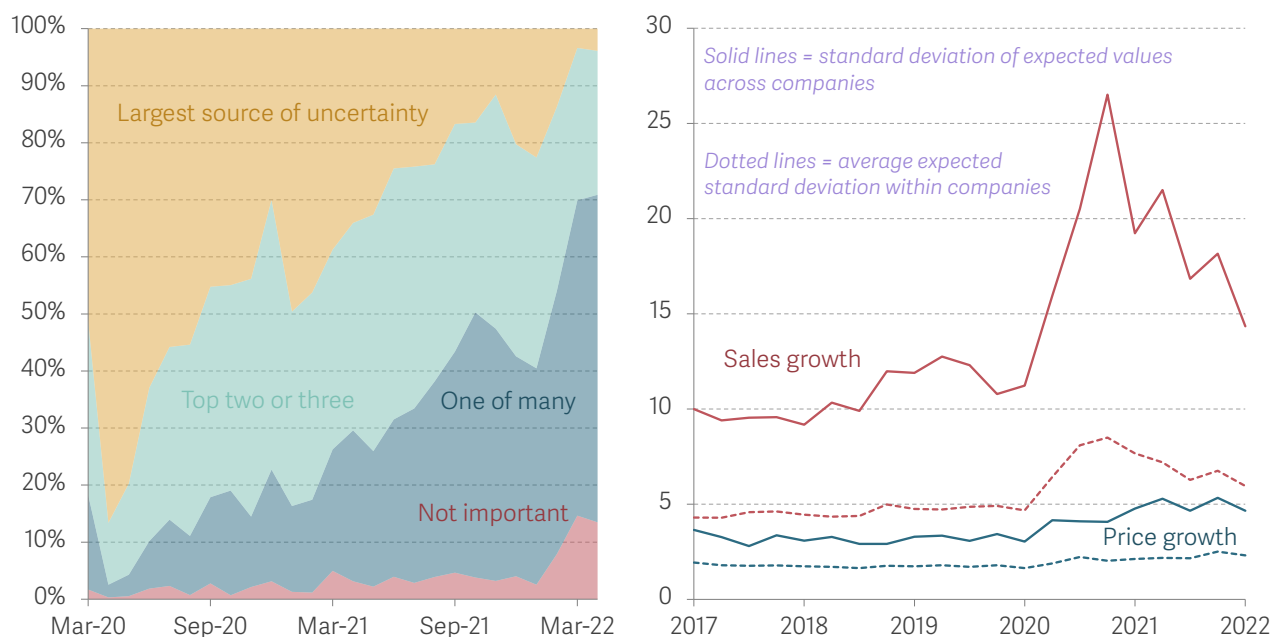
The third hypothesis – uncertainty about the economic outlook being a barrier to investments – appears to be more important. Although still low, 17 per cent of firms are citing uncertainty as a reason for limiting capital expenditure (Figure 12). This is consistent with past experience where business investment flatlined after the EU referendum in 2016. However, it is difficult to see how pandemic-related uncertainty can have a long-term effect on the economy given the introduction of vaccines, increasing community immunity and further developments of therapeutic drugs all limiting the possibility for significant economic impact from future waves of the virus. Indeed, Figure 13 shows that the proportion of firms rating Covid-19 as the biggest source of uncertainty has fallen from 87 per cent to under 4 per cent. This is in line with falls in measures of the aggregate level of sales uncertainty (Figure 13 – right panel) which, while still elevated compared to pre-pandemic, have fallen back significantly. This suggests

¹² The evidence we have is relatively limited on the impact of supply constraints so we have not discussed it in more detail. Nevertheless it could be a material factor holding back the current level of capital expenditure. This should be a temporary factor and have limited effect in the long-term but it could be interacting with the time-limited nature of the 'super-deduction' such that some firms will miss out on the current tax-advantage (although the upcoming increase in the corporate tax rate reduces the difference in the tax benefits for investing now).

that other sources of economic uncertainty are more material than the direct effect of the pandemic – one area is the impact of the cost of living crisis where price growth uncertainty has risen reflecting the rapid rise and volatility of many input costs.

FIGURE 13: Covid-19 has become a less important source of uncertainty for firms

Proportion of business reporting Covid-19 as a source of uncertainty (left hand panel) and measure of sales and price growth uncertainty (right hand panel): UK



NOTES: The uncertainty index measures are based on firms' average expected growth of sales and prices across five scenarios, where the scenarios are weighted according to the probabilities attached to them by respondents. For more detail see source.

SOURCE: Bank of England, Decision Maker Panel.

Lots of work has been done to understand the importance of business investment for the economy and why it has been weak in the UK for a prolonged period.¹³ Failures such as low public sector investment in areas which would 'crowd-in' private sector investment (e.g. on infrastructure), low technological adoption, poor management practises, to name a few, have largely been unaffected by the pandemic. The outlook for business investment growth in the post-pandemic period does not currently look optimistic. But the evidence does not suggest that the pandemic is directly at fault, rather structural factors causing longer-term weaknesses in investment since at least 2016 are still at play and should be the target for policy making in the coming years.

¹³ For example see: S Bond, A Leblebicio lu & F Schiantarelli, Capital accumulation and growth: a new look at the empirical evidence, *Journal of Applied Econometrics*, November 2010; J Oliveira-Cunha et al., *Business time: How ready are UK firms for the decisive decade?*, *The Economy 2030 Inquiry*, November 2021; and CBI, *Government must make big choices or the UK will lag behind*, Speech, September 2021.

Section 4

Firm dynamism

A dynamic corporate sector – one in which resources move to more productive firms and they are able to innovate and improve products and processes – is necessary for a healthy economy. The pandemic has materially reduced the level of firm closures, although this has since rebounded with voluntary liquidations running at their highest level on record. Strikingly, the driver of this does not appear to be a rise in corporate-financial stress. The pandemic led to large increases in the numbers of new firms: in the first quarter of 2022, firm births were 20 per cent above levels prior to the pandemic. And this is not just about catching up from a pre-pandemic slowdown; on the contrary, firm creation has been strong throughout the pandemic in a number of industries, particularly those related to the shift to online retail. Although new firms tend to have lower productivity levels than existing firms, those that survive have higher productivity growth rates and eventually outpace older firms. The creation of new firms also helps reallocate economic inputs to more productive parts of the economy, a process helped by rising firm closures.

There is also strong evidence of increased technological adoption at the outset of the pandemic with some signs that increased product/service innovation may be persisting, with positive benefits for firms. All of these factors together suggest an improvement in firm dynamism but, given the uncertainty in the data, it would be far from a sensible economic strategy to rely on a sufficiently large ‘Schumpeterian’-style wave of creative destruction to fuel growth over the rest of the decade.

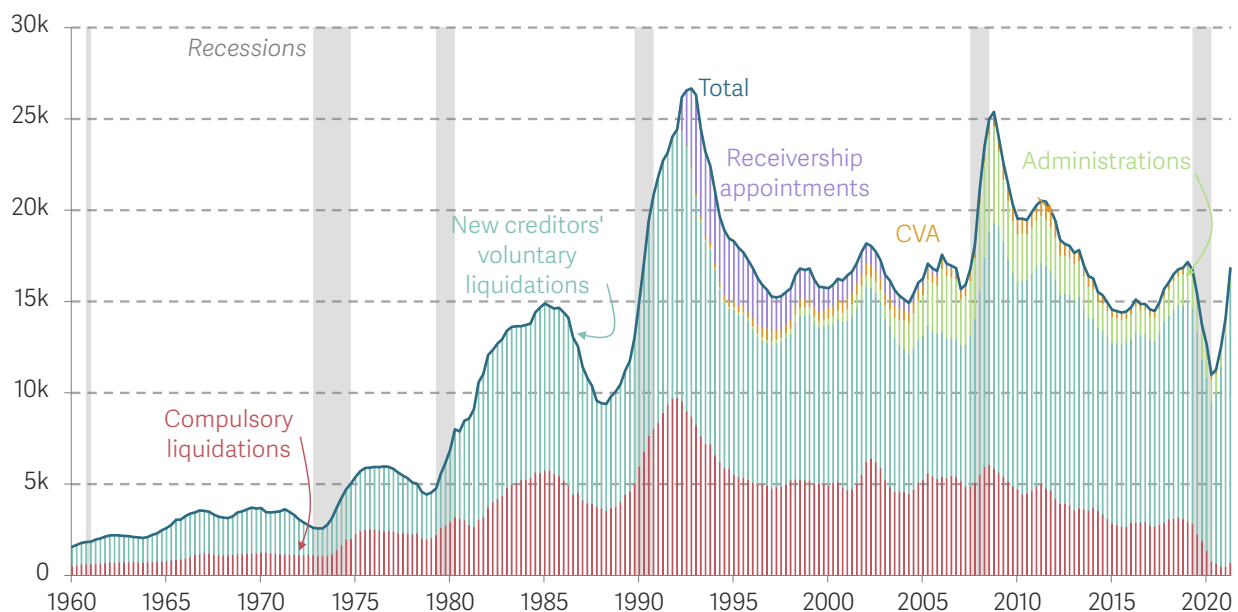
A more dynamic (and faster growing) economy is one in which successful firms are created and grow, while less successful firms shrink and close. In other words, one in which cross-firm dynamism is high. It is also one where firms are more willing to adopt new technologies and innovate on products and services – which can be thought of as within-firm dynamism. The pandemic has had an effect on both cross- and within- firm dynamism. Understanding the extent to which these changes will last is important for productivity prospects.

Cross-firm dynamism fell during the pandemic but has since rebounded and is now higher than pre-pandemic

One aspect of cross-firm dynamism is the rate at which firms shut down. Figure 14 provides the numbers of firm liquidations over time. It shows the clear fall during the pandemic to the lowest level since the late 1980s. This is driven by a number of factors including: easy access to financial support from the Government or Government-backed loans; the raising of thresholds for creditors insisting repayments of debt;¹⁴ and potentially temporarily/artificially high insolvency rates just prior to the pandemic reflecting changes in entrepreneur's relief.¹⁵ More recently the number of firm deaths has recovered quickly, with the most recent data for creditor voluntary liquidations now at its highest level on record. It is unclear what has driven the rise in business closures: is it as a result of catching up with closures that would have happened during the pandemic (total closures are still 18 per cent lower than expected given the pre-pandemic trend) or is it reflective of a longer-term increase in one aspect of firm dynamism?

FIGURE 14: Firm liquidations fell during the pandemic but have now recovered sharply

Rolling four-quarter company liquidations, by type of liquidation: England and Wales



NOTES: Compulsory liquidations includes partnership winding-up orders. Since Q2 2011 winding-up orders have been counted based on the date they were granted by the court. CVA represents company voluntary arrangements.

SOURCE: Analysis of Insolvency Service; Companies House.

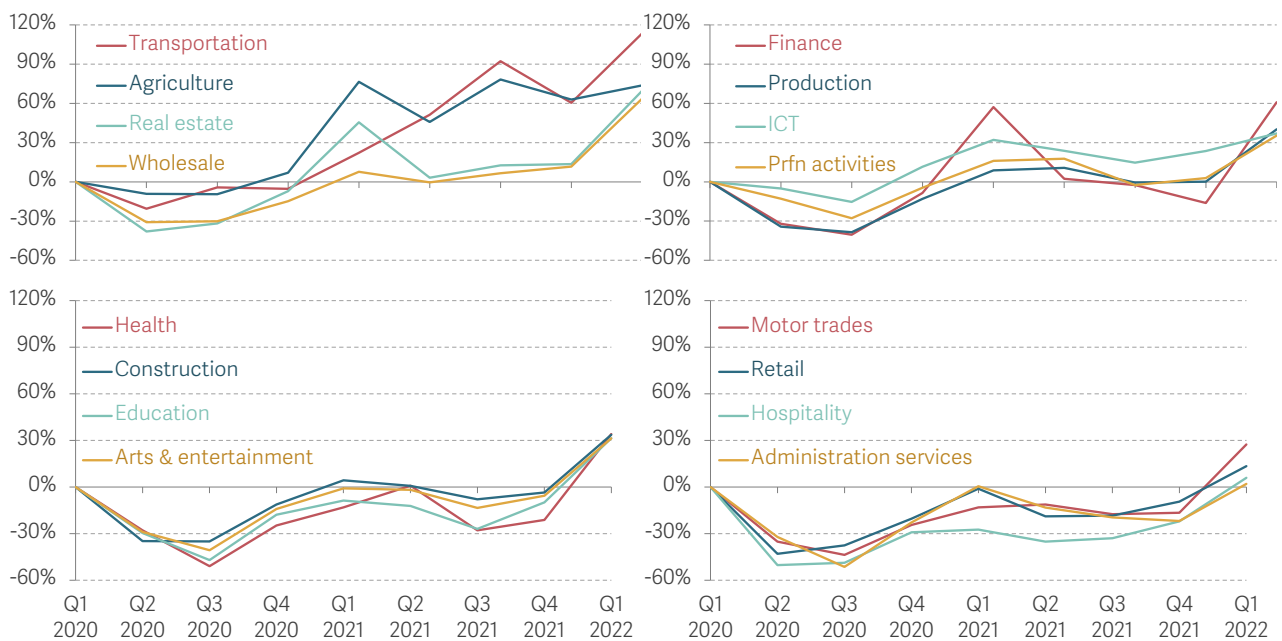
¹⁴ For more, see The Insolvency Service, *End of temporary insolvency measures*, September 2021.

¹⁵ For more, see A Corlett, A Advani & A Summers, *Who gains? The importance of accounting for capital gains*, Resolution Foundation, May 2020.

To answer this question, we can look at the types of firms that have closed. Figure 15 shows, by industry, the change in the number of firms closing each quarter relative to the first quarter of 2021. It is clear that there are big differences in the rate of firm closures across industries. This suggests that this is not just a simple story of catching up from temporarily reduced business closures (in which case you would expect to see industries with relatively fewer closures during the pandemic having relatively more now – where, if anything, the reverse has occurred.). It is also not the case that there has been an increase in the proportion of firms facing immediate financial difficulty (as shown by the broadly stable proportion of firms reporting low levels of cash reserves – Figure 16). Industries in the top left panel of the chart have the highest death rates and these are not obviously driven by losses during the pandemic because the hospitality industry (an industry which faced particularly large falls in demand during the pandemic) has seen the fewest relative firm closures. One other hypothesis might be that this is related to the consequences of the agreement of the Trade and Cooperation Agreement (TCA) with the EU but there is little correlation between industries more exposed to trade with the EU and numbers of firm closures.¹⁶

FIGURE 15: Firm deaths have increased but not evenly across industries

Number of firm deaths on Inter-Departmental Business Register relative to 2020 Q1: UK

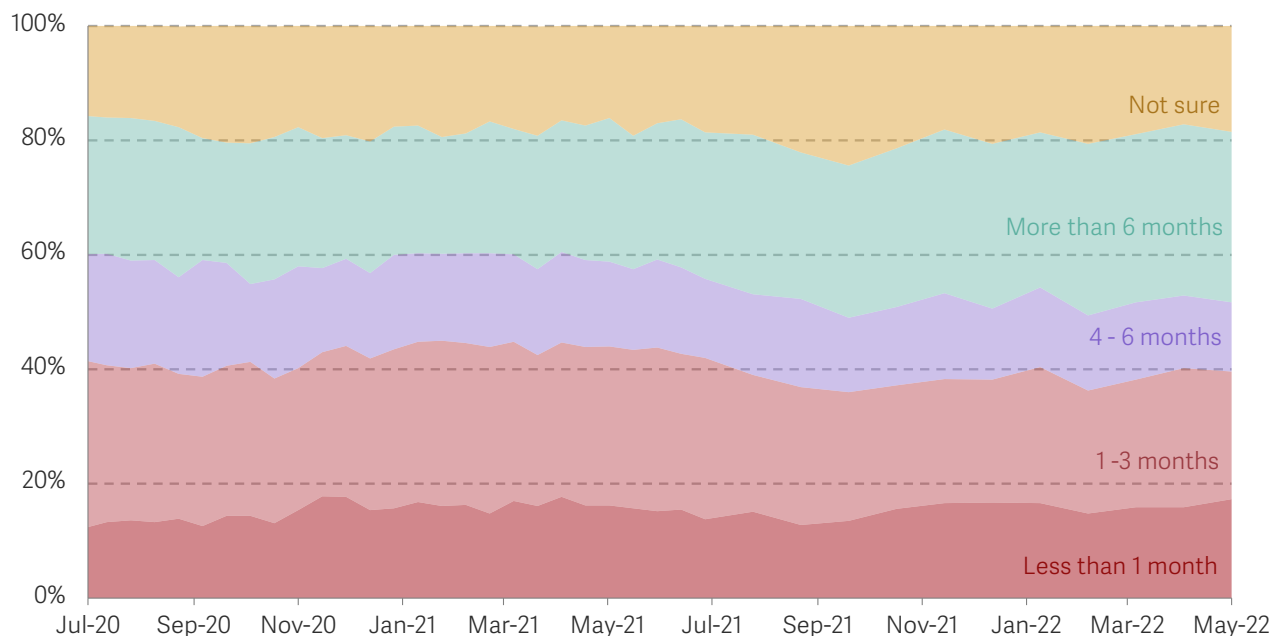


NOTES: Prfn activities refers to professional and technical activities.
SOURCE: Analysis of ONS, Business demography quarterly experimental statistics.

¹⁶ The 2030 Economic Inquiry will address the issue of the impact of the TCA on people, places and firms in a forthcoming report.

FIGURE 16: The proportion of firms with low cash reserves has not risen materially in recent months

Proportion of firms by reported levels of cash reserves remaining: UK



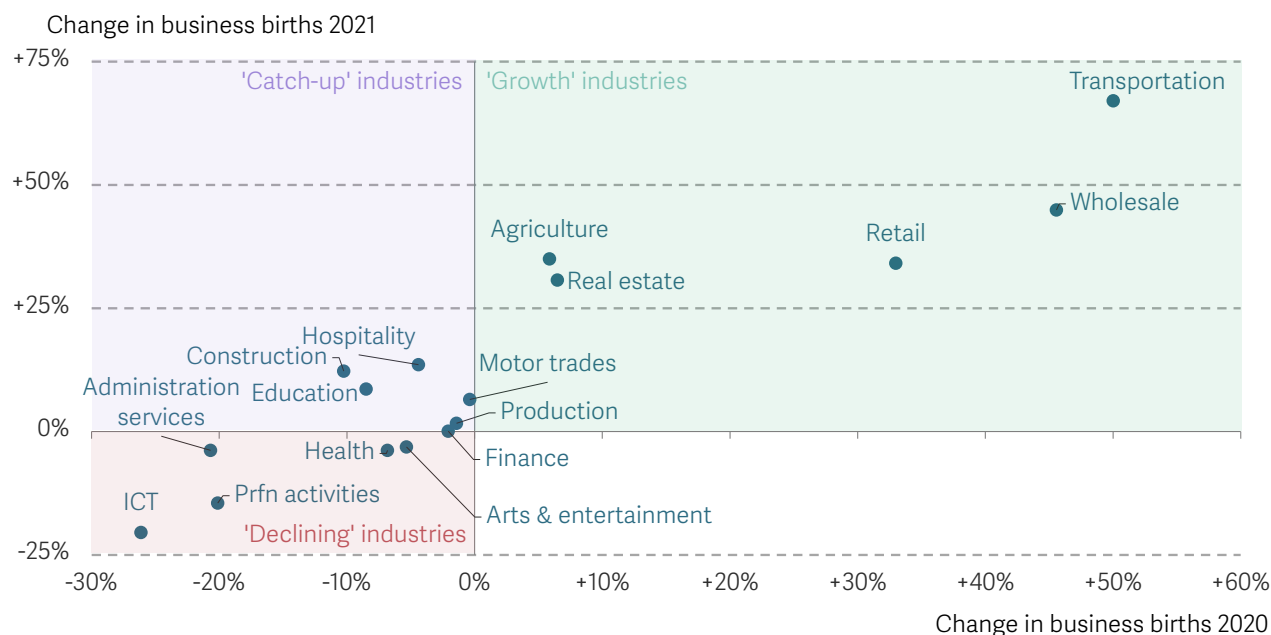
SOURCE: Analysis of ONS, BICS.

It is not just the number of business deaths which have changed during the pandemic but also the number of business births. Figure 17 presents the change in business births in each of the two years of the pandemic relative to the pre-pandemic level. During the first year of the pandemic most industries saw falls in firm creation but in 2021 only two industries had a material decline in firm creation relative to pre-pandemic (professional services activities and information and communication, down by 14 and 20 per cent respectively). Also, there are a number of industries which have experienced significantly faster business creation in both years of the pandemic. Other research has found that these 'growth' industries tend to reflect increasing start ups operating in online retail, which would naturally show up in retail, wholesale and transport – or in other words a specific pandemic-driven effect.¹⁷

¹⁷ See S Bahaj, S Piton & A Savagar, [Business creation during COVID-19](#), Bank of England, Working Paper No. 981, May 2022. The research uses data which provides a wider coverage of UK firms than that in the IDBR used in this paper's analysis which will pick up creation of smaller firms sooner than the IDBR and so the fact that 2021 births have increased should not be interpreted as evidence of a persistent effect of growth industries post-pandemic.

FIGURE 17: Firm births largely held up across the pandemic with some industries seeing striking growth

Change in business births relative to average annual level pre-pandemic: UK



NOTES: Pre-pandemic rate is measured as the average total business births within industries in 2017 to 2019.

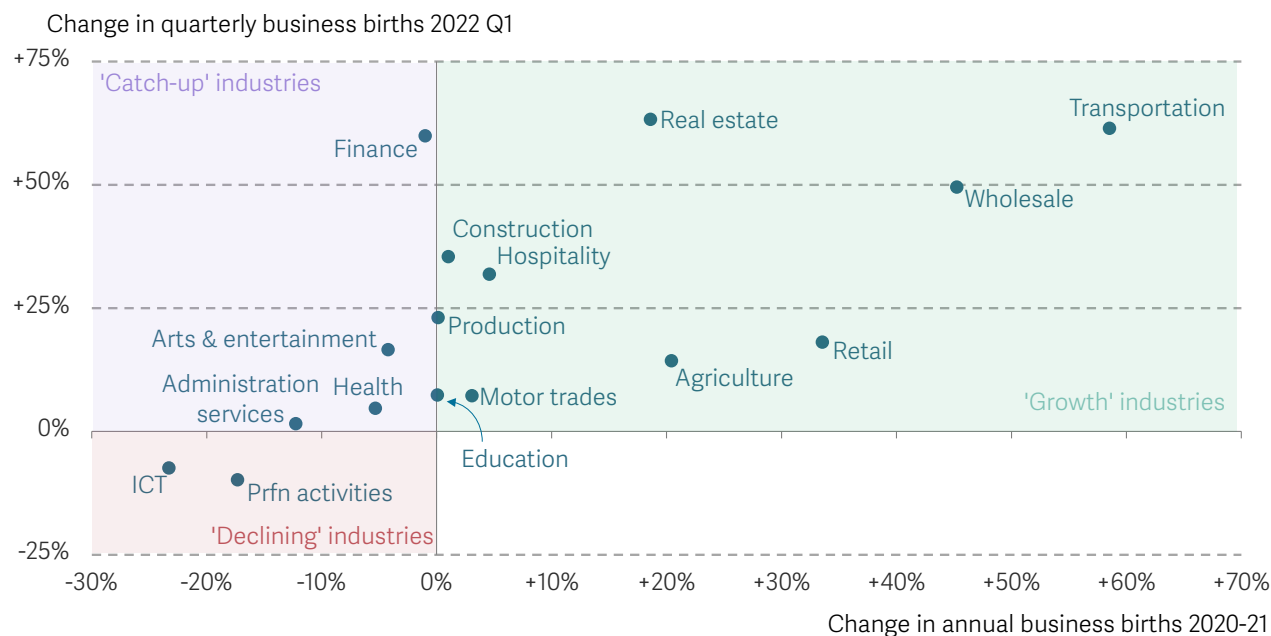
SOURCE: Analysis of ONS, Business demography quarterly experimental statistics.

But if we look at the most recent data, covering the first quarter of 2022, there has been a much broader pick up in the number of firm births, as shown in Figure 18. The specific pandemic-effect of faster growth in online retail has receded, with the number of retail-firm births close to the average. What is most striking is that the average rate of firm births is up 20 per cent relative to pre-pandemic levels of births. This does suggest that, taking all this together, there are hopeful signs that Covid-19 will leave a lasting legacy of increased cross-firm dynamism driven, in part, by the response to structural changes in the economy.¹⁸ However, it is a very early stage to review this data and it remains an open question the extent to which these trends persist.

¹⁸ For a discussion of the impact on productivity growth from start ups in the US context see: T Alon et al., Older and slower: The startup deficit's lasting effects on aggregate productivity growth, *Journal of Monetary Economics*, January 2018.

FIGURE 18: Average level of firm creation in 2022 has remained strong

Change in annual level of business births during pandemic relative to average annual level pre-pandemic and change in level of Q1 business births in 2022 relative to pre-pandemic: UK



NOTES: Pre-pandemic rate is measured as the average total business births within industries in 2017 to 2019.

SOURCE: Analysis of ONS, Business demography quarterly experimental statistics.

There is some evidence within-firm innovation has increased

Clearly improvements in productivity are not just driven by resource reallocation from less to more productive firms but also driven by improvements within firms. This can be hard to measure in real time as firm productivity depends on such a broad range of factors. This will have been more important than usual during the pandemic as it prompted changes to the way firms operate – most obviously through increased working from home – but also firms adapting to changing levels of worker availability. Some of these new ways of working and labour-saving technologies could have long-term effects on the *level* of productivity. But if firms have increased the rate at which they adopt new technologies or practises that could mean the *rate* of productivity growth increases.

Survey evidence supports the hypothesis that firms increased their use and adoption of new technologies. A survey conducted by the CBI and LSE's Centre for Economic Performance found that since March 2020 three quarters of firms adopted new digital technologies and 60 per cent have engaged in product innovation.¹⁹ The big driver of the changes were, unsurprisingly, the move to remote working encouraging the adoption of

¹⁹ See A Valero, C Riom & J Oliveira-Cunha, The business response to Covid-19 one year on: findings from the second wave of the CEP-CBI survey on technology adoption, Centre for Economic Performance, November 2021.

digital technologies for work management, and the move to marketing and selling online. The survey found that the adoption of digital technologies was front-loaded during the pandemic (over 70 per cent of firms adopting in March to June 2020 with only just over 30 per cent more recently) suggesting an immediate pandemic response to needing to work from home which has not persisted. But product and service innovation remained higher with over 60 per cent of firms reporting this innovation since July 2020 – there was also a positive correlation with a self-reported increase in turnover and profit.

A similar, less timely, survey run by BEIS found that there was an increase in firm innovation in the 2018-2020 period (partially covering the pandemic).²⁰ It found that the proportion of businesses introducing new/improved products/services or “significantly improved processes” or organisation was 45 per cent up from 38 per cent in 2016-18 (albeit below rates seen earlier in the decade). The survey found evidence of material increases in spending on innovation activity in 2018-2020 relative to 2016-18. Unfortunately, the timescale of the survey makes conclusions relating to the impact of the pandemic difficult, especially as some of the activity might have been front-loaded as found by the CEP and CBI.

The surveys discussed above stand in contrast to the evidence for changes in innovation for smaller firms. The 2020 Longitudinal Small Business Survey (also run by BEIS and covering businesses with fewer than 250 employees) found that there was a 2 percentage point reduction in smaller firms introducing new products or services in 2020 (13 per cent for goods and 24 per cent for services).²¹ And there was no change in the level of R&D spending in 2020 relative to the previous year.

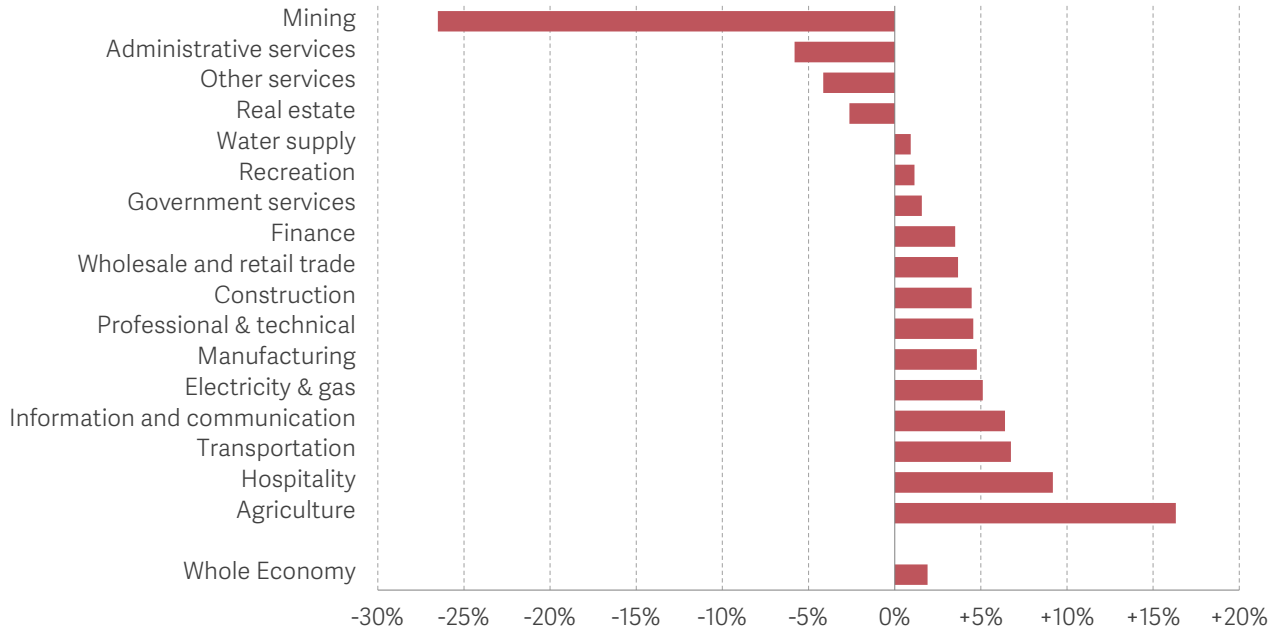
Rising adoption of new technologies, management practises and innovation across products and services should increase the productivity levels for those firms innovating. Figure 19 shows the change in productivity at the industry level from pre-pandemic to the most recent data – and there are indicative signs of a positive impact. Industries most able to take advantage of some of the new ways of working and technology (e.g. professional and technical services, retail and wholesale, and information and communication) have seen above-average increases in productivity. Clearly there are lots of other factors affecting this data, not least that there were significant social interaction restrictions in place early in 2022, but this is at least consistent with the survey evidence discussed above.

²⁰ See Department for Business, Energy and Industrial Strategy, UK Innovation Survey, 13 May 2022.

²¹ See Department for Business, Energy and Industrial Strategy, Longitudinal Small Business Survey: SME Employers (businesses with 1-249 employees) – UK, 2020, August 2021.

FIGURE 19: Some sectors have seen increases in productivity since pre-pandemic

Change in gross value added per hour worked, by industry: UK, 2019 to 2022 Q1



NOTES: The change in productivity is measured as the real change in gross value added per hour worked in 2022 Q1 relative to the average level in 2019.

SOURCE: Analysis of ONS, Flash productivity by section.

Drawing strong conclusions from this evidence is difficult at this stage. Although there are some grounds for optimism about within-firm innovation and dynamism because of the increased technological adoption and product/service innovation, we are yet to see conclusive evidence to suggest that this will have a long-term effect on growth. To the extent that adoption of technologies facilitating working from home has been a major driver of the uptick in innovation, that largely represents a levels-shift improvement in productivity, rather than something which will have continuing long-term dividends to the economy.

Section 5

Changes in working and spending patterns

One of the most striking lasting changes from the pandemic has been the increasing adoption of working from home. Working from home was already rising pre-pandemic with the proportion of workers 'usually' working from home doubling between 2010 and the eve of the pandemic (5 to 10 per cent). But the pandemic turbo-charged this trend with at least a fifth of the workforce now usually working from home with additional workers doing so partially. This remains an activity for a minority of workers (and relatively higher paid workers at that).

Advocates of working from home point towards the possibility for increases in per worker productivity through a number of channels, including: partially substituting commuting time for working time – raising output per job; a better work environment; and better matching of workers and firms given the reduction in the relevance of geographic boundaries. The evidence so far on this leans towards some positive effects, but some of these benefits should already be reflected in aggregate economic output because much of the shift to home working has already occurred. There are also clearly benefits to workers as 53 per cent of them report wanting to work from home at least some of the time. This highlights that even if working from home has a relatively small economic impact, there are still important implications for policy makers which need to be considered, including worker well-being, health and safety of work places and ensuring work-life balance is maintained.

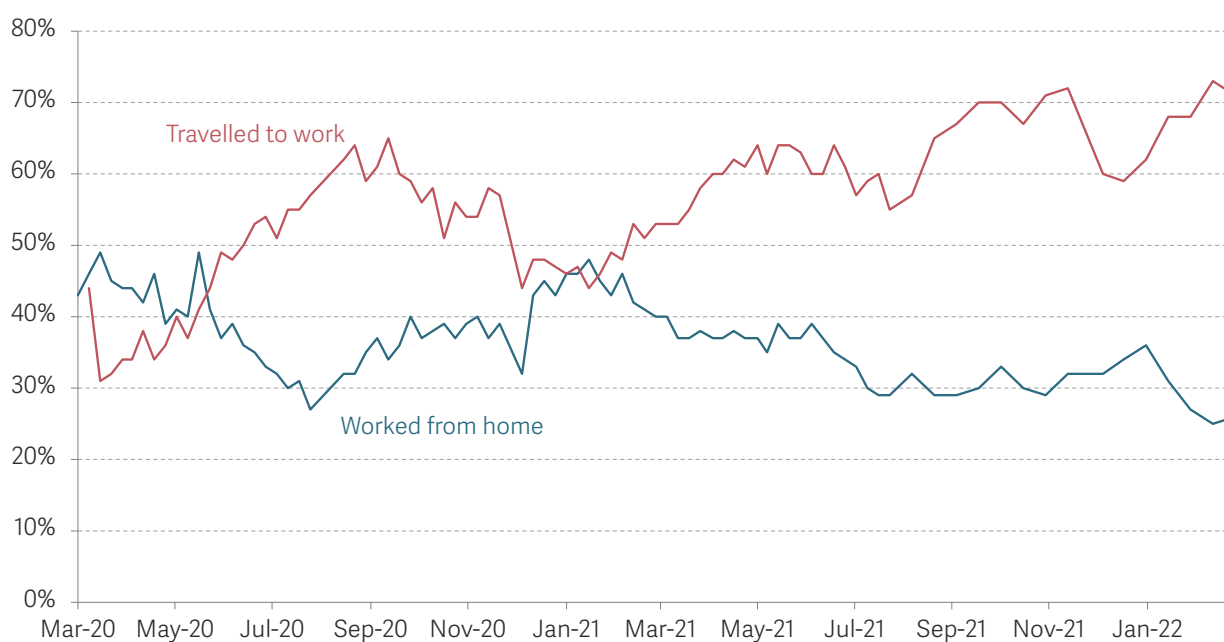
Working from home is not the only change in preferences – consumers have also shifted towards buying goods and away from services during the pandemic. That, combined with fewer social interactions, has driven a fast rise in internet sales. However, unlike the rise of working from home, it is much more uncertain that these effects will last. For example, the share of retail sales made online exceeded 35 per cent at some points during the pandemic but it has since fallen back to only 3 per cent above the pre-pandemic trend. Ultimately preference shifts may have a limited long-term impact.

The 'new normal' is for working from home to be up by as much as four times compared to pre-pandemic

Practically the first large-scale measure to combat the pandemic enacted by countries around the world was to ask workers to work from home if possible. During the height of the pandemic as many as half of UK workers were working from home (Figure 20). The level of working from home has varied over time and has fallen back since restrictions were lifted but a quarter of workers were working from home at least one day a week in April 2022. Another notable trend has been the rise in 'hybrid' working where time is split between the home and the workplace – shown in the rising sum of the blue and red lines below.²²

FIGURE 20: As many as half of workers worked from home during the pandemic

Proportion of workers working from home and/or traveling to work in the preceding week: GB



NOTES: Data are not seasonally adjusted and survey sample sizes are relatively small so individual data points should not be overinterpreted. Compositional changes may overstate the proportion of workers working from home as people working in social-facing jobs were more likely to be out of work during the pandemic and as a group less able to work from home.

SOURCE: ONS, Opinions and Lifestyle Survey.

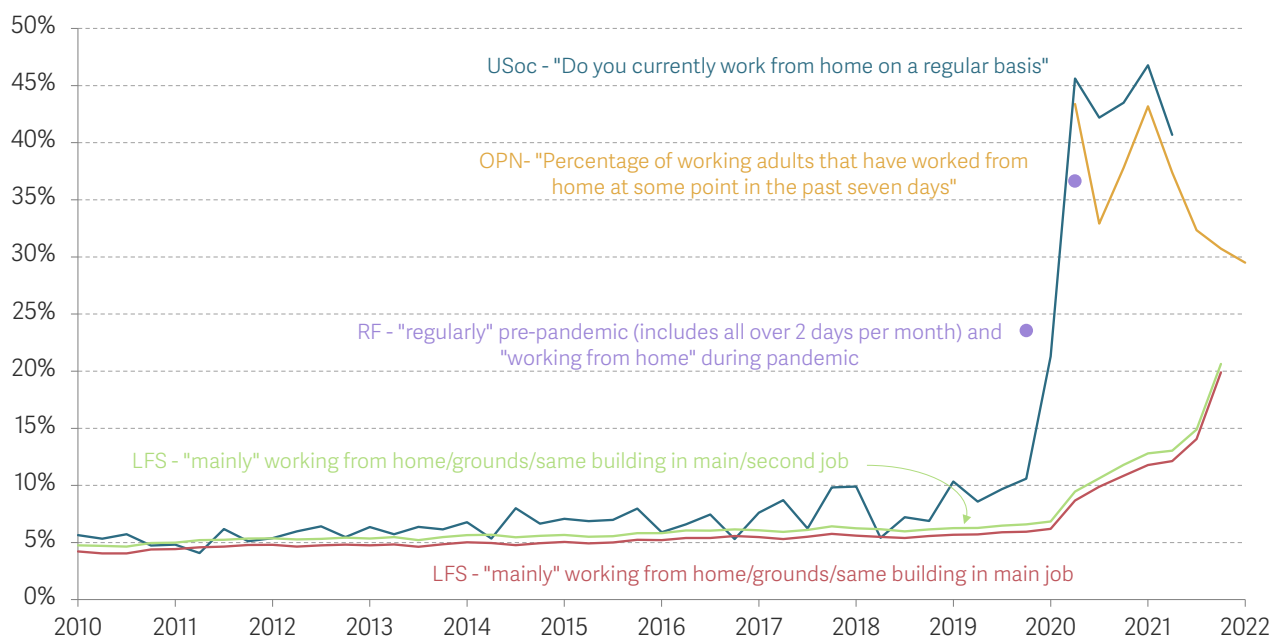
The current, post-restrictions, level of working from home has increased substantially compared to pre-crisis. There is no perfect way to measure working from home because both the extensive margin (i.e. the number of people working from home) and the intensive margin (i.e. the amount of time someone working from home has worked from home) have changed over time. In addition, survey evidence can be hard to interpret

²² For more on the current prevalence of hybrid working see: ONS, [Is hybrid working here to stay?](#), May 2022.

because survey respondents may not interpret questions in a consistent manner.²³ For example, Figure 21, provides a range of estimates of the prevalence of working from home over time. For example, the Labour Force Survey (LFS) estimate is based on the proportion of workers saying that they 'mainly' worked from home, which is clearly open to interpretation. Despite these challenges we can be confident that pre-pandemic there was a gradual trend towards more home-working – the proportion of people working from home on a regular basis rose from around 5 per cent at the start of the 2010s up to around 10 per cent on the eve of the pandemic. Since then, measures have obviously increased substantially, with the latest LFS measure (covering Q4 2021) showing a close to four-fold increase in people mainly working from home compared to 2019.

FIGURE 21: Working from home has increased substantially compared to pre-pandemic

Survey measures of prevalence of working from home: UK/GB



NOTES: OPN covers Great Britain, all other series are for the UK.

SOURCE: Analysis of ONS, Labour Force Survey (LFS); ONS, Opinions and Lifestyle Survey (OPN); USoc; YouGov, adults age 18+ and the Coronavirus (COVID-19), June 2021 wave (RF).

Only a minority of firms have adopted working from home as a permanent part of their business model

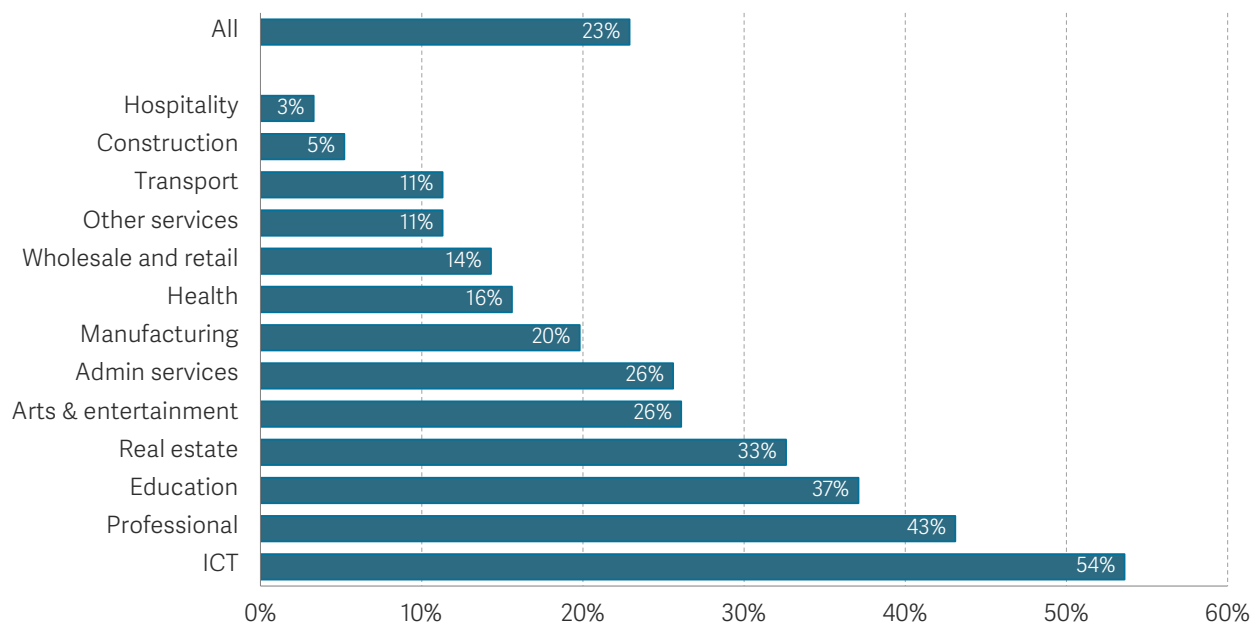
Just as with only a minority of workers working from home, only around 23 per cent of firms have adopted the practice as a permanent part of their business model. Figure 22 shows how working from home, from a firm-perspective, varies across industries. This

²³ For more on the different ways of measuring working from home, see: C Shine, [Working from home: comparing the data](#), ONS, May 2021.

result is perhaps surprising given that even in industries which require most actions to be conducted out of the home, the vast majority of firms will have at least some tasks which can be performed from the home. Figure 23 shows that despite this, there is a strong correlation between the proportion of workers' time in each industry spent working from home and the number of firms adopting the practise permanently. Together these figures demonstrate that the utopian view of very high levels of working from home in the future has not yet materialised. And if the level of home working has reached its 'new normal', then any benefits to the economy should largely have already been achieved.

FIGURE 22: Only a minority of businesses are using increased home working permanently

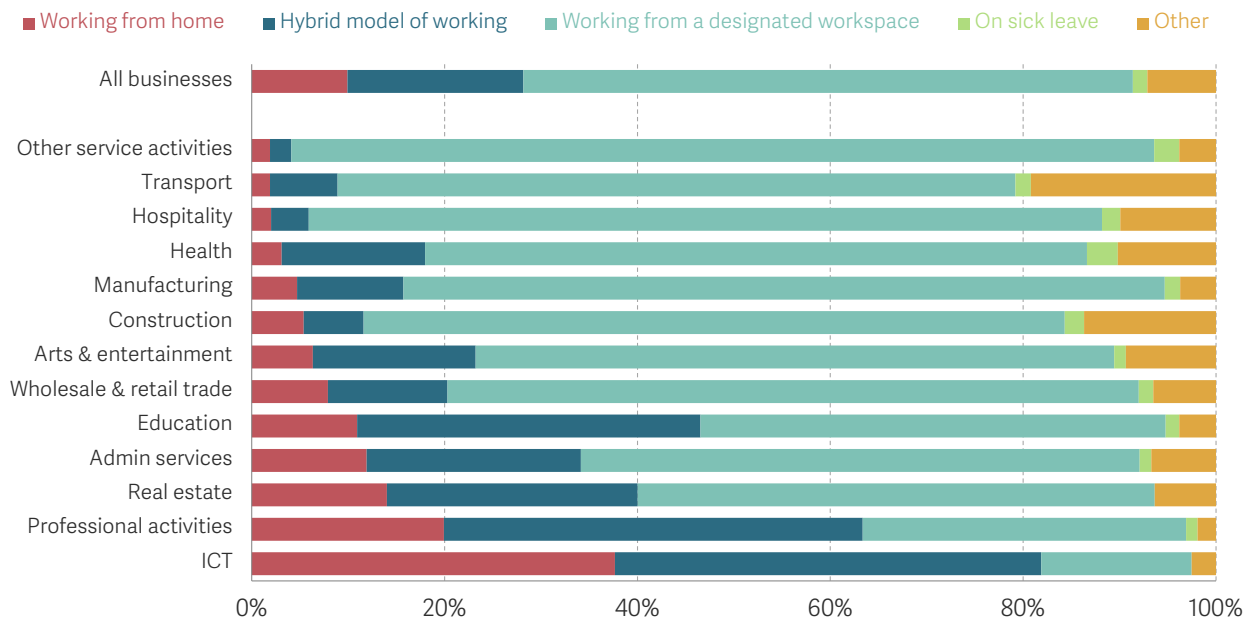
Proportion of businesses using, or intending to use increased homeworking as a permanent business model in the future, by industry: UK, 4 April to 17 April 2022



SOURCE: ONS, BICS.

FIGURE 23: There is a close correlation between the proportion of firms adopting home working within industries and the proportion of workers working from home

Proportion of workforce by location of work: UK, 1 to 31 March 2022



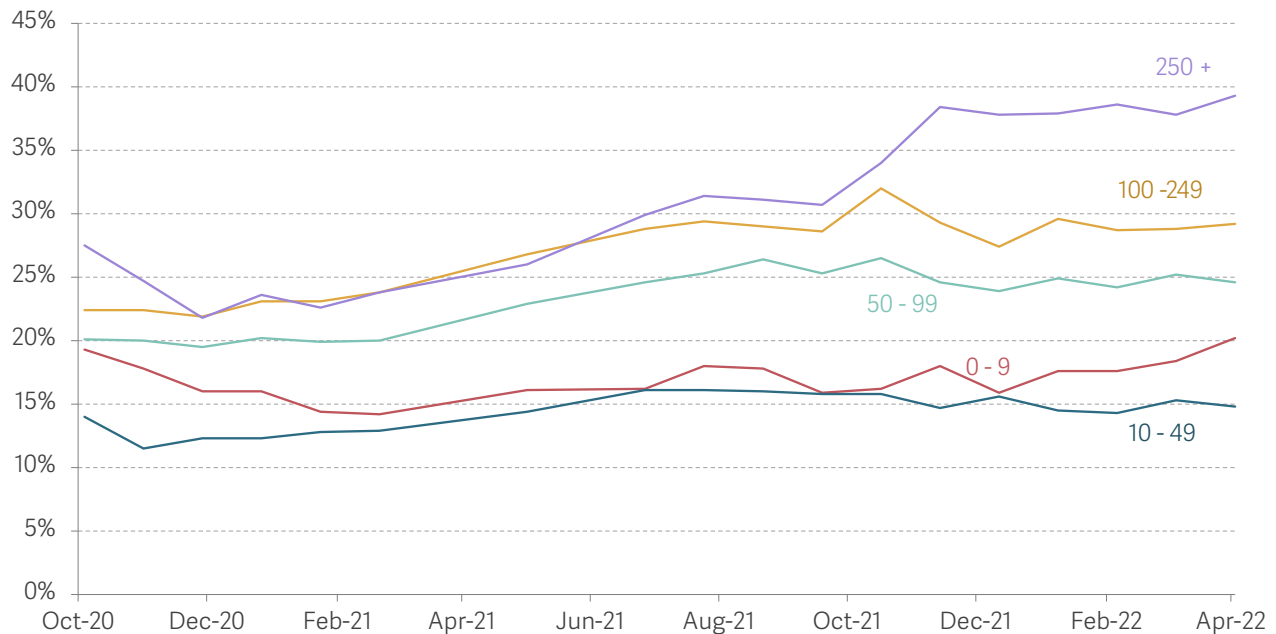
SOURCE: ONS, BICS.

There is some scope for working from home to rise above current levels

Interestingly, the proportion of businesses utilising working from home as a permanent part of their business model has been rising throughout the pandemic (Figure 24). For the largest firms – those with over 250 employees – the total proportion of firms using increased working from home has risen to 40 per cent up from 23 per cent in November 2020. However, there has been relatively little change since the start of 2022.

FIGURE 24: The proportion of firms permanently using home working has risen, particularly large firms

Proportion of businesses using, or intending to use increased homeworking as a permanent business model in the future, by size of firm: UK

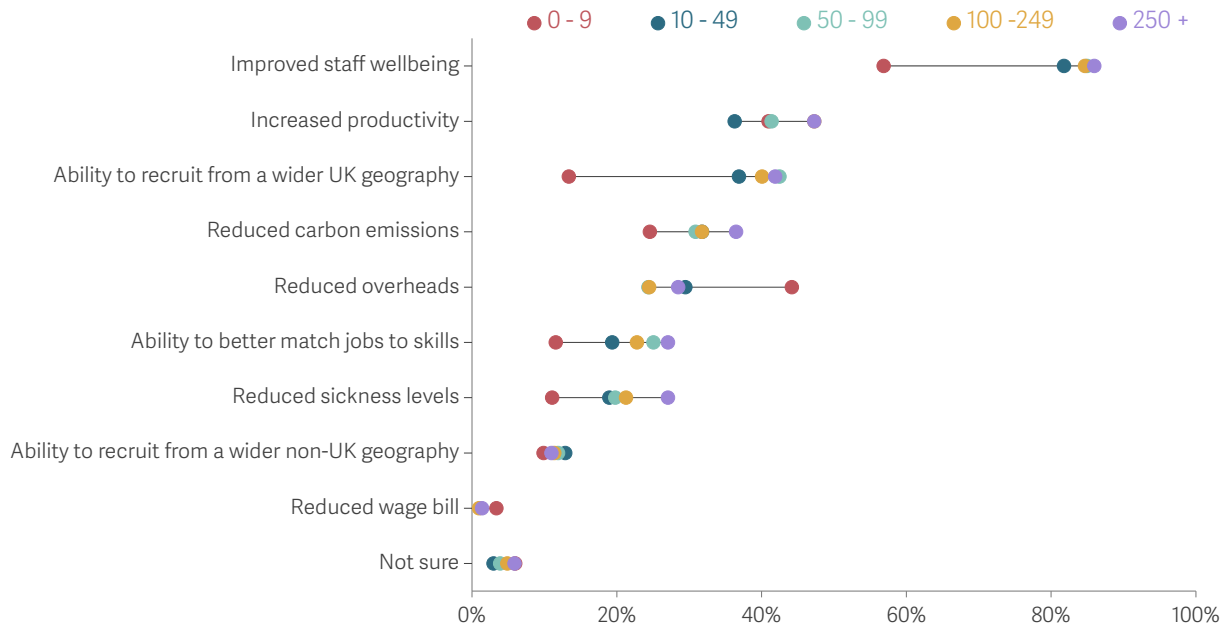


NOTES: Firm size is defined by number of employees.
SOURCE: ONS, BICS.

It is useful to understand why firms are introducing home working permanently. This is because such evidence can give hints as to whether there will be increases in the future, and it also sheds light on what firms think the effect of more home working has been. Figure 25 provides the reasons firms are using home working. The clear standout reason is increased staff-well-being which was cited by over 80 per cent of all but the smallest firms. Although increased productivity was the second most cited reason, fewer than half of firms think working from home will improve it. This is somewhat in contrast both to those who criticise working from home as less productive, and also those who think it will revolutionise economic output. Also important to note is that there is potential for improved matching of workers to jobs, as a significant minority of firms report being able to recruit from a wider geographical area. Here the longer-term economic benefits from working from home could build over time: a better matching between roles and workers should increase productivity; and a wider geographical recruitment could help spread opportunities. But these benefits will only appear as workers switch jobs. Set against that is the difficulty in maintaining organisational culture, training and development which may mean costs also build over time.

FIGURE 25: Staff well-being is the key driver of increased working from home

Proportion of businesses intending to use working from home as a permanent part of their business model reporting drivers for its adoption: UK, 4 to 17 April 2022



NOTES: Firm size is defined by number of employees.
SOURCE: Analysis of ONS, BICS.

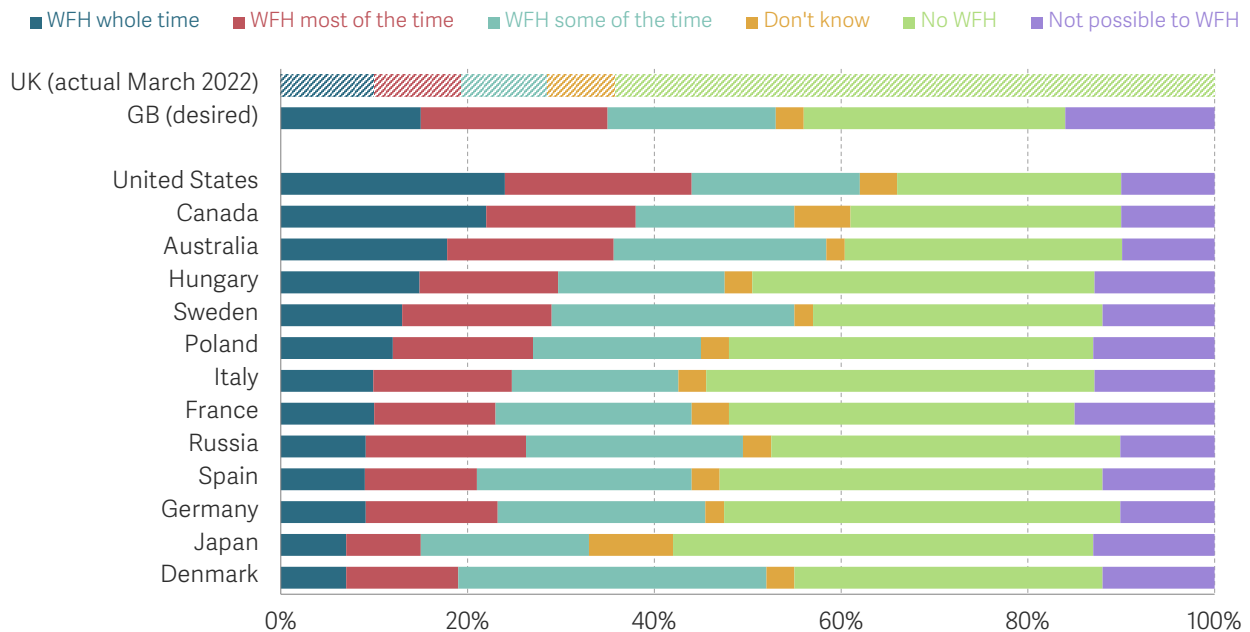
Firms’ motivation to increase staff well-being is reflected in the desired pattern of working from home for British workers. Figure 26 compares the method of working employees would most like to use in the UK compared to the actual current proportions and other countries. There are two clear conclusions: first, from this data it is clear that workers, on average, would prefer to work from home more than the current levels. This reinforces the idea that there are well-being benefits which can be captured by encouraging more working from home.²⁴ Second, the largest group of such workers is those who want to work from home some or most of the time – i.e. a hybrid model. This has implications for how firms operate (i.e. needing to maintain an office space) and the location of economic activity (i.e. workers will still need to live within commuting distance of workplaces).²⁵

²⁴ Previous research has found that working from home two days a week was worth 6 per cent of earnings to workers on average. See S Taneja, P Mizen & N Bloom, *Working from home is revolutionising the UK labour market*, VoxEU, March 2021.

²⁵ The impact of working from home on the economic geography of the UK is the subject of a follow-up paper as part of the Economic 2030 Inquiry.

FIGURE 26: Most workers would prefer to work from home at least some of the time

Proportion of workers reporting their desired working pattern once the pandemic is over (4th August to 21st September 2021) and the actual UK proportion of workers by working type (March 2022)



NOTES: For the actual March 2022 data, those working using a hybrid model have been split evenly into WFH most and some of the time, and those on sick leave have been excluded.
 SOURCE: Analysis of ONS, BICS; YouGov.

BOX 1: The economic effects of working from home

Matching the trend in working from home, over time there has been a gradual increase in research on the economic effects of working from home which then exploded during the pandemic. This box presents a summary of that research. There are a range of different methodologies for assessing the impact of working from home, including: workers’ self-reported experience through surveys, econometric analysis of output and inputs (measured in various different

ways), and randomised controlled trials. Working from home also has a range of different potential outcomes on productivity and labour markets.²⁶ Each of these is discussed below.

Productivity

Across multiple studies the impact of working from home has a mixed effect on productivity with at least some scope for upside potential. One high-quality detailed large-scale randomised

²⁶ The geographical consequences of working from home will be covered in a later paper as part of The Economic 2030 Inquiry.

controlled trial conducted before the pandemic in a call centre found that there was a 13 per cent increase in productivity (measured as total number of calls answered per employee), although two-thirds of this benefit was from more working time (longer hours and fewer sick days) and only one-third from higher productivity per hour.²⁷ One challenge with trials like this is that participants know they are part of a trial and so could temporarily increase effort in order to make working from home seem more successful so as to encourage adoption. This could bias the results and mean there is a less positive long-term effect. More broadly there might also be temporary benefits from a new way of working encouraging more effort which decline over time, or there could be longer-term costs such as with training or collaboration which are not picked up over the study horizon.

Another method is to ask workers directly. Survey evidence tends to find that there is a mix of self-reported outcomes for workers but that slightly more workers find positive effects on their productivity. For example, one survey taken of workers during the pandemic found that 49 per cent of those working from home said there was no productivity impact, 29 per cent reported increased productivity and 22 per cent had reduced productivity.²⁸

And finally a summary of studies including time series analysis has found more negative results with productivity tending to be negatively related to working from home during the pandemic – although disentangling the impact of Covid-19 and working from home on economic outputs is difficult.²⁹

Labour markets

One important aspect is how working from home will affect labour markets – particularly with regard to potential improvements in access to participation. There is good evidence that women were able to enter the labour market – particularly mothers – at greater rates during the pandemic because of the increase in the prevalence of working from home.³⁰ This is likely to boost economic activity as labour supply increases and have longer-term positive effects that are associated with working (e.g. lower poverty rates, greater equality, etc). In contrast to this some have argued that working from home could prove a barrier to progression if men are more likely to work in the office, however so far there is not a clear gender divide on prevalence of home working.³¹ There is also some evidence that women are less likely to have satisfactory working spaces where cross-country survey

²⁷ See: N Bloom et al., *Does Working from Home Work? Evidence from a Chinese Experiment*, *The Quarterly Journal of Economics*, February 2015. Caution should be taken in extrapolating these results to the whole economy because productivity effects within different industries/roles could vary widely.

²⁸ S Taneja, P Mizen & N Bloom, *Working from home is revolutionising the UK labour market*, VoxEU, March 2021.

²⁹ See: C Escudero & M Kleinman, *How did working from home during Covid-19 impact productivity?*, *Work/Place*, April 2022.

³⁰ See: M Brewer, C McCurdy & H Slaughter, *Begin again? Assessing the permanent implications of Covid-19 for the UK's labour market*, *The Economic 2030 Inquiry*, November 2021.

³¹ See M Sweeney, *Women working from home risk being caught in a 'she-cession'*, *The Guardian*, November 2021; ONS, *Opinion and Lifestyle survey*.

evidence has found women are more likely to report being constrained by the tools they have at home and their home office, and are less likely to report being efficient at home.³²

Taking all this evidence together, on balance, there is scope for working from home to be positive for productivity and workers but it is not definitive and will become clearer with time.

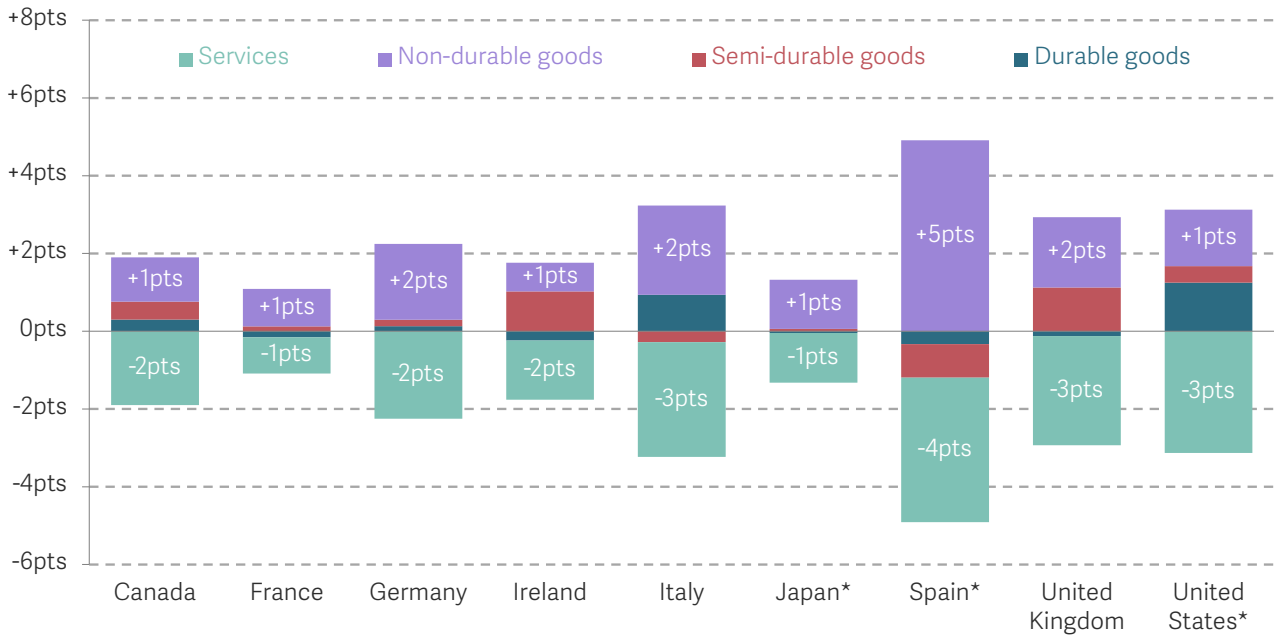
Changing consumption patterns have affected the distribution of economic output across sectors

Working from home is not the only structural shift in the economy caused by the pandemic. Consumer demand was fundamentally reshaped around the world as demand for services fell and demand for goods rose (Figure 27). In the UK, much of this shift has, in the latest data, reversed. Figure 28 shows how the current shift in the composition of household expenditure compares to the peak of the pandemic. Unsurprisingly, in Q2 2020 there was a huge change in demand – for example spending in restaurants and hotels fell by 84 per cent compared to pre-pandemic. Since then, demand has largely returned to previous patterns in the UK (Figure 28) with the main exception being transport where the share of household consumption is still down by 2.5 percentage points. These shifts have been important for understanding the scale of the economic changes during the pandemic and, given that global demand for goods is still likely to be affected by the impact of the pandemic, are a big factor in driving rising inflation and the cost of living crisis. But the current trend suggests the long-term effects are unlikely to be hugely significant.

³² See: C Ipsen et al., Six Key Advantages and Disadvantages of Working from Home in Europe during COVID-19, International Journal of Environmental Research and Public Health, February 2021.

FIGURE 27: Consumer demand has shifted away from services and towards goods

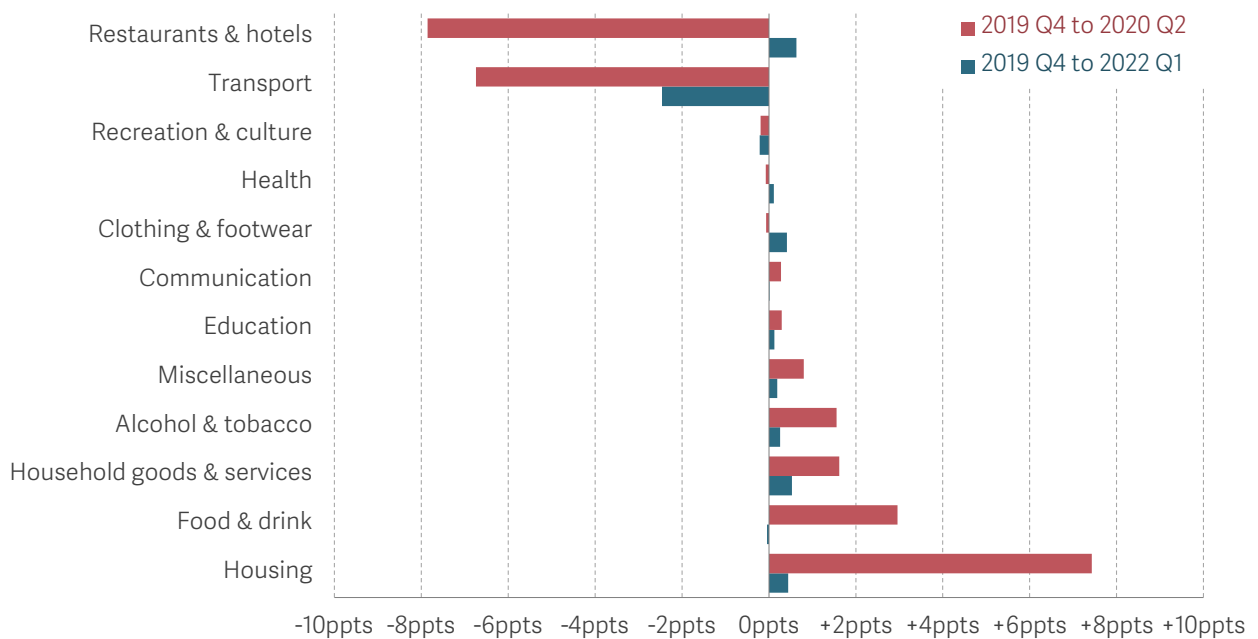
Change in share of household final consumption expenditure on sub-components, by country: 2019 to 2020/2021



NOTES: Japan, Spain and US data are for 2020 rather than 2021, all other countries are 2021.
SOURCE: Analysis of OECD.

FIGURE 28: Much of the shift in consumption patterns has now reversed

Change in share of household final consumption expenditure on sub-components: UK

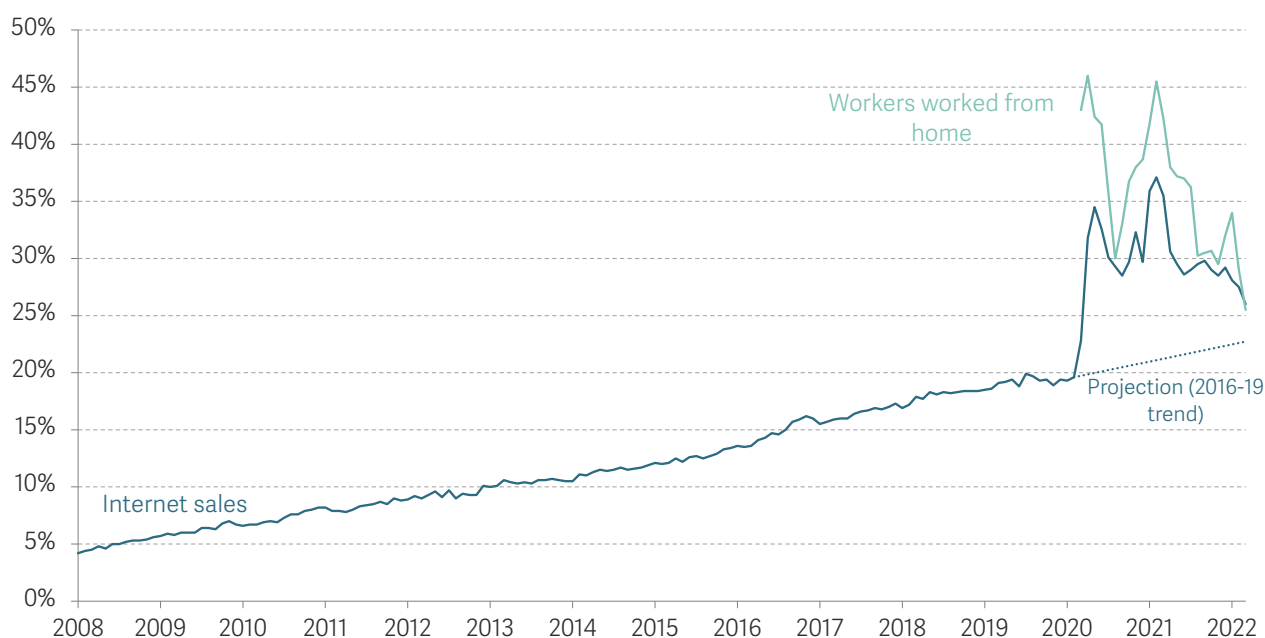


SOURCE: Analysis of ONS, GDP first quarterly estimate.

It is not just what consumers are purchasing but also how they are purchasing goods that has changed. Figure 29 shows the proportion of retail sales made online over time. This has risen consistently over time to reach a pre-pandemic level of a fifth of all sales being made online. In the pandemic that share exploded up to over 35 per cent at the end of 2020. However, since then the share of internet sales has fallen back and is now only 3 per cent above where it would have been given the pre-pandemic trend. This does still have implications for the economy – e.g. workers redistributed from retail stores to warehouses – but is not a hugely material shift when thinking about the total scale of change the economy has faced.

FIGURE 29: Internet sales rose during the pandemic but are now only slightly above trend

Share of retail sales made online and share of workers working from home in the preceding week: UK



SOURCE: Analysis of ONS, Retail Sales; ONS, BICS.

The pandemic caused huge shifts in how we worked and how we consumed. However, much of the change has reversed. The narrative that these trends are extraordinary or present a huge upside to economic growth in the future is unlikely to be true. Nevertheless, that does not mean that these trends should be ignored by policy makers. Encouraging working from home does present opportunities to workers as survey evidence shows the flexibility and reduction in commuting time this affords is valuable to them. It also comes with new policy challenges: ensuring people have safe working environments outside of the workplace and preventing working from home leading to increased work hours are just two areas policy makers will need to grapple with.

Section 6

Conclusion

The Covid-19 pandemic was hugely disruptive to all aspects of life in the UK, and the corporate sector was obviously not immune from the effects. The analysis in the report is intended to provide a comprehensive stocktake of how the pandemic has affected firms and what that means for the future of the economy. What emerges is that there are two fundamental areas which policy makers need to consider. First, the potential areas of optimism for increased productivity, albeit highly uncertain. And second, that prospects for business investment remain weak.

The upside for productivity from pandemic-related changes appears limited

There are optimists about the long-term impact of the pandemic on productivity growth – particularly from the increase in working from home. While there is some scope for the situation to change as the recovery from the pandemic continues, the analysis above provides some clear conclusions.

In the short term, the most striking development is the material rise in the amount of home working. There is some evidence to support the idea that there is scope for productivity improvements as a result – particularly in output per worker as workers partially substitute commuting time to working. But much of this effect is likely to already have taken place and so is already ‘baked in’ to the current productivity level as firms have had two years to properly implement the technology to work from home effectively.

For longer-term effects, working from home could still be important. Some firms do point towards working from home aiding skill and job matching which would imply productivity gains over time as workers move jobs, and there could be positive effects from a more equitable geographic distribution of jobs. However, both of these are currently largely speculative and policy makers should not rely on them being the answer to more than a decade of poor productivity performance. Perhaps more material is the large rise in firm creation. The productivity level of start-up firms tends to be lower than existing

firms but then grows faster in early life and there are also positive effects from inputs being redistributed to more efficient industries.³³ This means there could be a coming windfall of a rise in productivity growth, relative to an economy without this uptick in firm creation. But it is hard to quantify that effect at this stage or how long it will persist.

The weak business investment outlook

Business investment fell substantially during the pandemic, and although it is now recovering, it is doing so at a relatively slow pace. Indeed, the recovery is in line with the financial crisis when there were huge headwinds from high corporate sector debt and a scarred financial sector. The context matters here: business investment pre-pandemic had flatlined since the EU referendum in 2016; and the relatively small UK capital stock per worker is a key driver of the shortfall in UK productivity compared to some of our peers.³⁴

Policy makers need to understand why investment is weak in order to be able to address the issue. Here, firms' access to funding for investment does not appear to be the answer – due to the Government's pandemic response corporate debt has risen only slightly while cash holdings have grown and the financial sector was able to lend during the pandemic and net bank lending has been positive in recent months. This suggests that measures that target providing more finance to firms are unlikely to be effective.

Uncertainty remains a major barrier to investment. Although the level of uncertainty during the pandemic has receded, which should help firms be able to more confidently assess the return on new investment opportunities, it is still above pre-pandemic levels. Policy makers should be striving for a stable policy landscape with a credible and well-understood economic strategy – something which has been lacking since at least the EU referendum if not well before. That would provide a better foundation on which firms can make decisions for their future. This is an area the Economic 2030 inquiry will return to in later papers.

Policy makers should reflect on changes in the ways of working even if they do not end up having material long-term productivity benefits

Ultimately, we are only at the early stages of the pandemic recovery and it will take many years to fully understand the lasting impact Covid-19 had on firms and on the wider economy through firm-impacts. The optimistic view of an investment boom and innovative ways of working heralding a strong period of growth are overblown. So too

³³ For a discussion of this issue in the US context see: T Alon et al., Older and slower: The startup deficit's lasting effects on aggregate productivity growth, *Journal of Monetary Economics*, January 2018.

³⁴ See J Oliveira-Cunha et al., [Business time: How ready are UK firms for the decisive decade?](#), Resolution Foundation, November 2021.

are the pessimistic views, prevalent early in the pandemic, that there would be a long overhang of unproductive firms creating a drag on growth post-pandemic. But that does not mean policy makers can ignore the changes which have happened. Encouraging the higher rate of firm creation would be a positive step. So too would encouraging working from home, where possible, given that workers derive personal benefits from that way of working. Although that comes with important policy implications like: increasing housing costs from the 'race for space';³⁵ responding to the increase in inequality in well-being given hybrid working practises are most accessible to higher earners (those earning over £40,000 are almost five times as likely to be hybrid working as someone earning under £15,000 – 38 per cent and 8 per cent respectively);³⁶ and ensuring workers have a safe environment and a limited increase in working hours.

³⁵ For more on this see: L Judge, F Odamtten & K Shah, [Housing Outlook Q3 2021: The effect of transaction tax holidays on house prices](#), Resolution Foundation, August 2021.

³⁶ See ONS, [Is hybrid working here to stay?](#), May 2022.

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THE ECONOMY 2030 INQUIRY

SHAPING A DECADE OF CHANGE

The UK is on the brink of a decade of huge economic change – from the Covid-19 recovery, to exiting the EU and transitioning towards a Net Zero future. The Economy 2030 Inquiry will examine this decisive decade for Britain, and set out a plan for how we can successfully navigate it.

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