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:

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

▶ 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.

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)

● London   ● Smaller cities, bigger towns   ● Villages and smaller
● Big cities   ● Smaller towns

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

● London   ● Smaller cities, bigger towns   ● Villages and smaller
● Big cities   ● Smaller towns
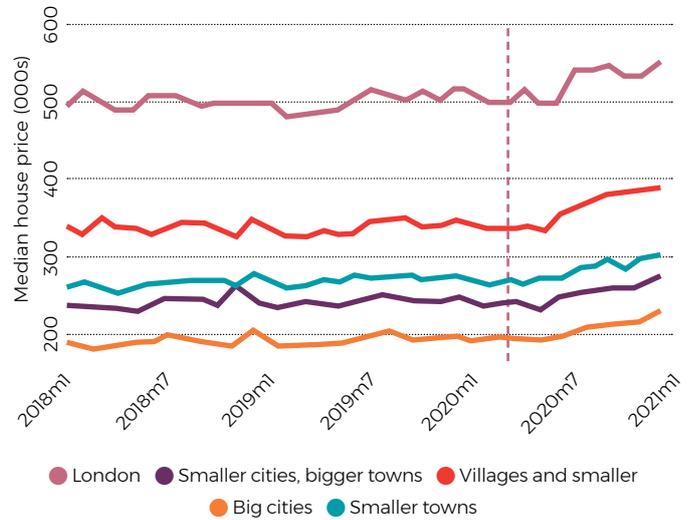
Note: The graph shows median prices (in thousands) per urban/rural category between January 2018 and December 2020. Transaction data is from the Land Registry. The urban/rural classification departs from the ONS 2011 classification.

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

● London   ● Smaller cities, bigger towns   ● Villages and smaller
● Big cities   ● Smaller towns
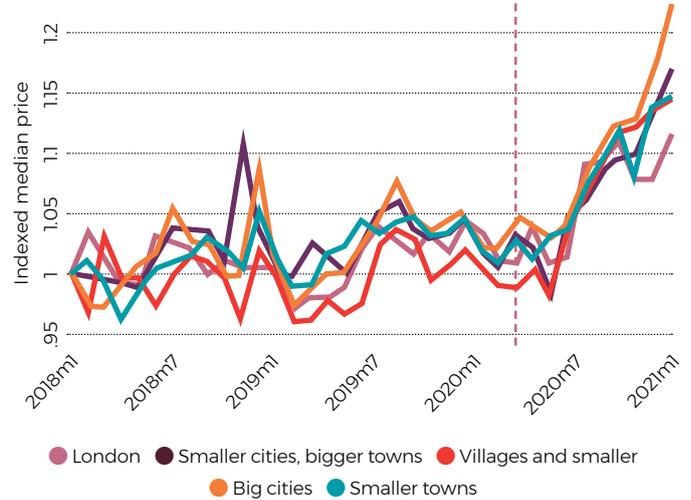
Note: The graph shows median prices per urban/rural category between January 2018 and December 2020, normalised to January 2018 levels. Transaction data is from the Land Registry. The urban/rural classification departs from the ONS 2011 classification.

Housing markets during the pandemic

6%

PRICE RISE IN MOST
POPULOUS AREAS

10%

PRICE RISE FEWEST RESIDENTS
PER SQUARE KILOMETRE

THE 'HALO EFFECT' —
RENTS FALL IN MAJOR UK
CITY CENTRES
AND RISE IN OUTER AREAS
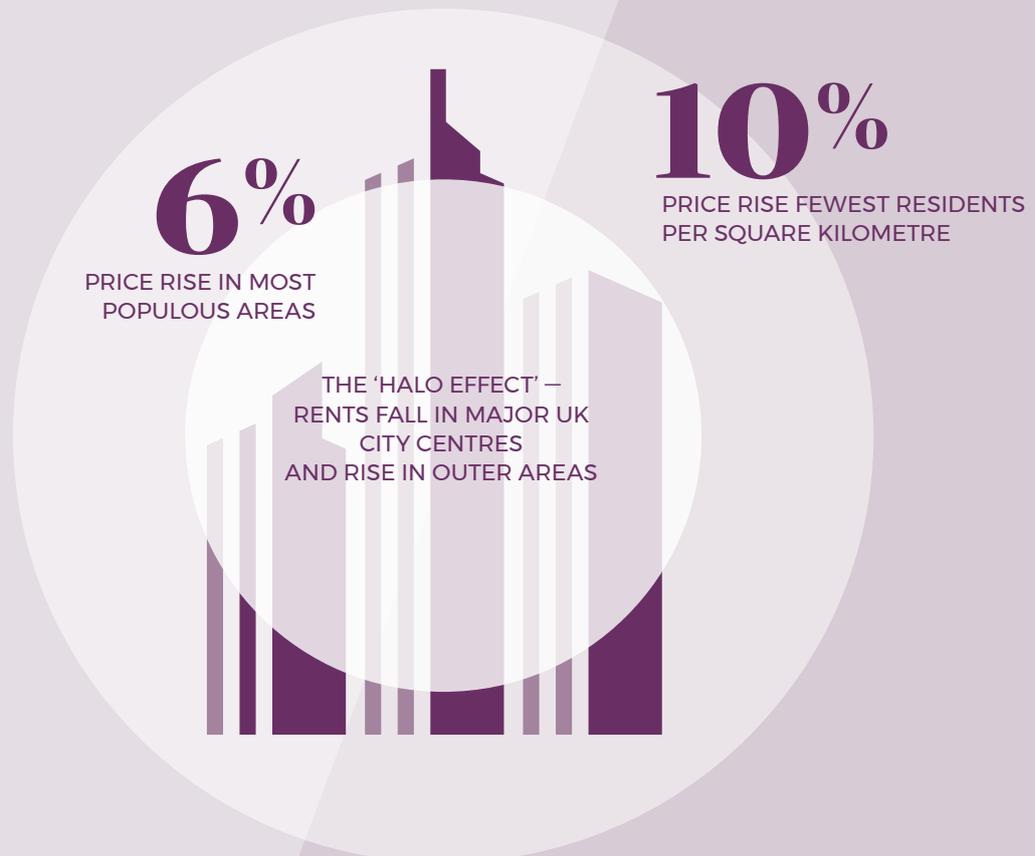
THE 'BUSINESS AS USUAL' finding for housing markets during the pandemic is consistent with some other recent work:

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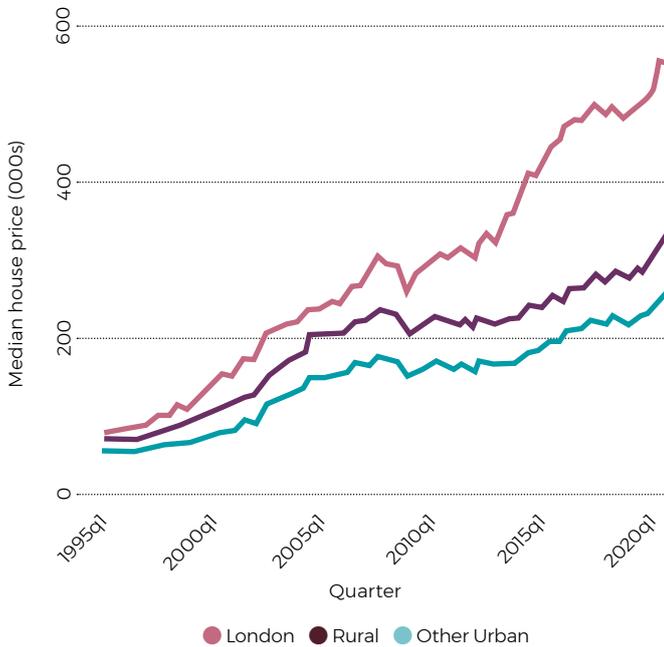
Figure 3b: House price differentials, 1995-2020, England and Wales

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

Median house price over annual income

- 1.75 — 5.37
- 5.38 — 7.47
- 7.48 — 9.72
- 9.73 — 12.55
- 12.56 — 16.95
- 16.96 — 33.56
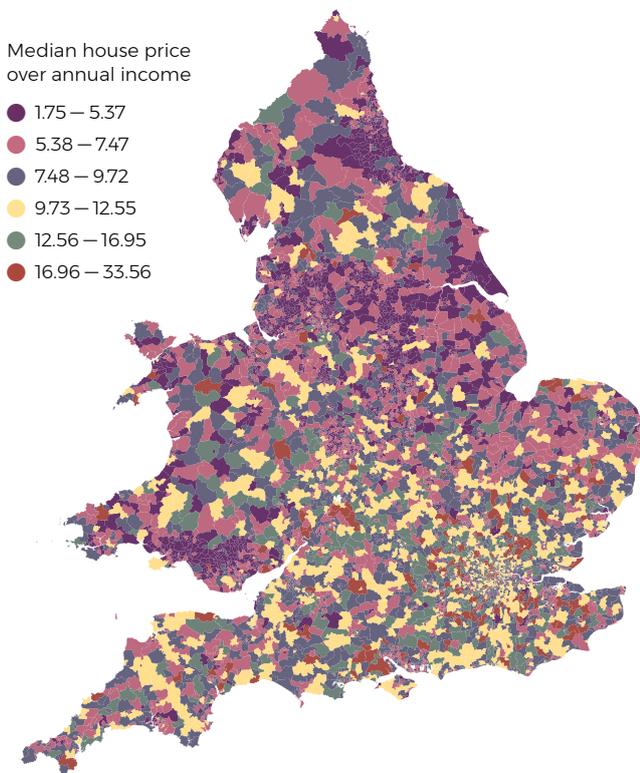
Note: The graph shows a map of the affordability index for wards in England and Wales (N=8,063). The affordability index is constructed by normalising median house price data in 2020 over the net annual income. House price data comes from the Land Registry and net annual income comes from the income 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

Median house price over annual income

- 1.75 — 5.37
- 5.38 — 7.47
- 7.48 — 9.72
- 9.73 — 12.55
- 12.56 — 16.95
- 16.96 — 33.56
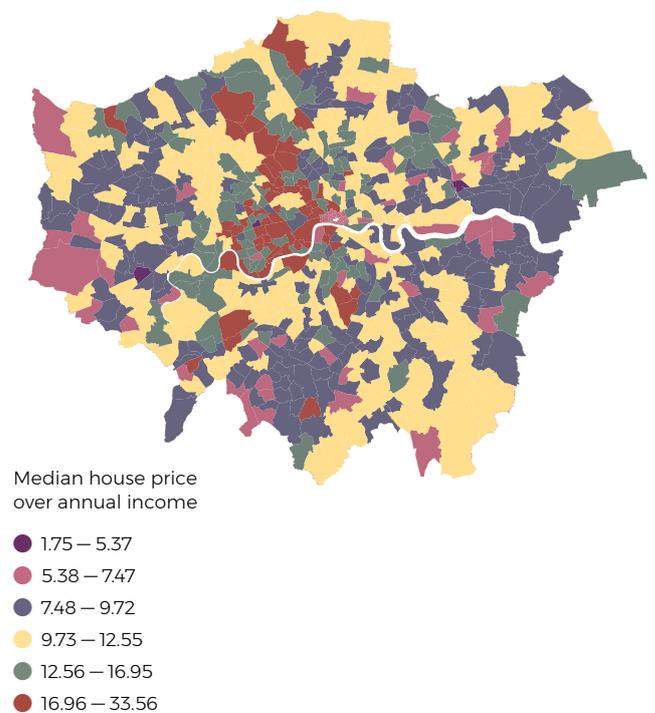
Note: The graph shows a map of the affordability index for wards in Greater London, excluding the City of London (N=594). The affordability index is constructed by normalising median house price data in 2020 over the net annual income. House price data comes from the Land Registry and net annual income 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
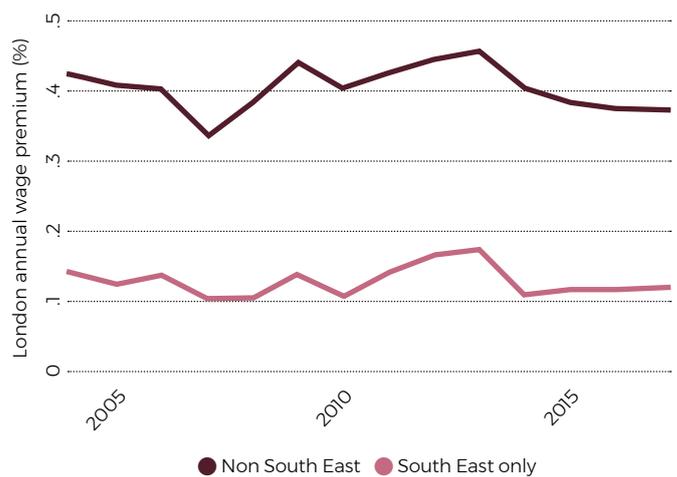
Note: This graph shows average annual wage levels calculated from the Annual Survey of Hours and Earnings (ASHE) and obtained from the Nomis labour market data system. Nominal values for annual wages are used.

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*** (0.018)	0.243*** (0.007)	0.173*** (0.009)	0.059*** (0.002)
Year 2014 (dummy)	0.023*** (0.007)	0.070*** (0.001)	0.071*** (0.001)	-0.002*** (0.001)
Year 2016 (dummy)	0.028*** (0.006)	0.088*** (0.001)	0.089*** (0.001)	-0.001*** (0.001)
Year 2018 (dummy)	-0.002 (0.008)	0.119*** (0.001)	0.127*** (0.001)	-0.009*** (0.001)
London * 2014	0.047*** (0.015)	-0.055*** (0.002)	-0.071*** (0.002)	0.012*** (0.002)
London * 2016	0.131*** (0.013)	-0.046*** (0.002)	-0.071*** (0.003)	0.020*** (0.001)
London * 2018	0.134*** (0.016)	-0.021*** (0.002)	-0.035*** (0.003)	0.014*** (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.

References

Ahlfeldt, G.M., Bald, F., Roth, D. and Seidel, T. (2020). Quality of life in a dynamic spatial model. CEP Discussion Paper (no. 1736). London: Centre for *Economic Performance*.

Best, M. and Kleven, H. (2018). Housing Market Responses to Transaction Taxes: Evidence from Notches and Stimulus in the UK. *Review of Economic Studies*, 85, pp. 157–193.

Cheshire, P., Hilber, C. and Schoeni, O. (2021). *The pandemic and the housing market: a British story.* CEPCOVID-19-020. London: London School of Economics.

Cheung, K.S., Yiu, C.Y. and Xiong, C. (2021). Housing Market in the Time of Pandemic: A Price Gradient Analysis from the COVID-19 Epicentre in China. *Journal of Risk and Financial Management*, 14(3), p. 108.

Gibbons, S., Overman, H. and Pelkonen, P. (2014). Area Disparities in Britain: Understanding the Contribution of People vs. Place Through Varaiance Decompositions. *Oxford Bulletin of Economics and Statistics*, 76(5), pp. 745–763.

Gupta, A., Mittal, V., Peeters, J. and Van Nieuwerburgh, S. (2021). *Flattening the Curve: Pandemic-Induced Revaluation of Urban Real Estate*. NYU Stern School of Business Forthcoming, Columbia Business School Research Paper Forthcoming. http://dx.doi.org/10.2139/ssrn.3780012 (accessed 9 August 2021).

Huang, N., Pang, J. and Yang, Y. (2020). *The Impact of the COVID-19 Epidemic on the Housing Market in China.* http://dx.doi.org/10.2139/ssrn.3642444 (accessed 9 August 2021).

Judge, L. and Pacitti, C. (2021). The impact of Covid-19 on housing demand across the UK. *Housing Outlook Q2 2021*. London: Resolution Foundation.

Kolko, J., Badger, E. and Bui, Q. (2021). How the Pandemic Did, and Didn't, Change Where Americans Move. *New York Times*. 19 April.

Liu, S. and Su, Y. (2021). *The Impact of the COVID-19 Pandemic on the Demand for Density: Evidence from the U.S. Housing Market*. http://dx.doi.org/10.2139/ssrn.3661052 (accessed 9 August 2021).

Nathan, M. and Overman, H. (2020). Will coronavirus cause a big city exodus? *Environment and Planning*, B 47(9), pp. 1537–1542.

Nieves, V. (2021). Por qué se dispara el precio de la vivienda en Europa en medio de la crisis económica [Why house prices are skyrocketing in Europe amid the economic crisis]. *El Economista*. https://www.eleconomista.es/vivienda/noticias/11195259/05/21/Por-que-se-dispara-el-precio-de-la-vivienda-en-Europa-en-medio-de-la-crisis-economica.html (accessed 9 August 2021).

Patino, M., Kessler, A., Holder, S., Gu, J. and Rojanasakul, M. (2021). More Americans Are Leaving Cities, But Don't Call It an Urban Exodus. *Bloomberg CityLab.* 26 April.

Ramani, A. and N. Bloom (2021). The donut effect: How COVID-19 shapes real estate. Stanford, CA: Stanford Institute for Economic Policy Research.

Yoruk, B. (2020). *Early Effects of the COVID-19 Pandemic on Housing Market in the United States.* http://dx.doi.org/10.2139/ssrn.3607265 (accessed 9 August 2020).

Zhao, Y. (2020). US Housing Market During COVID-19: Aggregate and Distributional Evidence. *IMF Working Paper* (no. 2020/212). https://ssrn.com/abstract=3744679 (accessed 9 August 2021).

Zoopla (2021). UK Rental Market Report, February.

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."