

Economic Evidence to Inform Recovery Planning in the Wake of Covid-19:

A discussion paper for Nottinghamshire County Council

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Contents

| | |
|--|----|
| Introduction | 3 |
| Structural challenges before Covid-19..... | 4 |
| The UKCI Methodology | 4 |
| Overall Competitiveness of Nottinghamshire..... | 6 |
| Conclusions – structural challenges and opportunities..... | 10 |
| Economic Impacts of the Pandemic and Prospects for Recovery..... | 14 |
| Key findings..... | 14 |
| Sectoral impact..... | 14 |
| Local analysis..... | 17 |
| Conclusions and Recommendations..... | 23 |
| Long term structural challenges | 23 |
| Sectors, skills and qualifications | 24 |
| Growth..... | 24 |
| Appendix..... | 26 |

Introduction

This paper has been commissioned by Nottinghamshire County Council to inform future recovery planning in the wake of the ongoing Covid-19 Pandemic. The views expressed in this report are those of the authors and do not represent the views of Nottinghamshire County Council. Furthermore, it is not the place of the authors to produce a recovery plan for Nottinghamshire County Council. Recovery planning requires both an understanding of the available economic evidence – interpreted in light of the wider body of knowledge relating to local economic development – and a detailed understanding of the County’s operating context, capabilities, resources and, importantly, local communities across the County. This report is intended to address the former requirement rather than the latter.

The approach adopted in preparation of this report reflects the proposition that, in planning for recovery, Nottinghamshire County Council and its partners must respond to the exigencies of a unique social, economic and public health crisis, but do so without losing sight of the long term structural challenges faced by the County. This is reflected in our approach to gathering appropriate evidence. This report is structured as follows:

1. Firstly we review the economic character and relative performance of the Nottinghamshire economy prior to the onset of the Pandemic. This is intended to provide a perspective on the long-term structural challenges faced by the County. This analysis combines data from a number of sources but is principally based on the UK Competitiveness Index (Huggins 2003).
2. We then review emerging economic evidence relating both to the local economic impacts of the pandemic and prospects for recovery. This material draws on work undertaken to monitor these emerging impacts by the Midlands Engine Economic Observatory and the D2N2 LEP. To this we add bespoke analysis of Bank of England Decision Maker Panel Survey data to assess the potential trajectories for private sector employment, sales and investment for Nottinghamshire and its constituent local authority districts.
3. Finally, we conclude with a number of conclusions and recommendations intended to inform recovery planning.

We note that in identifying relevant economic evidence, we focus here on sources of useful economic insight that may be less familiar to officers and members of the Council. Hence our objective is to supplement and extend knowledge of available evidence rather than to duplicate the work routinely done internally by Nottinghamshire County Council officers.

Structural challenges before Covid-19*

This section of the report examines the economic competitiveness of the Nottinghamshire County Council area and its implications for recovery after the Covid-19 crisis. This will mean considering the position of the county before the crisis in terms of outcomes for the population, but also importantly for the current situation to what extent the resources available and how they are utilised position the county for recovery (Huggins and Thompson, 2017a). This will allow insights into restrictions and problems as well as potential policy and practical interventions that may be of most value for Nottinghamshire. This analysis utilises the UK Competitiveness Index (UKCI) (Huggins, 2003) as the primary source of data.

The UKCI, as is described in more detail in Section 2, allows Nottinghamshire's competitiveness to be compared to the UK average and the relative position of other unitary authorities and counties in Great Britain. It is also able to break the UKCI down into a number of sub-indices to understand the source of this competitiveness and also make comparisons over time. Although, it is desirable to look forward in time it is important to understand the trajectory of the county prior to the crisis as some on-going patterns may be accelerated, potentially either for the better or worse.

Analysis will be conducted at both the county level and also at the level of the constituent local authority districts. This is to reflect the fact that although quite different conditions are found across the UK, there are also found to be considerable differences within areas as small as counties (Huggins et al., 2019). This can reflect historical patterns of development associated with the location of resources, which leave a persistent impact both structurally (Karagounis et al., 2020) and psychologically on business and the population (Stuetzer et al., 2016; Obschonka et al., 2018). It will also reflect the geographical location of the local districts of Nottinghamshire relative to the large urban centre of Nottingham, as well as connections to other major transport links.

the remainder of the report is structured as follows. Section 2 will introduce the UKCI and its sub-indices, illustrating how these relate to different conceptions of local or regional competitiveness. The report will consider both the overall UKCI (Section 3), but in order to gain a deeper understanding of Nottinghamshire's strengths and weaknesses Sections 4 to 6 will cover the three sub-indices of the UKCI. Using an approach developed in Huggins et al. (2019) Section 7 will present a set of estimates of growth in GVA per capita using the current UKCI.

The UKCI Methodology

The data utilised in this study are from the UK Competitiveness Index (UKCI) (Huggins, 2003), with the figures being based upon those produced in the UKCI 2019 report (Huggins et al., 2019). These figures have been updated in three ways. First, the most recent figures relating to 2019 have been updated to incorporate the later releases of the underlying indicators. This reflects the lags in the release of these data from official sources. Second for the most recent measures and rankings the figures have been reproduced to account for the amalgamation of a number of local authorities in Suffolk and Dorset (Sandford, 2018). This means that the number of localities covered differ from earlier UKCI reports. Third as the focus of this report is on the Nottinghamshire County Council area UKCI figures have been produced at the unitary authority and county level, whereas previously reported figures have been at the local authority district and Local Enterprise Partnership (LEP) levels. It should be noted that for brevity this report will refer to Nottinghamshire meaning the Nottinghamshire County

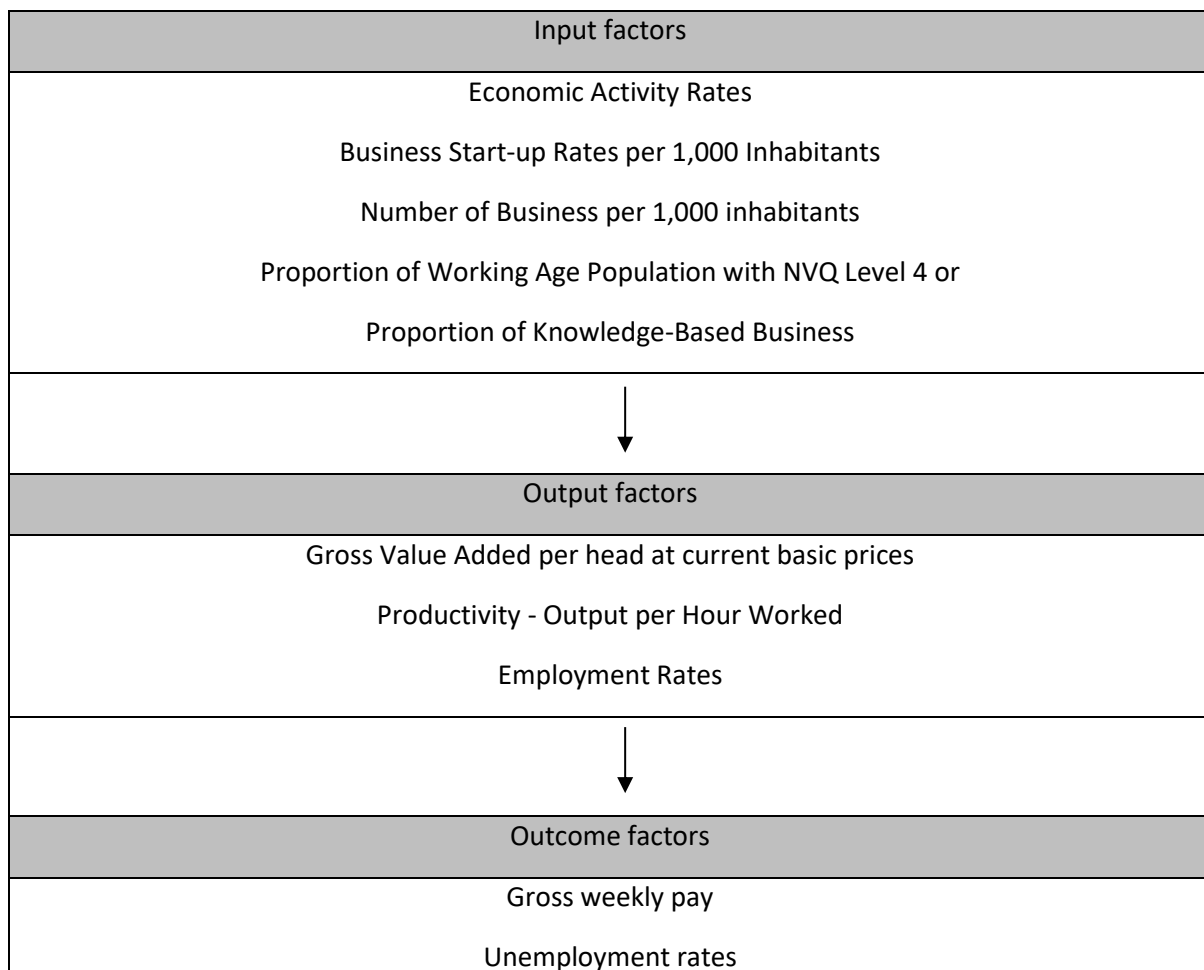
* This section is an abridged summary of a more detailed analysis also supplied to NCC.

Council area, and therefore excludes Nottingham in the figures reported. Comparative figures for Nottingham will be reported, but will appear separately in the tables produced.

The UKCI, which was first introduced and published in 2000, provides a benchmarking of the competitiveness of the UK's localities, and is designed to be an integrated measure of competitiveness focusing on both the development and sustainability of businesses and the economic welfare of individuals. In this respect, *competitiveness is considered to consist of the capability of an economy to attract and maintain firms with stable or rising market shares in an activity, while maintaining stable or increasing standards of living for those who participate in it.* This definition makes clear that local competitiveness occurs only when sustainable growth is achieved at labour rates that enhance overall standards of living.

The UKCI is based on a *3-Factor model* for measuring competitiveness, as shown by Figure 1. The 3-Factor model consists of a linear framework for analysing competitiveness based on: (1) input; (2) output; and (3) outcome factors. In order to achieve a valid balance between each of the indicators, in terms of their overall significance to the composite index, each of the three measures - Measure 1: Inputs; Measure 2: Output; and Measure 3: Outcomes - are given an equal weighting, since it is hypothesised that each will be interrelated and economically bound by the other (Huggins, 2003).

Figure 1: The 3 Factor Model Underlying the UK Local Competitiveness Index



Source: Huggins, R. and Thompson, P. (2013a) *UK Competitiveness Index 2013*, Cardiff: School of Planning and Geography, Cardiff University.

The individual indices therefore reflect differing approaches to measuring competitiveness. The UKCI Input Index captures what Aiginger and Firgo (2017) refer to as process competitiveness. This consists of examining the conditions and resources required to compete. The third index, the UKCI Outcome Index, captures the influence on the population's welfare and is a measure of outcome competitiveness (Aiginger and Firgo, 2017). The UKCI Output Index forms an intermediate step. Although, the UKCI Output Index component indices are frequently used as outcome competitiveness measures, the UKCI uses them to reflect the ability to convert inputs available into economic outputs, but these may not necessarily lead to rising living standards for the population. It is the UKCI Outcome Index which directly examines this to ensure that competitiveness is not being achieved purely on a cost basis and shedding of employment (Malecki, 2017).

Aiginger and Firgo (2017) highlight the value of outcome competitiveness measures accounting for factors such as the environment and working conditions. This helps to confirm the relationship between competitiveness measures and the population's well-being which whilst intuitive could be put under strain by negative side effects from economic success such as pollution (Huggins and Thompson, 2012). For Nottinghamshire such factors may be of importance in the future particularly given developments relating to energy supply and storage which may have importance for renewable energy provision (Rossiter and Smith, 2018) and the need to look for alternative renewable energy production as traditional energy production in Nottinghamshire and the wider East Midlands is cut back (Abdo and Ackrill, 2016). Given calls to use Covid-19 as an opportunity to change lifestyles and priorities for a greener, more equitable and more sustainable focus less based on consumption, such considerations may be of particular importance (Cohen, 2020).

The overall UKCI and sub-indices all compare the areas contained within the index to the UK average. This means that an area may see an improvement in the individual measures that go into the UKCI, but still see its UKCI score and ranking fall if the UK as a whole improves to a greater extent. This acknowledges the argument that although regions, unlike firms, are not necessarily engaged in a winner takes all contest and cannot go 'out of business', they are competing with one another to attract resources including capital investment and skilled labour that provide the platform for their businesses to succeed in their chosen market and capture this success within the region (Begg, 1999; Huggins and Thompson, 2017a). This means that the position of Nottinghamshire and its constituent local authority districts relative to other localities is important.

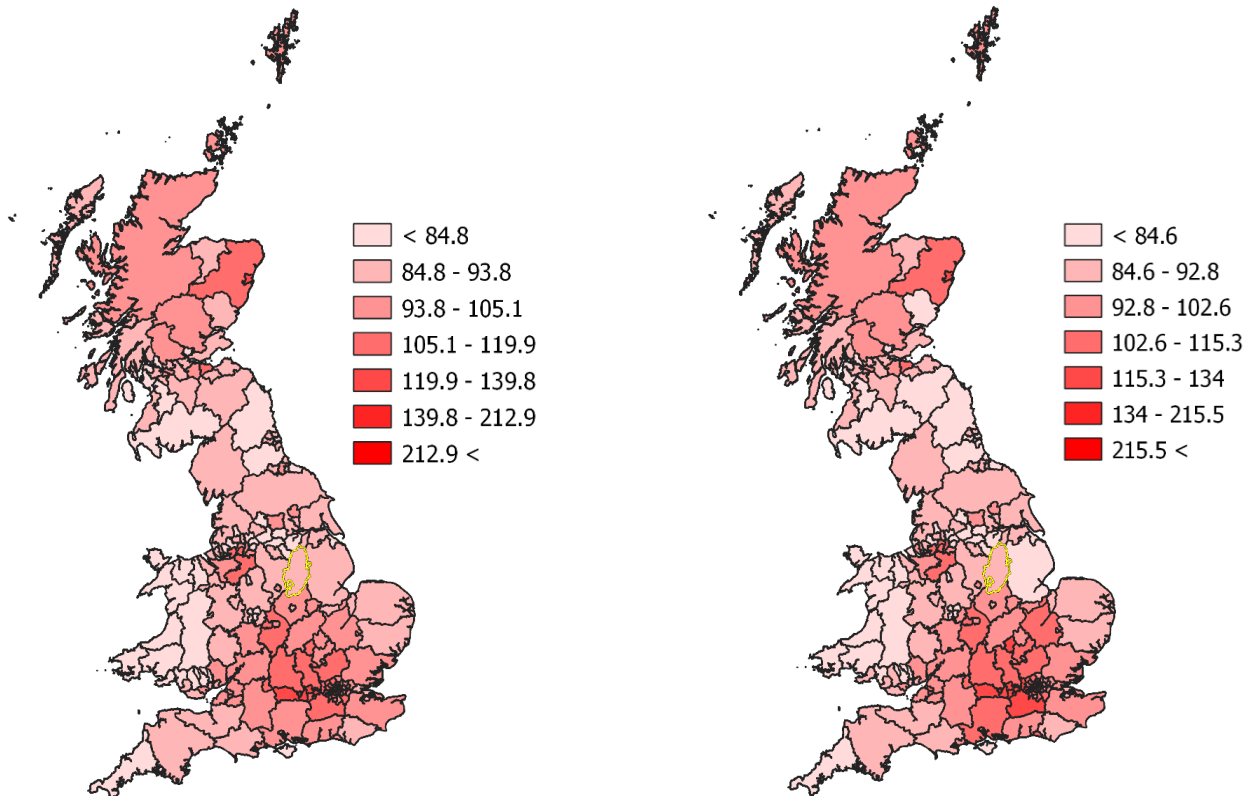
Overall Competitiveness of Nottinghamshire

Nottinghamshire appears to be one of the less competitive localities as a whole. However, this is where it is important to take account of the overall distribution of competitiveness across the UK before examining the UKCI scores for individual counties, as the average of the UKCI is strongly skewed and influenced by the more competitive outliers in London and the South East. This means that from a simple examination of the maps in Figure 2 it is clear that Nottinghamshire is below the average this is something it shares in common with most counties and unitary authorities across Great Britain. Its competitiveness is similar to much of the East Midlands, Yorkshire and Humber, North West and compares favourably with the North East and Wales.

Figure 2. UK Competitiveness Index (UKCI) Unitary Authorities and Counties 2015 and 2019

2015

2019



The other thing to note is that the geographical pattern of competitiveness across Great Britain is relatively stable over time. Any changes are likely to be restricted to individual counties and unitary authorities rather than being rapid changes in competitiveness over whole regions. However, it should be acknowledged that this might not be the case over the next five years as the size of the Covid-19 shock means that the related concept of resilience will be important. As discussed in Section 4 the recoverability element of the resilience process (Martin and Sunley, 2017) and re-orientation conception of resilience (Martin, 2012), will determine to what extent these patterns change or are deepened. The UKCI Input Index measures will provide insight here as they capture the resources that are available to achieve this adaptation.

Figure 2 showed the UKCI across the counties and unitary authorities of Great Britain, but it would be inappropriate to make a detailed comparison of Nottinghamshire with all these areas as many have quite different administrative structures (single tier rather than multi-tier), and differing natures in terms of geographical scale, population size and urbanity. This makes it more appropriate to compare Nottinghamshire with the other 25 English counties with the same multi-tier administrative structure (Table 1). This means excluding areas such as Herefordshire, which although a county and therefore could have been included, but is a unitary authority, and it was felt to be better to have a clear definition to allow more meaningful comparisons to be made.

Table 1 - UKCI for Counties 2019

| Counties Rank 2019 | County | 2019 | 2015 | Rank 2015 | Change 2015 to 2019 | |
|-----------------------|------------------------|-------------|-------------|--------------|---------------------|------------------|
| | | | | | UKCI | Counties Rank |
| 1 | Surrey | 116.6 | 119.0 | 1 | -2.4 | 0 |
| 2 | Hertfordshire | 111.2 | 110.8 | 3 | 0.4 | +1 |
| 3 | Buckinghamshire | 108.6 | 111.6 | 2 | -3.0 | -1 |
| 4 | Warwickshire | 105.9 | 106.6 | 5 | -0.7 | +1 |
| 5 | Oxfordshire | 105.7 | 109.2 | 4 | -3.5 | -1 |
| 6 | Hampshire | 105.6 | 104.9 | 6 | 0.7 | 0 |
| 7 | Cambridgeshire | 104.2 | 104.7 | 7 | -0.6 | 0 |
| 8 | Gloucestershire | 98.7 | 100.7 | 8 | -2.0 | 0 |
| 9 | Northamptonshire | 97.5 | 96.7 | 9 | 0.8 | 0 |
| 10 | Leicestershire | 96.4 | 96.7 | 10 | -0.3 | 0 |
| 11 | Kent | 95.2 | 95.4 | 11 | -0.2 | 0 |
| 12 | Worcestershire | 94.7 | 94.4 | 12 | 0.3 | 0 |
| 13 | North Yorkshire | 91.5 | 92.1 | 14 | -0.6 | +1 |
| 14 | Suffolk | 91.3 | 91.1 | 16 | 0.2 | +2 |
| 15 | Cumbria | 90.6 | 92.6 | 13 | -2.0 | -2 |
| 16 | Lancashire | 90.5 | 90.5 | 18 | 0.0 | 2 |
| 17 | Dorset | 89.7 | 92.0 | 15 | -2.3 | -2 |
| 18 | Staffordshire | 89.0 | 89.8 | 20 | -0.8 | +2 |
| 19 | Devon | 88.7 | 90.0 | 19 | -1.3 | 0 |
| 20 | Somerset | 88.4 | 89.8 | 21 | -1.3 | +1 |
| 21 | Derbyshire | 86.8 | 90.8 | 17 | -4.0 | -4 |
| 22 | Nottinghamshire | 86.7 | 87.7 | 22 | -1.0 | 0 |
| 23 | Norfolk | 86.1 | 87.0 | 23 | -0.9 | 0 |
| 24 | East Sussex | 85.0 | 87.0 | 24 | -2.0 | 0 |
| 25 | Lincolnshire | 84.2 | 85.9 | 25 | -1.7 | 0 |

From Table 1 it is clear that overall Nottinghamshire is one of the less competitive counties in England (ranked 22nd out of 25 in 2019). It's UKCI of 86.7 is below the UK average (UKCI = 100), but as discussed above should be considered in the context of the average being pulled upwards by the dominant London and South East England economies. This is reflected in the fact that only seven counties have a UKCI score above the UK average in 2019.

Studies globally that have noted the resurgence of the larger urban areas in 21st century, driven by the knowledge economy (Bontje et al., 2017; Huggins and Thompson, 2020). This helps explain why the generally more rural county areas in Table 1 have more frequently seen their position weaken compared to the UK average between 2015 and 2019. The UKCI scores for 19 of the 25 counties fall between 2015 and 2019. Nottinghamshire has declined from 87.7 in 2015. This has not seen a fall in Nottinghamshire's UKCI county ranking which was also 22nd in 2015, but is suggestive of a loss of competitiveness affecting this group of areas more generally over time. Further, in the UK Sunley et al. (2020) have found that skilled labour has been drawn to urban areas in the southern England, which fits with the pattern of competitiveness seen across Great Britain in Figure 2. Although not all of the counties more successfully maintain their UKCI scores between 2015 and 2019 are in the South East,

Hampshire and Hertfordshire are, and others such as Northamptonshire (East Midlands) and Suffolk (East of England) are geographically close to the South East within their regions.

Up to now competitiveness has been considered for Nottinghamshire as a whole. The following figures are calculated at the local authority district level. This will allow the different levels of competitiveness within Nottinghamshire to be considered to provide an understanding of whether the relatively low UKCI score for Nottinghamshire reflects a uniform pattern, or as found in previous UKCI reports (Huggins and Thompson, 2013a; 2013b), and other studies (Lawton et al., 2014; Centre for Cities, 2018; Karagounis et al., 2020) there are differences within Nottinghamshire.

Before examining the competitiveness of districts within Nottinghamshire it is worth contemplating how they interact with one another, and also the city of Nottingham. It would be inappropriate to consider localities as totally isolated independent entities. This is particularly the case when there is a larger dominant urban area in close geographical proximity, as they tend to affect the performance of surrounding localities either in a positive manner (Jones et al., 2015; Harrison and Heley, 2015) or a negative one where resources are drawn into or purposively concentrated in urban areas with greater potential for growth (Haughton et al., 2016).

A review of commuting data from the 2011 census demonstrates quite different economic and social relationships between the Nottinghamshire districts and Nottingham. Given the likely importance of these commuting patterns within Nottinghamshire when attempting to interpret the different measures of competitiveness used in this report, Nottingham is included in the analysis along with the seven local authority districts of Nottinghamshire.

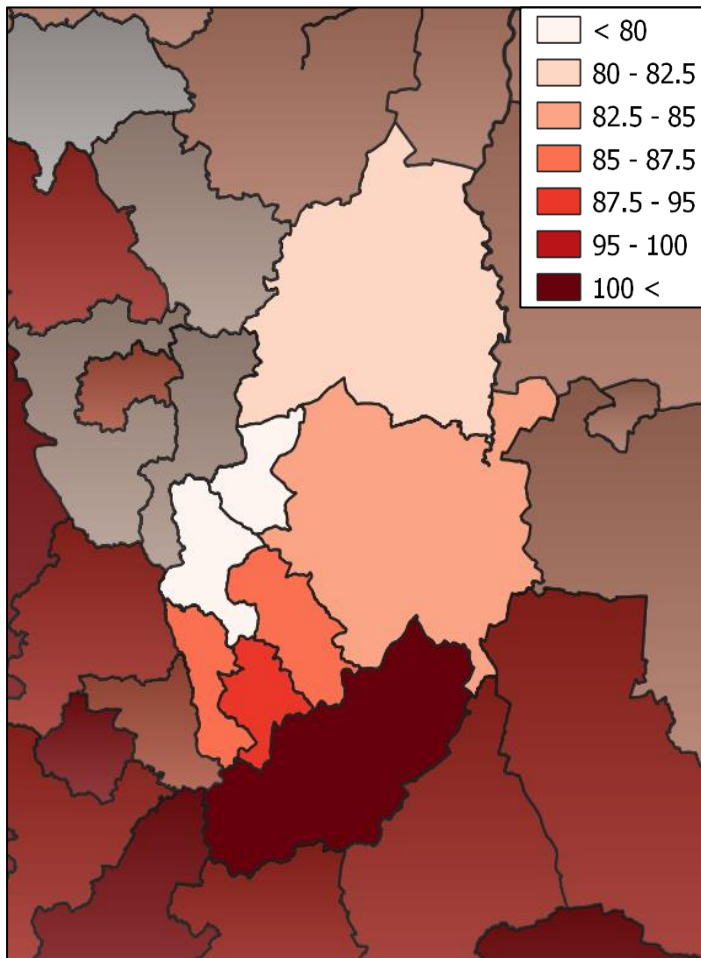
Table 2 – UKCI for Constituent Local Authority Districts of Nottinghamshire

| Nottinghamshire | | | |
|-----------------|-------------------|-----------|--------------------|
| Rank | LA Area | UKCI 2019 | Rank 2019 (of 370) |
| 1 | Rushcliffe | 101.0 | 116 |
| 2 | Nottingham | 89.7 | 226 |
| 3 | Broxtowe | 87.3 | 259 |
| 4 | Gedling | 85.4 | 277 |
| 5 | Newark & Sherwood | 83.5 | 300 |
| 6 | Bassetlaw | 82.4 | 321 |
| 7 | Ashfield | 78.1 | 363 |
| 8 | Mansfield | 77.6 | 365 |

Notes: Values are based on those presented in the UKCI 2019 report but updated with recent data releases.

With the exception of Rushcliffe all localities in Nottinghamshire display competitiveness below the UK average (UKCI = 100), this is to be expected with London and the South East dominating the upper ranks of the UKCI. However, within Nottinghamshire itself a similar pattern is also present. The more northern localities further from the main urban centre of Nottingham have lower levels of competitiveness. In particular, the districts of Ashfield and Mansfield who were historically reliant on the coal industry appear to have struggled to adjust to the loss of this industry (Beatty and Fothergill, 1996; Beatty et al., 2007).

Figure 3 – UKCI within Nottinghamshire 2019



As with the UK as a whole, the more rural peripheral locality of Bassetlaw also displays a relatively low level of competitiveness. One potential issue faced by Bassetlaw is that economically it is perhaps not fully within the orbit of any one major urban area.

Conclusions – structural challenges and opportunities

This report has used the UKCI 2019 to examine the competitiveness of Nottinghamshire. This provides an insight in terms of the position of Nottinghamshire prior to the Covid-19 crisis. Although, it will only be possible to fully understand the economic and social impact of Covid-19 as data becomes available in years to come, the UKCI provides an insight in terms of how Nottinghamshire was positioned to cope with such a crisis.

Unfortunately, the UKCI shows that Nottinghamshire as a whole is relatively uncompetitive and therefore likely to struggle relative to some other areas of Great Britain in terms of recovering from a shock of the magnitude that is expected from Covid-19, both in the short and the long-run. When compared to other areas of a similar nature, the multi-tier counties of England, Nottinghamshire is ranked 22nd (of 25 counties) on the overall UKCI. On each of the component indices within the UKCI

Nottinghamshire never ranks above 21st, suggesting it lacks the required resources (human capital, knowledge and entrepreneurial), is relatively poor at integrating these (to generate valuable outputs), and in creating positive outcomes for its population (well remunerated employment for many).

Nottinghamshire like many of the counties it is compared to here cannot be viewed in isolation. The major urban centre in the county, Nottingham, falls outside the control of the county council. Nottinghamshire and Nottingham although under different council control to one another have their fates deeply intertwined due to social and economic connections between the two. For example, although there is relatively little higher education provision in Nottinghamshire, Nottingham has two large higher education providers and generates a significant number of graduates each year, 13,375 in 2018/19[†], who if choosing to remain in Nottingham/Nottinghamshire often live in Nottinghamshire.

This relationship means that when the study examined the competitiveness of different local authority districts in Nottinghamshire two distinct patterns appear. In the south of the county the fates of the areas are largely tied up with that of Nottingham. In simple terms they supply many of the resources utilised in Nottingham's economy and the rewards flow back to these areas. This means that although areas such as Gedling are found to perform poorly in terms of the UKCI Output Index as the resources available are not utilised effectively in Gedling itself, instead they are supplied to Nottingham.

The big problem here is that Nottingham although improving its competitiveness over time has not had the same renaissance as that seen for cities such as Manchester and Leeds. For localities such as Rushcliffe, Broxtowe and Gedling two overall directions appear to need consideration. One is to retain and strengthen the symbiotic relationship with Nottingham, while the other would be to look to reduce this reliance on Nottingham.

Under the first in an ideal world responsibility for the two areas would be combined (Rossiter, 2017). This would potentially also address complexities associated with multi-level governance, which is associated with lower growth in some studies (Di Vita, 2018). Whether this was a combination of Nottingham and Nottinghamshire or Nottingham and the southern local authorities of Nottinghamshire would need consideration about where issues and concerns of the Nottinghamshire districts are different and differentiated. In the current arrangements Nottinghamshire would have to work closely with Nottingham City Council to ensure that resources in a post-Covid-19 world are available. For Nottinghamshire this may be more difficult than in the past where there is less control over secondary schooling provision than was the case prior to the introduction of academies (Eyles and Machin, 2019). Where schools can be encouraged to coordinate with employers in Nottingham to encourage local pupils to take subjects that will then open up higher education courses or apprenticeships, which are most appropriate for the Nottingham labour market, this will strengthen both Nottinghamshire and Nottingham's competitiveness. Pupils cannot be forced to take particular subjects, but scholarships and advice about what jobs are available may encourage some. Nottinghamshire's southern areas would also need to ensure that local amenities remained attractive to skilled workers, which means a careful balance of ensuring sufficient housing in available while not overbuilding and losing other amenities.

A more independent route would be for Nottinghamshire to consider reducing its reliance on Nottingham for employment. This would mean seeking to develop incubators, science parks or similar to act in a similar manner to Nottingham's BioCity to utilise existing skilled labour and other resources to create new development paths (Ehret et al., 2012; Smith et al., 2017). It may be of value to encourage the development of a specialist campus linked to this science park or hub for one of

[†] Data from HESA <https://www.hesa.ac.uk/data-and-analysis/students/outcomes>

Nottingham's Universities or another higher education institution. Even seeking to tap into different specialisms associated with the existing academic and industry labour resources residing in the local area compared to those sought by BioCity, there is a danger here is of competition with Nottingham and duplication of resources. However, it would enable localities such as Rushcliffe and Broxtowe to ensure the resources available were effectively employed locally.

The second pattern relates to the Nottinghamshire districts which are more rural and historically reliant on the coal industry in the north of the county. Here the resources available are limited, and given the relative lack of geographical proximity to Nottingham, it may be harder for areas such as these to retain resources. Investments to generate more skilled workers and incentives for business creation are therefore unlikely to be successful in isolation for these localities. One potential positive note for these areas is that if the Covid-19 crisis encourages more remote working geographical proximity may become less important. However, access to superfast and ultrafast broadband then does become more important. Although, incentives can be put in place to make investments in fibre optic cabling in more peripheral and rural areas, the market naturally sees these investments and more being made in urban areas where population density makes it more economical and commercially viable (Salemink et al., 2017). This means any public sector driven investment or incentives would likely to have to be on-going and regarded in a similar nature to subsidising public transport links.

Where no such behavioural changes occur, investments such as that by Nottingham Trent University in Mansfield to help retain higher achieving pupils are a positive move. According to Faggian and McCann (2009a) higher education investments are more likely to benefit the local economy when locally orientated and focused on skills development rather than innovation, so for localities such as Ashfield and Mansfield this might be the focus. Elsewhere in Nottinghamshire where skilled labour is more plentiful the focus of any investment in higher education might need to be orientated around creating innovation directly.

However, higher education investments to generate skilled employees will not be successful if appropriate employment is not available locally. Attracting employers with high potential to succeed in the aftermath of Covid-19 and create high value jobs will be challenging for northern Nottinghamshire localities when the UKCI Input Index suggests limited entrepreneurial and knowledge resources are available. If successful though this would reinforce the benefits of generating home grown graduates as even if they initially leave for other jobs, Sage et al. (2013) find that there is a good chance that they will return to the safety net of parental support within the first five years of graduating. On a smaller scale building on and specialising in existing strengths such as the support industries associated with extractive and manufacturing industries (Frenken et al., 2007), or industries requiring similar skills to those already available from legacy industries (Fitjar and Timmermans, 2017), to achieve related diversification may be more realistic. However, the UK old coal areas are far behind the use of approaches to support such diversification compared to coal areas of other European countries (Birch et al., 2010). For the more rural areas of Newark & Sherwood and Bassetlaw green investments such as in bio-energy will be of importance (Abdo and Ackrill, 2016). Local graduate retention is not always about availability of jobs, but awareness of those available locally, and for local businesses awareness of the benefits of employing local graduates (Ndiangui, 2020). Therefore any links between pupils/students and local businesses will be beneficial in this regard including placements and consulting projects (Piterou and Birch, 2014; Savoie et al., 2018). Business incubators linked to the higher education institutions would provide another employment option for those entrepreneurial skilled local graduates wishing to remain within the parental safety net (Scott, 2001;

Ndiangui, 2020). Appropriate and flexible (potentially virtual) arrangements may also allow academic entrepreneurs to engage with local industry in a successful manner (McAdam et al., 2016).

Economic Impacts of the Pandemic and Prospects for Recovery

This section uses the latest Decision Maker Panel (DMP) data drawn from the publicly available data released by the Bank of England to highlight the economic risks to the Nottinghamshire economy and its constituent parts as they plan for recovery.

The DMP is a monthly survey of Chief Financial Officers from small, medium and large UK businesses that is used to monitor developments in the economy and to track businesses' views. With over 8,600 executives from UK SMEs and large companies from a broad range of industries participating in the study, the panel is designed to be representative of the UK business population, excluding a small number of sectors. Our application of the DMP at regional and local scale forms one of the only sources of real-time, local and forward-looking datasets in the UK, providing a strong evidence base that can be used to underpin recovery strategies.

The analysis shows the expected sectoral impact of the crisis and uses this to estimate employment, sales and investment growth in Nottinghamshire. In doing so, the analysis provides a real-time and forward-looking view of the economic impact of the pandemic.

Whilst forward-looking data are used to develop projections and possible scenarios, readers are cautioned against treating these as a 'forecast'.

Key findings

- Expected falls in economic activity differ across sectors. This could mean large scale closures of businesses, particularly in the Accommodation & Food and Wholesale & Retail sectors.
- Businesses in the Accommodation & Food sector expect sales in 2020 Q2 to have been 60% lower than otherwise. By 2021 Q1 sales are expected to be 20% below 'normal levels' and a recovery to pre-pandemic levels is not expected in 2022.
- Immediate and severe falls in employment growth are expected in the Accommodation & Food sector. Employment is likely to continue declining until 2021 Q1 in other sectors.
- Investment is expected to experience the biggest decline during the crisis and to remain below normal levels well into 2022.
- Nottinghamshire is broadly in line with the national average but this conceals disparities across the local authorities.
- The hardest-hit local authorities are likely to be Newark & Sherwood and Mansfield.
- Structural challenges are not accounted for in the analysis and may exacerbate the impact of the crisis on some local authorities.

Sectoral impact

The DMP compiles a broad set of data from surveys with business executives. This analysis focusses on survey data of the expected impacts of Covid-19 on employment, investment and sales growth. Surveys are published at the beginning of each month with the underlying data gathered the month before. Our analysis uses the latest available data, published in December, which consists of responses gathered during November. As such, the latest available data captures the effects of the second lockdown implemented on 4th November. Data are based on responses to the question: "Relative to what would have otherwise happened, what is your best estimate for the impact of the spread of coronavirus (Covid-19) on the sales/employment/capital expenditure of your business in 2020 Q4, 2021 Q1, 2021 Q2 and 2022+?"

Figures 1, 2 and 3 show expectations across the key indicators broken down by sector. The three sectors illustrated in this analysis are chosen because they represent the most affected sectors in Nottinghamshire and employ relatively large proportions of the resident population. The full dataset with all sectors is included in Table A of the appendix.

The section of the chart preceding the forecast period gives an indication of where the economy might currently be, whereas the shaded area is forward looking. Both parts of the charts represent expectations of business executives and are not actual changes.

Figure 1. Sales growth by sector

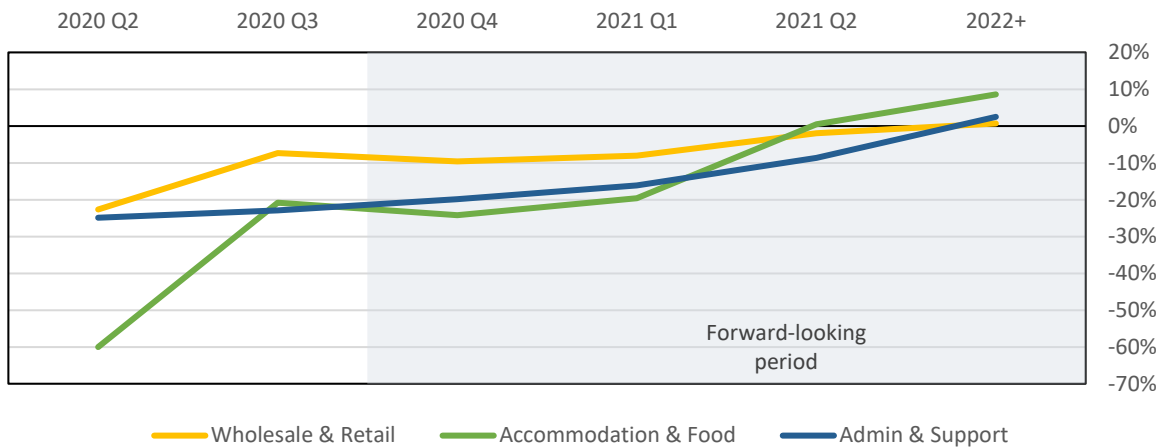


Figure 2. Employment growth by sector

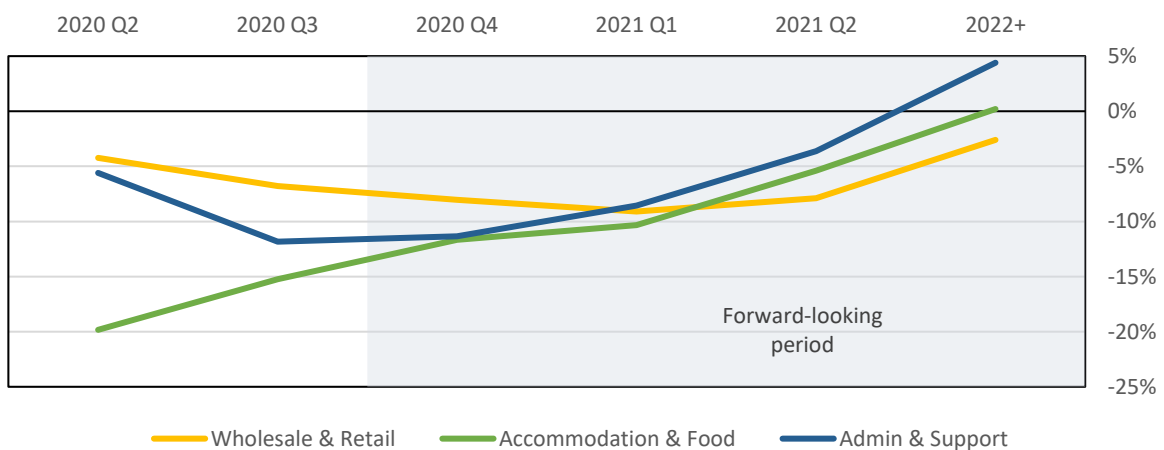
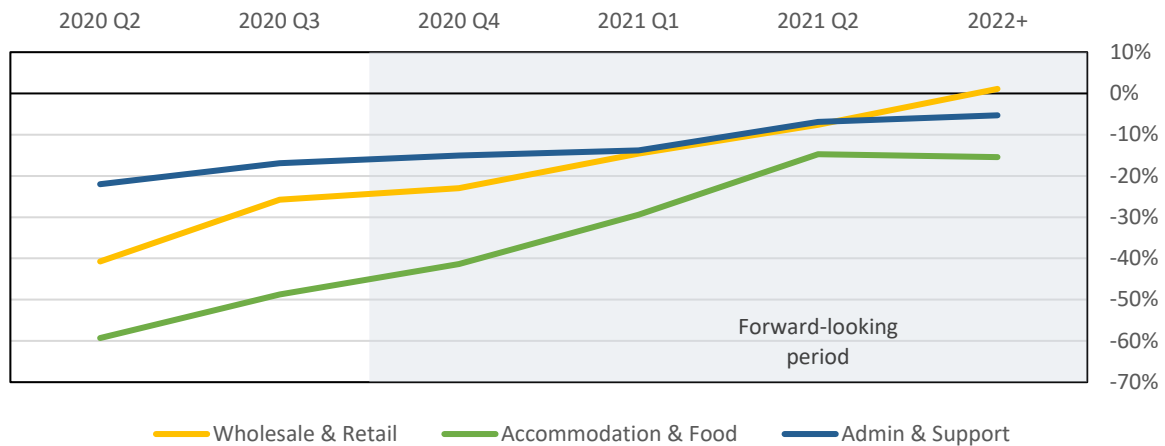


Figure 3. Investment growth by sector



Accommodation & Food has been one of the hardest hit sectors and this is evident across all indicators. The sector shows an estimated 60% lower sales growth in 2020 Q2. Even with government support it should be expected that such losses can lead to large scale business closures. The volatility in this sector likely reflects changing lockdown restrictions but the longer-term outlook shows a strong recovery relative to other sectors.

Sales growth in Wholesale & Retail and Admin & Support is expected to have declined by over 20% at the onset of the crisis. Although Wholesale & Retail is expected to be better performing in 2021, both sectors expect a slow recovery rate.

Employment growth in Accommodation & Food was expected to be 20% lower than otherwise in Q2 of 2020. A gradual improvement towards pre-pandemic levels is expected at some point in 2022. Employment growth in Wholesale & Retail is expected to continue declining until 2021 Q1, after which, it is expected to experience marginal improvements. The Admin & Support sector expects employment growth to be lowest in 2020 Q4 before recovering at a faster pace than the other two sectors.

Employment growth in the Wholesale & Retail and Admin & Support sectors both follow a U-shaped profile. This indicates a lag in expected employment relative to the Accommodation & Food sector. In other words, the latter responded to the crisis with an immediate and severe reduction in employment, whereas the other two sectors demonstrate a more gradual approach.

This tendency is likely to be a function of the relative impact of the crisis on sales but may also reflect the relative skills specialisation in these sectors. The data in Figure 2, implies that many actual redundancies to date are likely to be in low-skilled jobs but more redundancies could be expected in sectors with higher levels of specialisation as the crisis continues.

As illustrated in Figure 3, investment growth in the Accommodation & Food sector is expected to have declined by half in the first two quarters of the pandemic. Although the sector expects investment growth to increase rapidly thereafter, it will remain at approximately -16% well into 2022 – marking a long-term change in the investment behaviour of businesses in this sector.

Investment growth in the Wholesale & Retail sector was expected to have been 40% lower than otherwise in the 2020 Q2. Investment recovery in this sector is gradual and expected to return to pre-pandemic levels in 2022. Admin & Support is expected to have declined the least at 22%, but recovery rates are expected to be slower in this sector than in others.

The sectoral impacts of the pandemic show considerable variation both for expected sales revenue and for longer-term business decisions such as employment and investment. In turn, this has major implications at the spatial level where the recovery of each local authority will follow the profiles of its primary sectors more closely.

Local analysis

Using the sectoral data from the DMP and the sectoral composition of each local authority we estimate the impact of the crisis on local employment, sales and investment in Nottinghamshire.

The blue line in Figures 4-5 shows the estimated impacts of the three indicators in Nottinghamshire. Whereas the shaded areas illustrate the estimated impact on the most and least affected local authorities. This provides an indication of the disparities between local authorities in the area.

On average, sales, employment and investment growth in Nottinghamshire does not differ notably from the D2N2 or national averages (the comparison with D2N2 and the national average is provided in Table B of the appendix). Nottinghamshire shows a slightly smaller sales and employment decline 2021 Q1 but a slightly lower improvement in 2022+ relative to the national average. The exact opposite is true in terms of investment.

At the beginning of lockdown, sales and investment growth were expected to be about one third lower than they otherwise would have been. Both indicators show a sharp increase but then follow a relatively flat return to normal levels. Sales growth is expected to reach normal levels by 2022 whereas investment growth is expected to be 3% below potential well over a year from now.

Employment growth was expected to be -6.4% lower than otherwise in the second quarter and then expected to decline even further to -7.8% in the third quarter. Employment is a lagging indicator and is expected to remain relatively flat until 2021 Q2. The forward-looking period shows modest improvements in employment growth until 2021 Q2, but it is not expected to return to pre-lockdown levels within the forecast horizon.

There is little variance in sales growth within Nottinghamshire with a maximum of 3.3 percentage point difference between the best (Ashfield) and the worst (Newark & Sherwood) performing local authorities in 2020 Q2. Some variance remains well into 2022 with a 1.6 percentage point difference between the best (Rushcliffe) and the worst (Bassetlaw) performing local authorities.

Employment growth shows greater relative differences between local authorities until they converge around 2021 Q2. Overall, Newark & Sherwood, Mansfield and Bassetlaw are the most affected local authority in terms of employment. Rushcliffe, Broxtowe and Ashfield are the least affected based on this analysis.

Figure 4. Sales growth and variance in Nottinghamshire

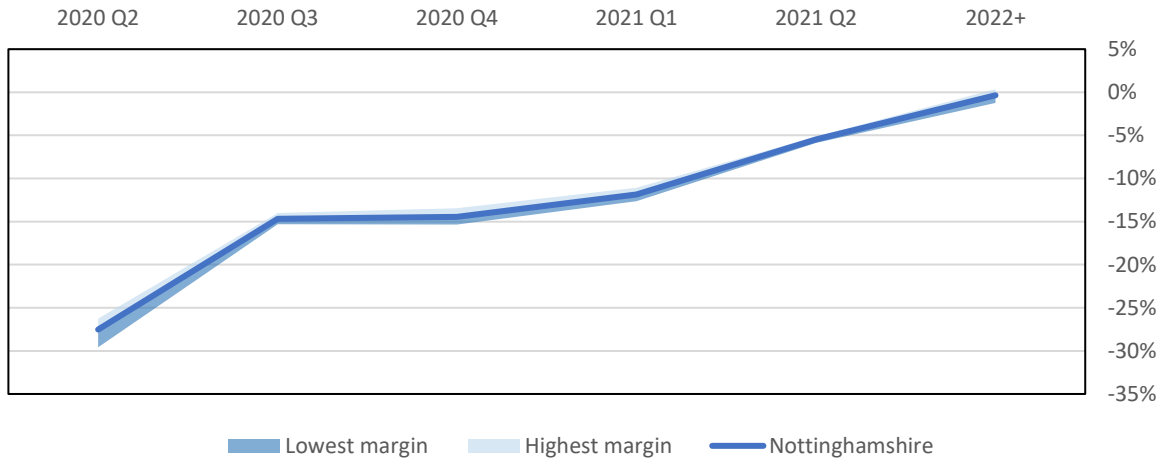


Figure 5. Employment growth and variance in Nottinghamshire

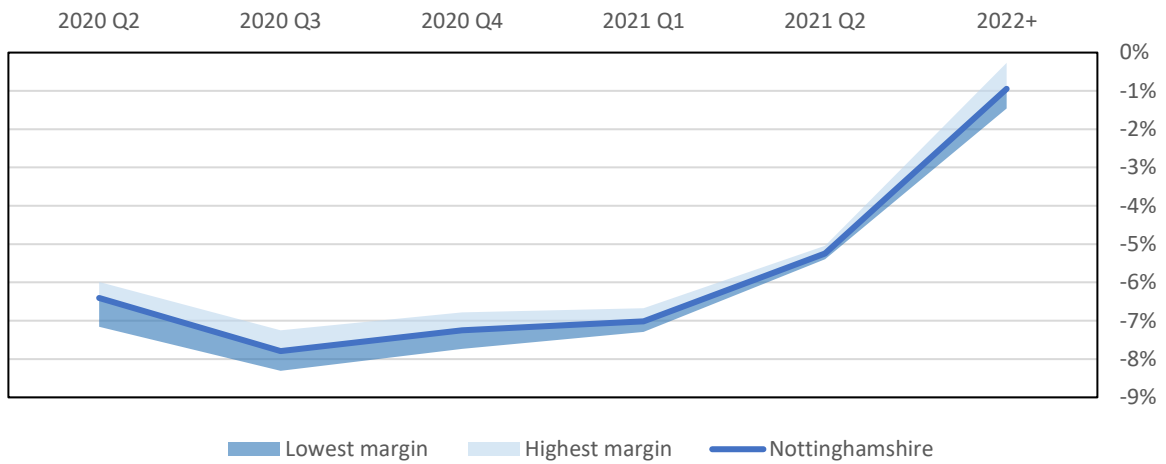
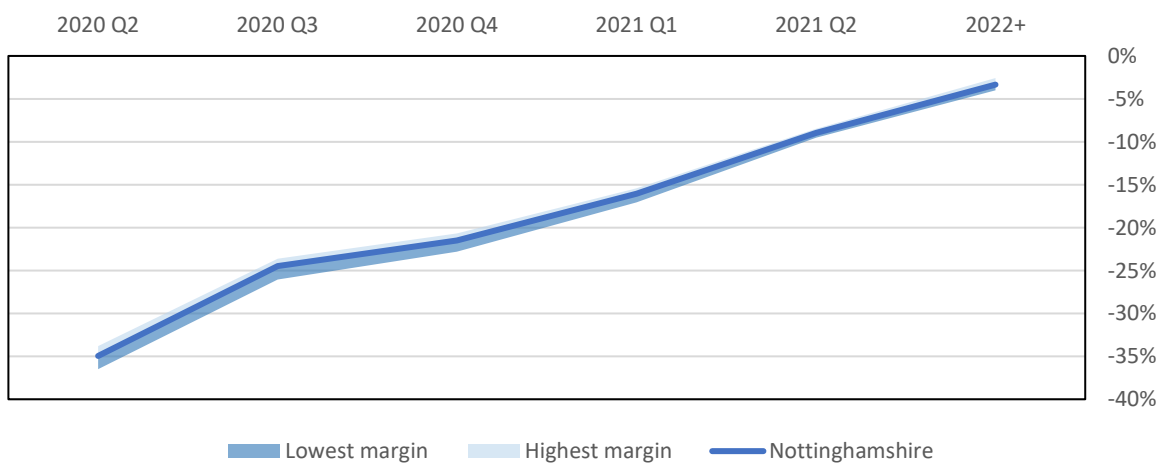


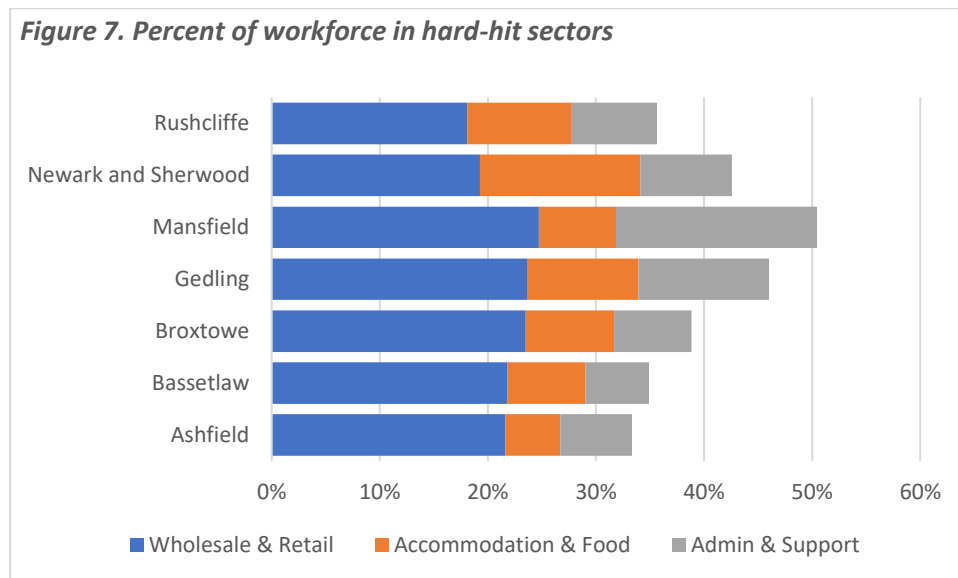
Figure 6. Investment growth and variance in Nottinghamshire



The variance in investment growth across Nottinghamshire is relatively consistent up until 2021 Q2 with a maximum difference of 2.7 percentage points between Newark & Sherwood and Rushcliffe – the most and least affected local authorities respectively.

Figure 7 provides further insight into the impact of the crisis at a spatial and sectoral level. The chart shows the percent of the private sector workforce[‡] employed in the two hardest-hit sectors: Wholesale & Retail and Accommodation & Food.

These two sectors account for 26.7% of private sector employment in Ashfield and 34.1% in Newark & Sherwood. Wholesale & Retail has the greatest impact across the whole of Nottinghamshire, followed by Accommodation & Food. Ashfield’s reliance on sectors that have not been as affected according to the DMP, leads to a degree of apparent resilience to the crisis. Local authorities with a relatively even spread of employees across sectors will exhibit higher resilience to the crisis in this analysis.



Source: Authors’ calculations on the Business Register and Employment Survey (ONS, 2018).

The analysis shows that Nottinghamshire is likely to face persistently low employment levels and gradually improving sales and investment after 2020 Q4. All indicators remain below potential in the foreseeable future and a recovery is not expected before 2022.

Whilst the analysis shows areas like Ashfield performing relatively well compared to other parts of Nottinghamshire, it should be noted that this is based on sectoral composition only. Structural challenges inherent in each local authority are not factored into this analysis and may well create additional barriers to local recovery rates and multiply the absolute impact of the crisis on local businesses and employment. Nevertheless, the analysis highlights the sectoral risk created by the current crisis and the likely resilience of each local authority based on this.

Some parts of Nottinghamshire have a particular reliance on some of the most affected sectors, such as Accommodation & Food and Wholesale & Retail. This will invariably create higher rates of

[‡] Data exclude public sector employment.

business closures and redundancies in those local authorities. Low-skill and low-pay individuals within these local authorities may struggle to find work in more robust industries and this has the potential to create structural unemployment. Those local authorities that rely more on this type of labour will likely experience a slower recovery than other parts of the country. The introduction of additional (variable) local restrictions on activity could exacerbate these differences. This makes the case for spatially targeted support stronger.

Qualitative business intelligence

This section synthesises a range of business intelligence collected by the Midlands Engine Economic Observatory (MEEEO) and published in their Economic Impacts of Covid-19 Monitoring Reports (now produced monthly). These reports are all available here: <https://www.midlandsenine.org/our-programmes/observatory/supporting-data-and-research/>.

While the Covid-19 induced recession of 2020 has been unprecedented in many ways – not the least of them being the manner in which Government has had to purposively shut down/restrict economic activity in order to control a public health crisis – some aspects of the business impact have been familiar and resemble previous recessions. Initial impacts saw a precipitous decline in sales for many businesses that soon resulted in cashflow problems. As these problems became acute for many businesses two things happened. First some started to reduce head count in order to control costs. Second businesses started to use any cash reserves that they had to ‘keep the lights on’. As we moved into the summer, evidence from sources such as the ONS Business Impacts of Covid Survey suggested that many firms had exhausted any cash reserves they possessed, and evidence started to grow of increasing business failures.

It is clear that the unprecedented scale of Government support through a raft of business and employment support measures including the Job Retention Scheme (Furlough), deferred taxation and a variety of grant and loan schemes have done a great deal to dampen and moderate the severity of impacts on business and therefore employment. However, there have been significant gaps in the coverage of Government support packages – such as for the recently self-employed, the precariously employed (e.g. zero hours contracts). We have also seen the fortunes of businesses in different industry sectors varying widely. Sectors at particular risk have been those such as tourism, hospitality and entertainment that are characterised by social consumption. Many firms in sectors like these have faced particular challenges in implementing social distancing requirements or have been completely unable to operate due to restrictions associated with lockdowns or other ‘tiered’ restrictions. Sectoral variations of this kind tend to result in spatial variation due to compositional differences between local economies as was evidenced in the preceding analysis of the DMP.

Some of this sectoral and spatial variation was probably predictable – once the implications of business operation in a socially distanced world became clear – others have been completely unexpected. The boom in bike sales during the first national lockdown was perhaps one of the less predictable examples of sectoral asymmetry. But even within apparently related sectors, the fortunes of firms have sometimes varied widely. In farming, egg producers did well from the surge in home baking while poultry meat producers supplying the catering trade struggled. The ability to sell direct to the public has been a source of resilience for some. As indeed has been the ability to pivot towards or scale-up online sales direct to consumers.

Looking forward, the following additional concerns have been cited by businesses and reported by the MEEEO:

- Concerns remain about the operation and coverage of Government business support initiatives and particularly the situation of those businesses and individuals who, for a variety of reasons, appear to be ‘falling through the cracks’. Similar concerns are now being raised in relation to the application of the ‘Kick Start’ scheme to small businesses likely to recruit fewer than 30 young workers.

- Evidence is growing of the need for both sectorally and spatially targeted interventions in support of business and employment across the Midlands.
- The Furlough scheme has been successful in reducing redundancies to date, but evidence is growing from a number of sources that firms will move to redundancies on a significant scale;
- It is a major concern that manufacturing sectors identified as amongst the Region's strongest performers in advance of the Pandemic – such as automotive and aerospace – are now amongst the most threatened;
- Apparent inconsistencies in the handling of local lockdowns across the country are now being cited as problematic for businesses operating from multiple sites across the country – even in the wake of implementing the recent tiered restrictions.
- Continuing uncertainty over future trading relationships with the EU after the end of the Brexit is being seen as a problem for many employers in manufacturing and other export active sectors.

Conclusions and Recommendations

Responding to the exigencies of the moment without losing sight of the long-term structural challenges of Nottinghamshire will help ensure longer-term resilience. The suggested policy implications below are not exhaustive. They are intended to illustrate some of the ways in which it may be possible to mitigate the effects evidenced in the data presented in this paper at the same time as responding to long term structural challenges.

Long term structural challenges

The UK Competitiveness Index (UKCI) provides a measure capturing current and future economic success of localities across the UK. The UKCI is based on three sub-indices that capture different theoretical perspectives on competitiveness. These are process competitiveness that looks at the ability of the locality to gain market share and convert this into higher standards of living for its population, and outcome competitiveness which looks at the extent that localities have achieved this.

Competitiveness is not evenly distributed across Great Britain. London and the South East pull the UK average up considerably, so a majority of counties and unitary authorities are below the UK average. Nottinghamshire has a level of competitiveness below the UK average (UKCI 86.7), and is ranked 22nd of the 25 multi-level county council areas in England. This suggests that overall it is less well placed to attract knowledge intensive firms and provide a high standard of living for its population as it seeks to recover from the Covid-19 crisis.

Although Nottinghamshire performs moderately on all the sub-indices of the UKCI it is the UKCI Outcome Index where Nottinghamshire ranks last of all the English counties. This shows that Nottinghamshire faces particular challenges in converting the resources available in the county into a high level of living standards for its population.

Nottinghamshire as a whole is likely to struggle to recover from the shock from Covid-19 due to a lack of resources that will allow adaptation and recombination to new opportunities as old development paths are closed off. Its low ability to generate desirable outcomes for the population may also make it harder to attract new resources to allow adaptation.

Investigation of competitiveness for the local authority districts within Nottinghamshire show the complexities faced in recovering from the current Covid-19 crisis. There are considerable differences in competitiveness across the county from Rushcliffe (UKCI 101) to Mansfield (UKCI 77.6). In general, there is an evident north-south division. For localities in the south of the county their competitiveness is strongly connected to that of Nottingham. There are major commuter patterns into the City for Gedling in particular. This is reflected in the sub-indices of the UKCI where Nottinghamshire districts' resources (UKCI Input Index) are combined in Nottingham (UKCI Output Index), but the benefits flow back to the Nottinghamshire districts (UKCI Outcome Index). This means that recovering from Covid-19 will need close collaboration with Nottingham given the intertwined destinies of areas in the south of the county at least.

Alternatively localities in the south of Nottinghamshire could look to provide the infrastructure to combine their resources more successfully within Nottinghamshire rather than Nottingham to take control of their own fate.

For the districts in the north of Nottinghamshire their current position is much weaker. There are arguments for connecting to Nottingham to a greater extent, particularly if working at distance becomes more entrenched and geographical proximity becomes less important. However, these districts are competing against those in the south of the county for resources.

The retention of home-grown talent and enterprise is important, but will be hard given the pull of Nottingham at a county level and London and the South East at a national level. Higher Educational provision and support for entrepreneurs will be beneficial, but Covid-19 may accelerate processes that have already eroded existing competitiveness.

Forecasts based on the UKCI suggest that Mansfield in particular is likely to face a falling GDP per capita in most scenarios. The forecasts indicate that due to their low competitiveness the districts of Nottinghamshire that currently have higher unemployment and lower pay will struggle most to adapt and disparities within the county are likely to continue to grow without considerable intervention.

Sectors, skills and qualifications

Sectors such as Accommodation & Food, Wholesale & Retail and Admin & Support account for a large proportion of the Nottinghamshire's private sector workforce and are also likely to experience some of the largest declines in employment.

The sectoral asymmetries of the crisis create risks of sector-specific long-term unemployment. Wholesale & Retail accounts for one fifth of the Nottinghamshire workforce and employment in this sector is not expected to return to pre-crisis levels within the forecast horizon. Whilst unemployment is expected to deteriorate further in 2021, the analysis highlights that the spatial distribution of unemployment could be concentrated in areas that already face structural challenges.

There are considerable barriers to cross-sectoral labour mobility, particularly in those sectors which are characterised by low or specialist qualifications. The spatial distribution of these sectors as well as the demographic and socioeconomic clustering of those likely to face redundancy creates further challenges for Nottinghamshire. For local authorities with a concentration of employment in these sectors – such as Newark & Sherwood – the risks of structural unemployment are greater.

Retraining and upskilling schemes are likely to mitigate some of these effects. Equally, it is important to note that supply side measures of this kind are unlikely to be sufficient in the context of ongoing weak demand for labour. Measures to directly stimulate job creation should also be considered.

Growth

Across Nottinghamshire, sales growth is estimated to have been 27.5% lower than otherwise in 2020 Q2 and to start approaching pre-pandemic levels by 2022 according to the data collected by DMP. The expected loss in sales revenue across the area is significant but varies by sector. Such revenue losses represent major stresses on smaller businesses and subsequent closures will create further declines in economic growth but will also lead to more redundancies. SMEs in Accommodation & Food and Wholesale & Retail are particularly vulnerable to these risks despite government support.

Whilst upskilling and reskilling the labour force will address pre-existing labour supply issues in the region, demand side interventions are also required in order to mitigate the risks of structural unemployment.

Maximising the use of government funding streams such as the Towns Fund and the Levelling Up Fund to support start-ups (including 'back into business' support) will help establish new innovative

firms and also retain the knowledge and experience of entrepreneurs whose businesses failed due to the pandemic. Such support should be considered in combination with skills based interventions and business incubation facilities that could help to provide a local focus for employment creation in some of the more challenged districts. This will be important if Nottinghamshire is to avoid further erosion to its entrepreneurial base.

Appendix

Table A. Expected impact of Covid-19 on sales/employment/capital expenditure, by sector (3-month averages[§] to Nov 2020)

| | Sales | | | | | | Employment | | | | | | Investment | | | | | |
|----------------------|---------|---------|---------|---------|---------|-------|------------|---------|---------|---------|---------|-------|------------|---------|---------|---------|---------|-------|
| | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ |
| Manufacturing | -27.3 | -13.0 | -10.8 | -9.0 | -6.0 | -1.6 | -5.7 | -6.2 | -5.7 | -5.2 | -4.1 | -1.9 | -35.4 | -25.6 | -24.0 | -17.8 | -8.4 | -2.4 |
| Other Production | -11.7 | -7.4 | -4.8 | -3.9 | -2.9 | -0.3 | -2.9 | -3.3 | -2.4 | -1.9 | -1.6 | -1.3 | -17.2 | -7.0 | -11.8 | -12.1 | -1.9 | 4.1 |
| Construction | -33.2 | -15.0 | -13.5 | -10.8 | -6.2 | -3.4 | -6.8 | -6.1 | -6.8 | -6.0 | -5.2 | -2.0 | -34.2 | -23.2 | -18.3 | -12.9 | -5.5 | -2.1 |
| Wholesale & Retail | -22.7 | -7.3 | -9.6 | -8.1 | -1.9 | 0.7 | -4.2 | -6.8 | -8.0 | -9.1 | -7.9 | -2.6 | -40.7 | -25.7 | -23.0 | -14.6 | -7.6 | 1.1 |
| Transport & Storage | -22.1 | -23.0 | -25.7 | -22.6 | -16.0 | -14.2 | -2.7 | -9.9 | -8.3 | -10.1 | -9.0 | -7.2 | -36.0 | -24.7 | -17.6 | -17.0 | -17.1 | 0.0 |
| Accommodation & Food | -60.0 | -20.8 | -24.2 | -19.6 | 0.5 | 8.6 | -19.8 | -15.2 | -11.7 | -10.3 | -5.4 | 0.2 | -59.3 | -48.7 | -41.3 | -29.4 | -14.7 | -15.4 |
| Info & Comms | -15.8 | -9.9 | -7.8 | -6.9 | -3.3 | 2.2 | -4.3 | -3.8 | -3.2 | -3.2 | -2.4 | 0.1 | -24.4 | -19.1 | -16.0 | -9.5 | -6.9 | -2.1 |
| Finance & Insurance | -22.1 | -10.9 | -13.3 | -9.0 | -5.7 | 6.3 | -6.4 | -3.5 | -6.4 | -3.5 | -2.6 | 3.9 | -18.1 | -7.8 | -12.1 | -10.2 | -6.5 | 0.6 |
| Real Estate | -16.0 | -12.3 | -11.7 | -12.2 | -5.1 | 0.9 | -2.2 | -7.1 | -2.8 | -2.7 | -2.3 | 1.4 | -37.1 | -13.2 | -13.4 | -11.0 | -12.3 | -1.6 |
| Prof & Scientific | -21.8 | -12.5 | -13.0 | -9.3 | -4.4 | 0.5 | -5.0 | -6.5 | -6.7 | -5.9 | -4.8 | -0.9 | -26.9 | -21.4 | -17.8 | -13.1 | -6.6 | -4.2 |
| Admin & Support | -24.9 | -22.9 | -19.9 | -16.1 | -8.7 | 2.5 | -5.6 | -11.8 | -11.3 | -8.6 | -3.6 | 4.4 | -22.0 | -16.9 | -15.1 | -13.8 | -6.9 | -5.3 |
| Human Health | -18.7 | -15.8 | -12.9 | -10.6 | -7.3 | -3.1 | -6.3 | -6.0 | -3.3 | -4.2 | -2.4 | 0.6 | -27.6 | -15.4 | -12.3 | -11.6 | -7.9 | -2.7 |
| Other services | -38.2 | -26.2 | -25.4 | -20.9 | -12.7 | -3.2 | -5.7 | -8.6 | -8.4 | -8.3 | -8.1 | -0.1 | -35.5 | -29.9 | -28.4 | -22.5 | -17.1 | -11.4 |

Source: Decision Maker Panel

[§] 2020 Q2 data are 3-month average to August, 2020 Q3 uses the 3-month average to October and 2022+ uses the November DMP only.

Table B. DMP by quarter and indicator – All local authorities (3-month average to Nov 2020)**

| Local authority | Sales | | | | Employment | | | | Investment | | | |
|-------------------------------|---------|---------|---------|-------|------------|---------|---------|-------|------------|---------|---------|-------|
| | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2022+ |
| DMP average (national) | -14.8 | -12.1 | -5.4 | 0.3 | -7.5 | -7.1 | -5.2 | -0.6 | -21.1 | -15.8 | -9.0 | -3.4 |
| D2N2 | -14.5 | -11.9 | -5.5 | -0.3 | -7.2 | -7.0 | -5.2 | -0.9 | -21.4 | -16.1 | -9.1 | -3.4 |
| Nottingham | -14.5 | -11.9 | -5.3 | 0.2 | -7.2 | -7.0 | -5.1 | -0.5 | -20.4 | -15.3 | -8.9 | -3.2 |
| Nottinghamshire | -14.4 | -11.9 | -5.5 | -0.3 | -7.3 | -7.0 | -5.2 | -0.9 | -21.5 | -16.1 | -9.0 | -3.3 |
| Ashfield | -13.4 | -11.1 | -5.6 | -1.0 | -6.8 | -6.7 | -5.1 | -1.2 | -20.7 | -15.4 | -8.5 | -2.6 |
| Bassetlaw | -14.4 | -11.9 | -5.9 | -1.2 | -7.0 | -7.0 | -5.4 | -1.5 | -21.4 | -16.1 | -9.3 | -2.8 |
| Broxtowe | -14.2 | -11.6 | -5.3 | -0.4 | -7.2 | -7.0 | -5.4 | -1.1 | -21.6 | -16.0 | -8.9 | -3.1 |
| Gedling | -14.6 | -12.0 | -5.3 | 0.0 | -7.5 | -7.2 | -5.2 | -0.8 | -21.7 | -16.2 | -8.8 | -3.4 |
| Mansfield | -14.8 | -12.1 | -5.6 | 0.2 | -7.7 | -7.3 | -5.2 | -0.3 | -20.8 | -15.7 | -8.7 | -3.4 |
| Newark and Sherwood | -15.3 | -12.6 | -5.3 | -0.1 | -7.6 | -7.3 | -5.3 | -1.0 | -22.8 | -17.0 | -9.5 | -4.0 |
| Rushcliffe | -14.4 | -11.7 | -5.1 | 0.4 | -7.0 | -6.7 | -5.0 | -0.6 | -21.3 | -15.7 | -8.9 | -4.0 |

Source: BRES, DMP and authors' calculations

** 2022+ uses data from the November DMP only.