Economic Research Council

Local economic impacts of COVID-19

Geography, impacts, resilience and recovery

Chris Thoung and Ben Gardiner

17 June 2020

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clarity from complexity

Cambridge Econometrics

- Founded in 1978 as a commercial spin-off from the University of Cambridge
- Initially to take forward the work of Professor Sir Richard Stone, Nobel Laureate in Economics
- Now an independent private consultancy
  - specialising in economic analysis for public policy
  - majority owned by the Cambridge Trust for New Thinking in Economics

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Overview

- Economics of COVID-19
- Local impacts: Not just a scaled-down national picture
- How to think about local impacts:
  1. Potential economic exposure
  2. Wider impacts
  3. Resilience and prospects for recovery

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Economics of COVID-19: Impacts

- Health: lockdown as deliberate action to reduce and avoid spread of the virus
- Economic consequences:
  - supply:
    - reduced labour and labour productivity e.g. from sickness, caring and changes in working conditions
    - potential knock-on effects through supply chains
  - demand: reductions in income, but also an inability to spend
- How long can this be sustained?
  - falling incomes
  - problems of cashflow and solvency
  - role for government
- Potential for persistent effects (scarring)

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Economics of COVID-19: Assessment

- It takes time to produce economic data
  - can be significant lags in official data
  - a problem in a crisis
- Some ability to track the crisis with other data
  - short-term indicators: financial markets
  - surveys: consumers, households, businesses, new ONS surveys
  - new/alternative data sources and experimental statistics including online data (e.g. jobs sites), passenger traffic etc
- But, otherwise, have to resort to:
  - historical experience: Spanish Flu, SARS, MERS
  - forecasts and scenario ('what if?') analysis

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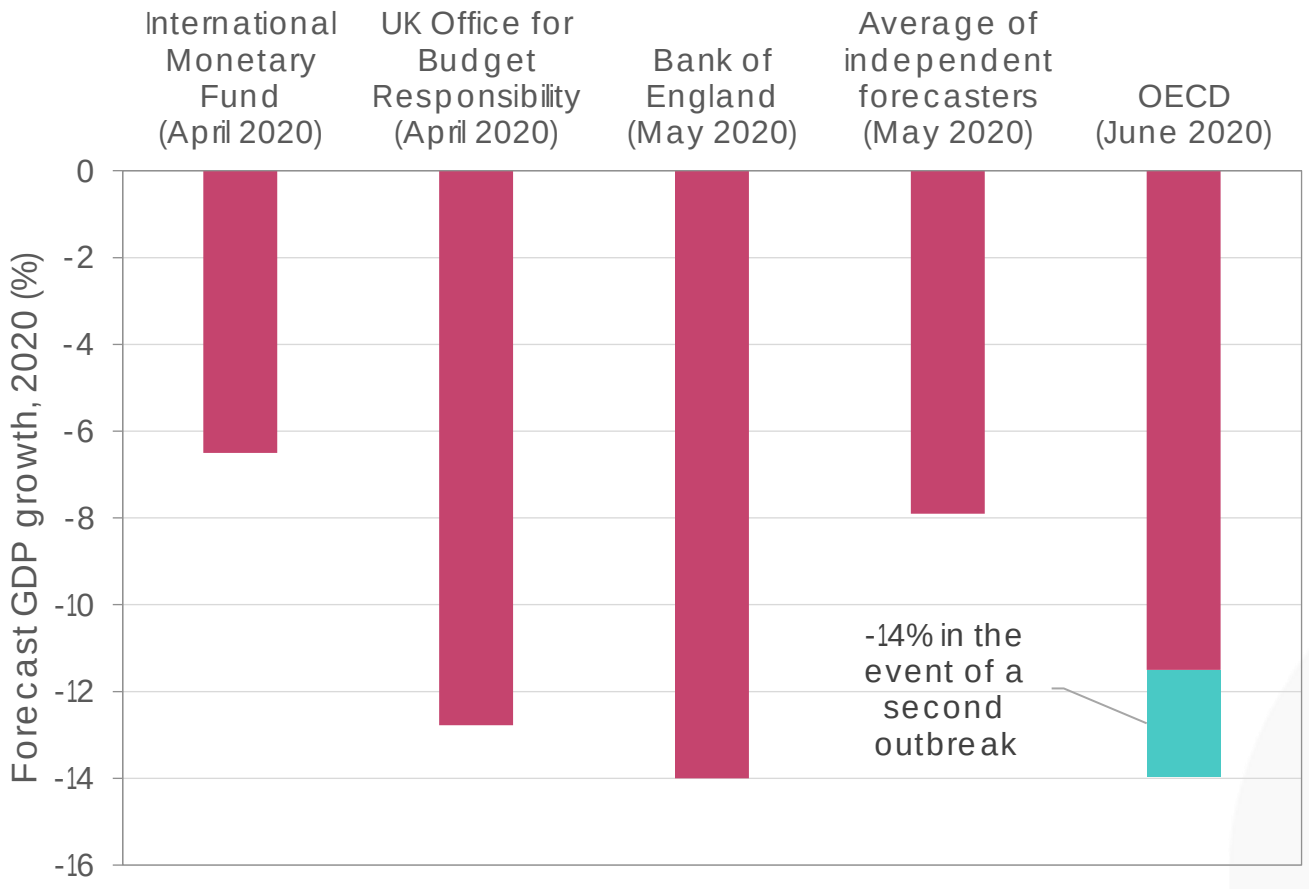
Economics of COVID-19: Forecasts



- Economic forecasts for the UK look increasingly pessimistic
- Forecasters are revising down their expectations for 2020:
  - earlier expectations of 1% GDP growth have flipped to -8% (and falling)
  - as of May, most pessimistic forecast is -13%
  - original unemployment forecasts of 4%, now rising to 7% or more

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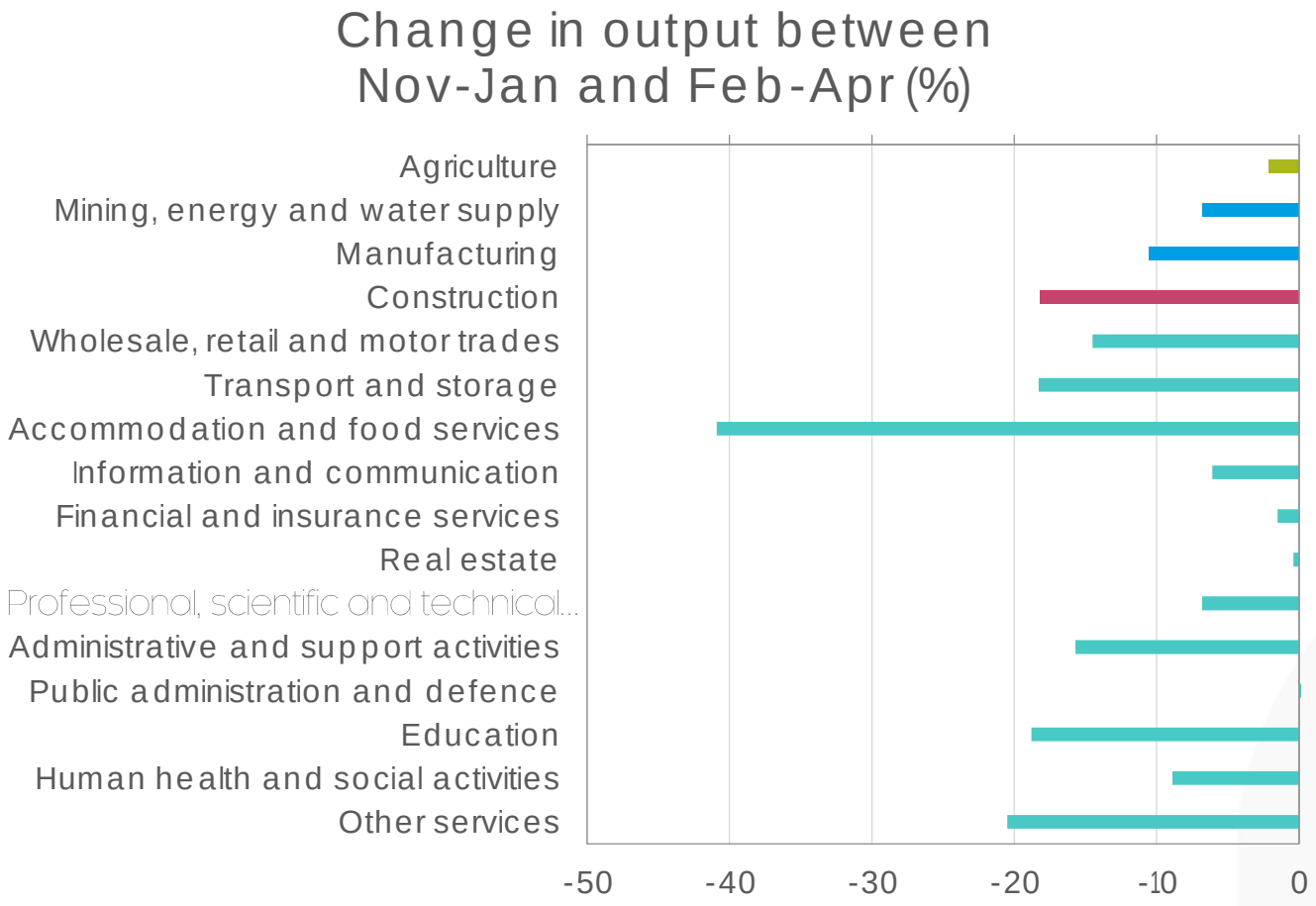
Source(s): International Monetary Fund *World Economic Outlook*, April 2020; Office for Budget Responsibility *Coronavirus Reference Scenario*; Bank of England *Monetary Policy Report*, May 2020; HM Treasury *Forecasts for the UK economy*, May 2020; OECD Economic Outlook, June 2020.

Economics of COVID-19: Emerging data



- Emerging economic data support the forecasts:
  - GDP is 10.4% lower over Feb-Apr compared with the previous three months
  - dominance of services in the UK economy: three-quarters of the fall
- Headline unemployment has not registered a change... yet
  - marked increase in the claimant count from 1.2m in March to 2.8m in May

Source(s): Office for National Statistics *GDP monthly estimate, April 2020; Labour market overview*, June 2020.

Local impacts: Not just a scaled-down national picture

- Why take at the national-sector perspective?
  - It's easier to start from this position
    - national-sector models are more numerous,
    - data are generally better and more available
    - e.g. OBR reference scenario (April 2020)
- Applying this to regions and local areas?
  - Seemingly seductive to simply push these estimates down to lower spatial levels to estimate effective regional and local effects
  - But there are risks in doing this…

Table 1.2: Output losses by sector in the 2020Q2

Sector	Effect on output relative to baseline
Agriculture	0
Mining, energy and water supply	-20
Manufacturing	-55
Construction	-70
Wholesale, retail and motor trades	-50
Transport and storage	-35
Accommodation and food services	-85
Information and communication	-45
Financial and insurance services	-5
Real estate	-20
Professional, scientific and technical activities	-40
Administrative and support activities	-40
Public administration and defence	-20
Education	-90
Human health and social activities	50
Other services	-60
Whole economy	**-35**

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Local impacts: Not just a scaled-down national picture Example

- Practical exercise to test the top-down findings of the top-down method
  - Look at the most recent (Great) recession (over the period 2008-09)
  - Take the national-sector growth rates for output and employment
  - Apply them to different spatial levels and check findings (actual vs expected)
- What do we observe or learn?
  - The predicted results are quite narrowly bunched
  - The lower the spatial scale, the less accurate is the prediction
  - Predicting employment outcomes is harder than that for output
  - Recessions are times of disruption and are inherently unpredictable, recoveries are easier to track

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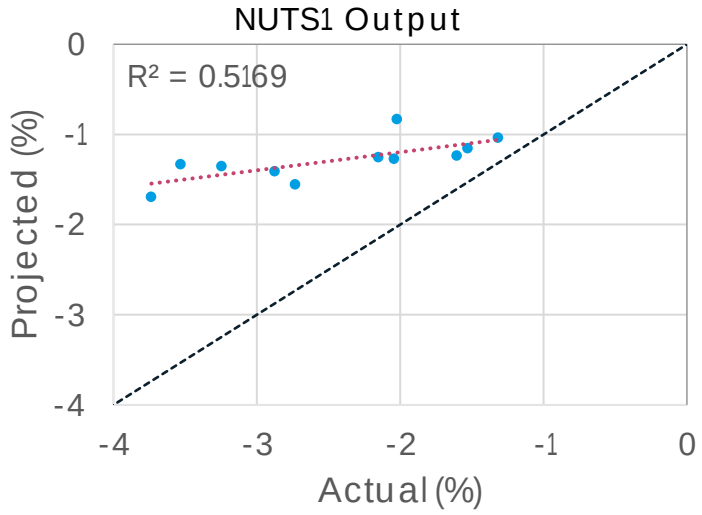
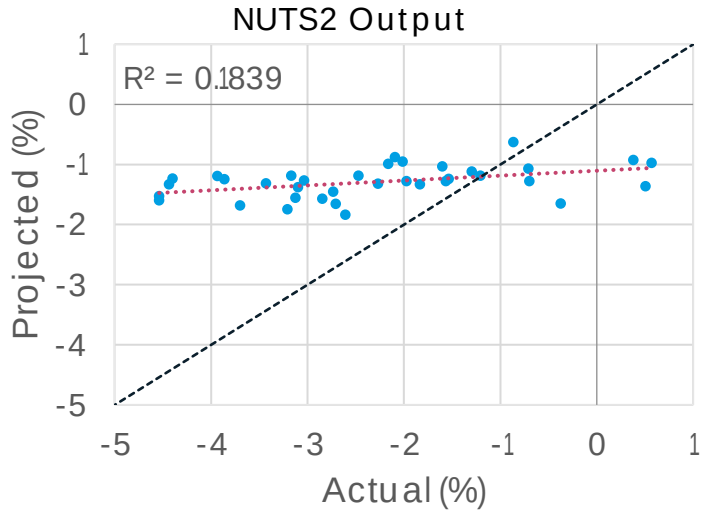
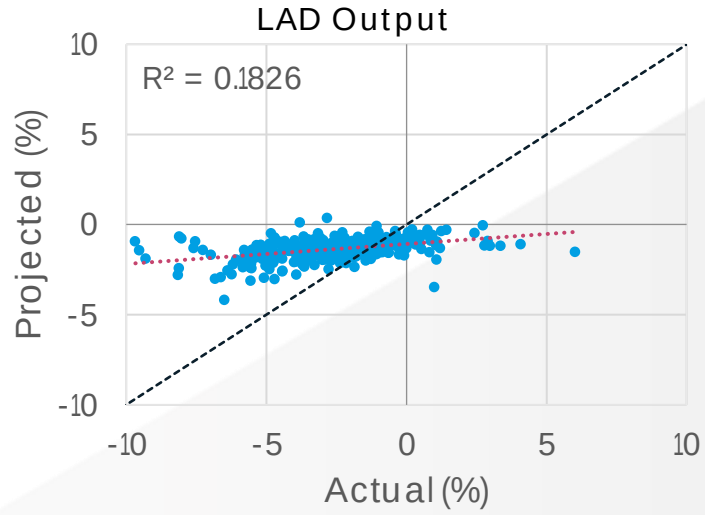
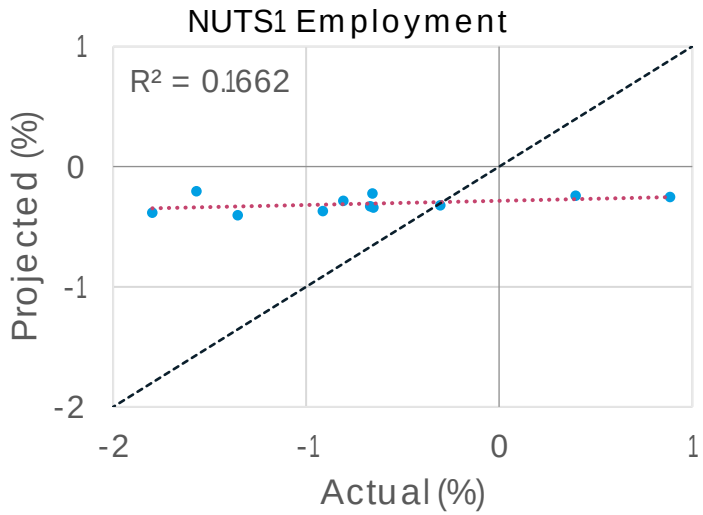
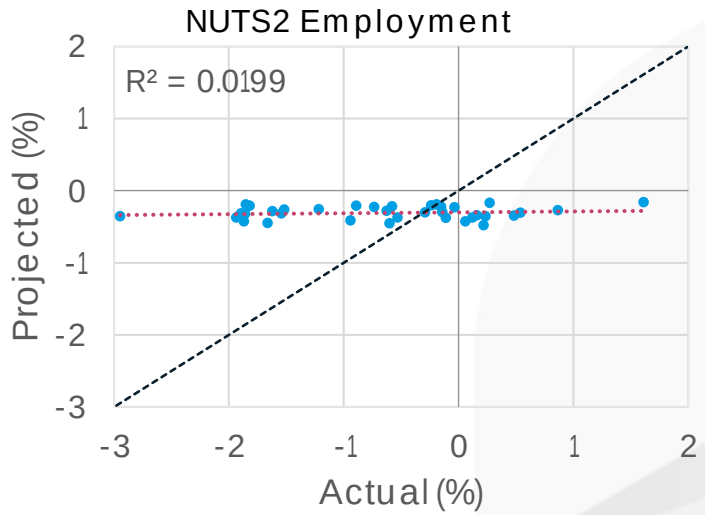
Local impacts: Not just a scaled-down national picture
Output and employment impacts, 2008-09

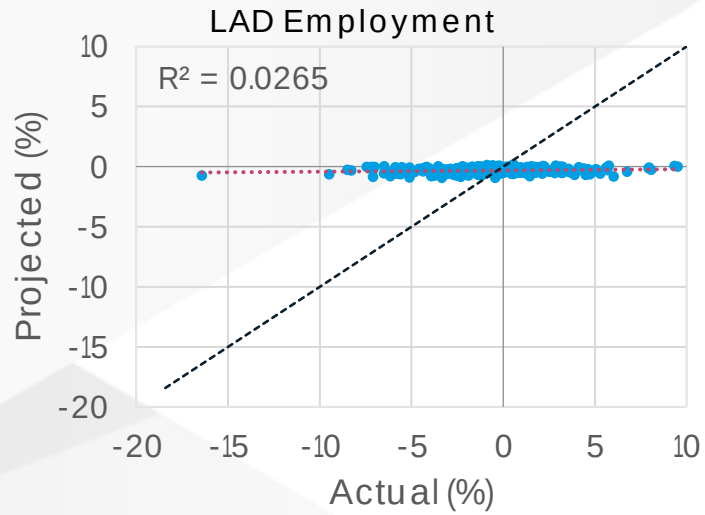












Potential economic exposure

- Economic vulnerability to lockdown (imposed reductions in economic activity).
  - Which industries are most subject to enforced reductions in activity?
  - How many jobs are in these industries?
  - In these industries, what activities (occupations) have the most/least scope to work differently?
- What does the economic composition of an area tell us?
  1. Concentrations of industries we expect to be vulnerable
  2. Occupation-level analysis of who might be able to keep working in a lockdown
  3. Comparisons with emerging data

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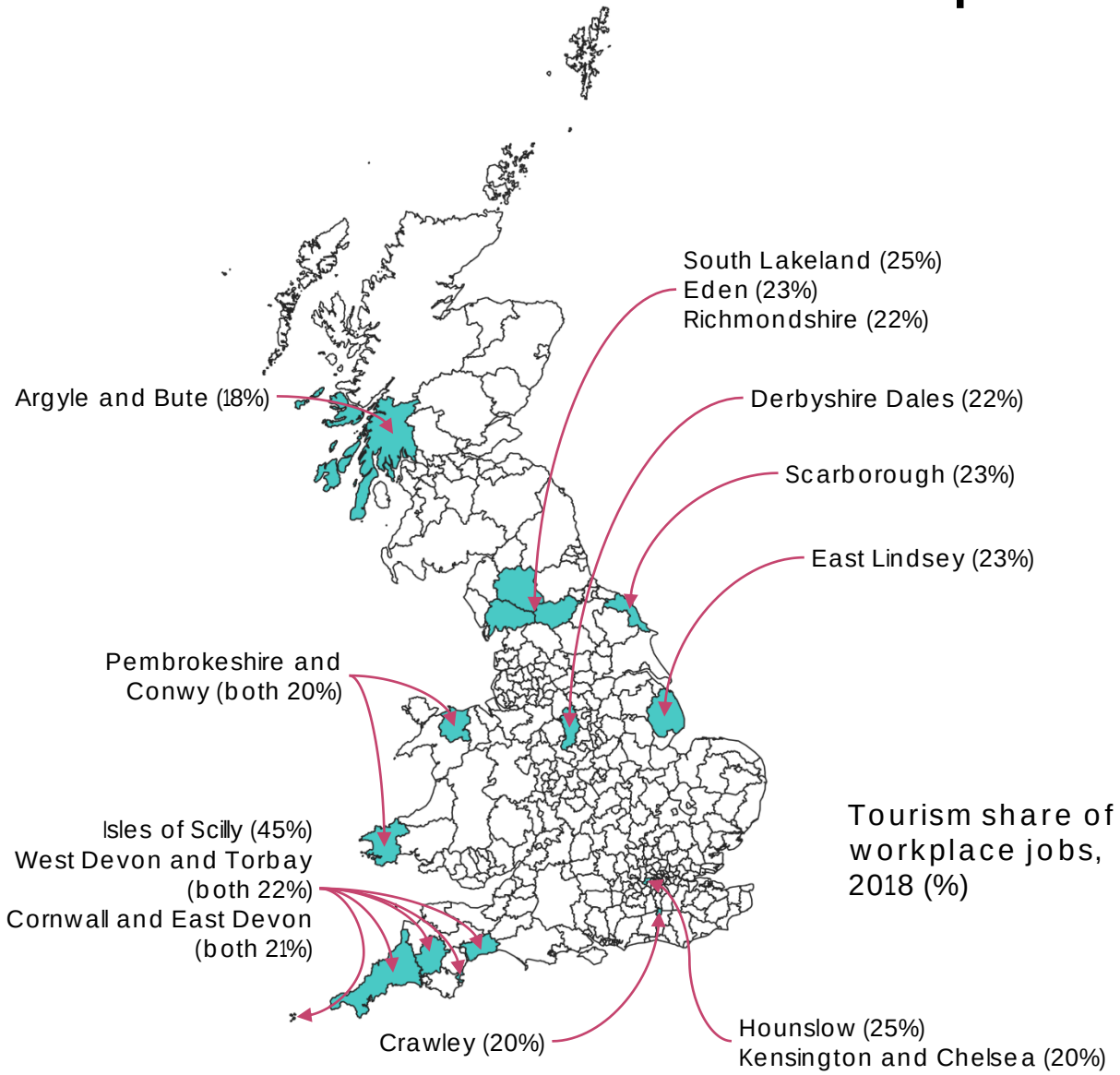
Potential economic exposure: Tourism and leisure



- In 16 areas, tourism and leisure accounts for at least one in five jobs.
  - In most areas, the share is between 10% and 20%.
- In most cases, this is because of jobs in hotels, restaurants and catering (with seasonal implications coming out of lockdown).
  - Areas with airports (Crawley and Hounslow) are also vulnerable.

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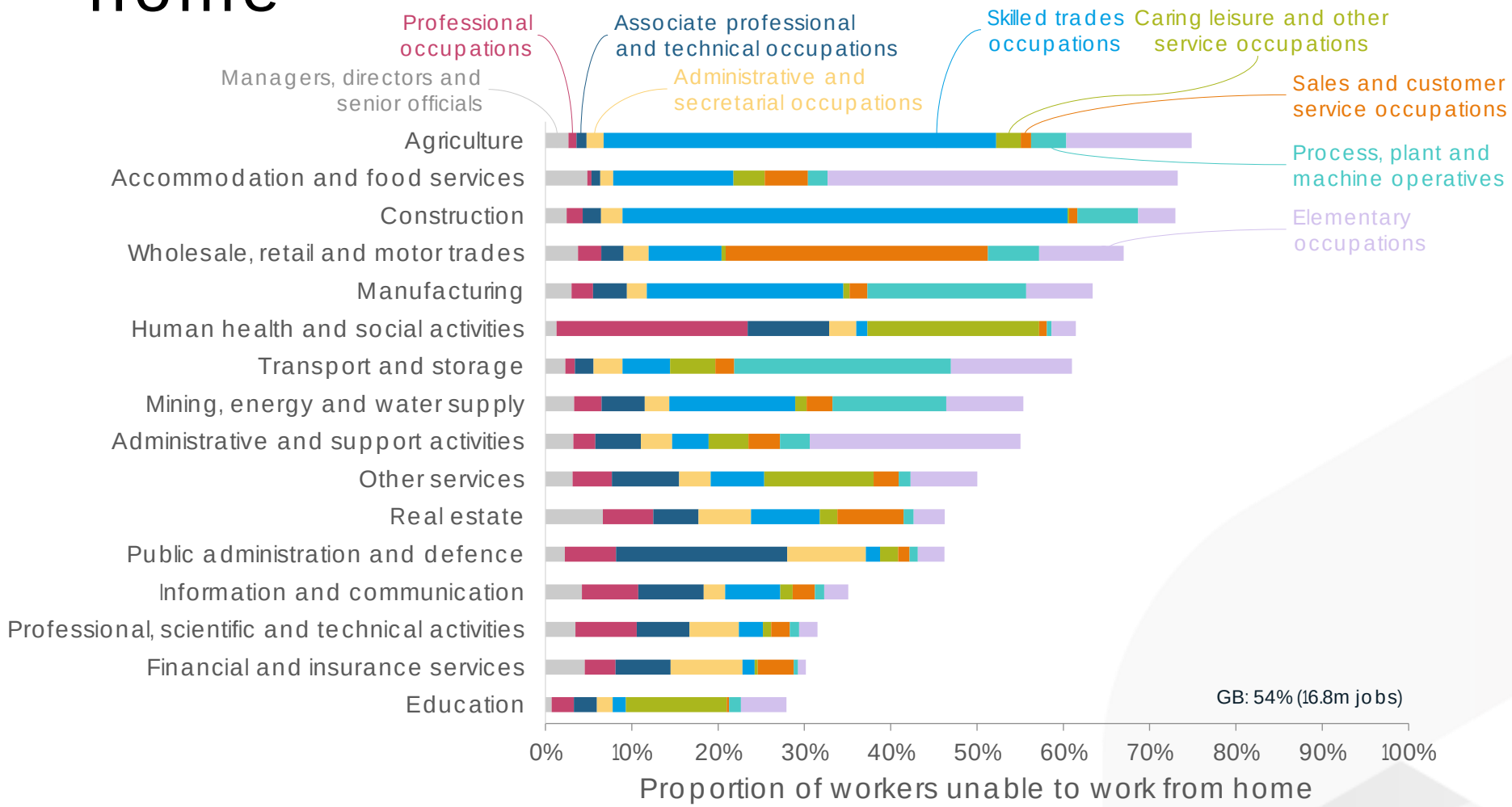
Source(s): Cambridge Econometrics local authority database, March 2020.

Potential economic exposure: Who can't work from home



- Most affected by a lockdown:
  - retail
  - hospitality (accommodation and food services)
  - manufacturing
  - construction
- Few agriculture workers can work from home but they may be more able to social distance.

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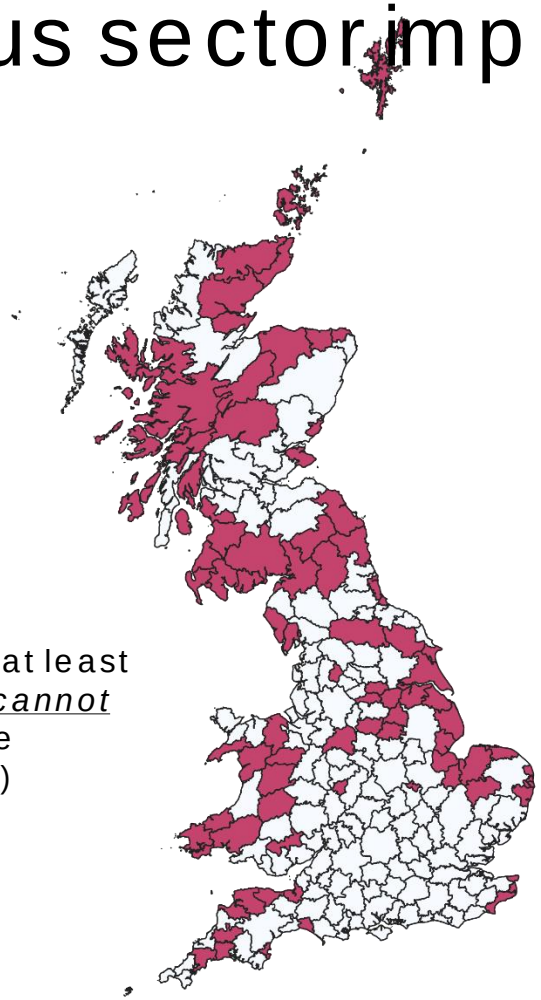
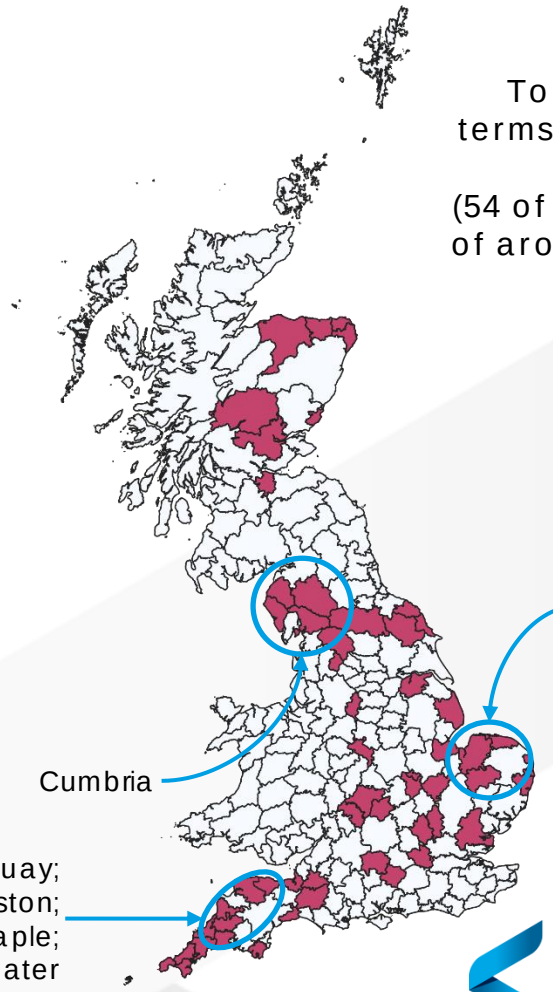
Source(s): Cambridge Econometrics analysis of Dingel and Neiman (2020); ONS (2019) Business Register and Employment Survey data; and Cambridge Econometrics local authority database, March 2020.

Potential economic exposure: Working from home versus sector impacts



TTWAs in which at least 60% of people *cannot* work from home (82 of 218 areas)

- Coastal areas in England, parts of Wales and Scotland have more limited scope to work from home (left).
- There is less of a regional pattern to the OBR-based impacts(right) but areas in the north, south west and east of England look more exposed.



Top 25% of TTWAs in terms of OBR-assumed output losses (54 of 218 areas; impact of around 38% or more)

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Source(s): OBR Coronavirus Reference Scenario (April 2020); and Cambridge Econometrics analysis of US Department of Labor, Employment and Training Administration O*NET data; and Cambridge Econometrics local authority database, March 2020.

Emerging data on local impacts

- Local-level data are among the least timely economic statistics
- But information is starting to come out including, from HMRC, about the:
  - Coronavirus Job Retention Scheme: furloughing
  - Self-Employment Income Support Scheme: self-employment support
- Furloughing:
  - over a quarter of the workforce are thought to have been covered for at least some time
  - no clear regional patterns but some suggestion that some impacts line up with some of the tourism-heavy areas e.g. in Cumbria and the South West
  - places like Oxford and Cambridge have seen relatively lower take-up
- Self-employment:
  - estimated take-up of the scheme is 70%
  - much less regional variation: a problem for all?

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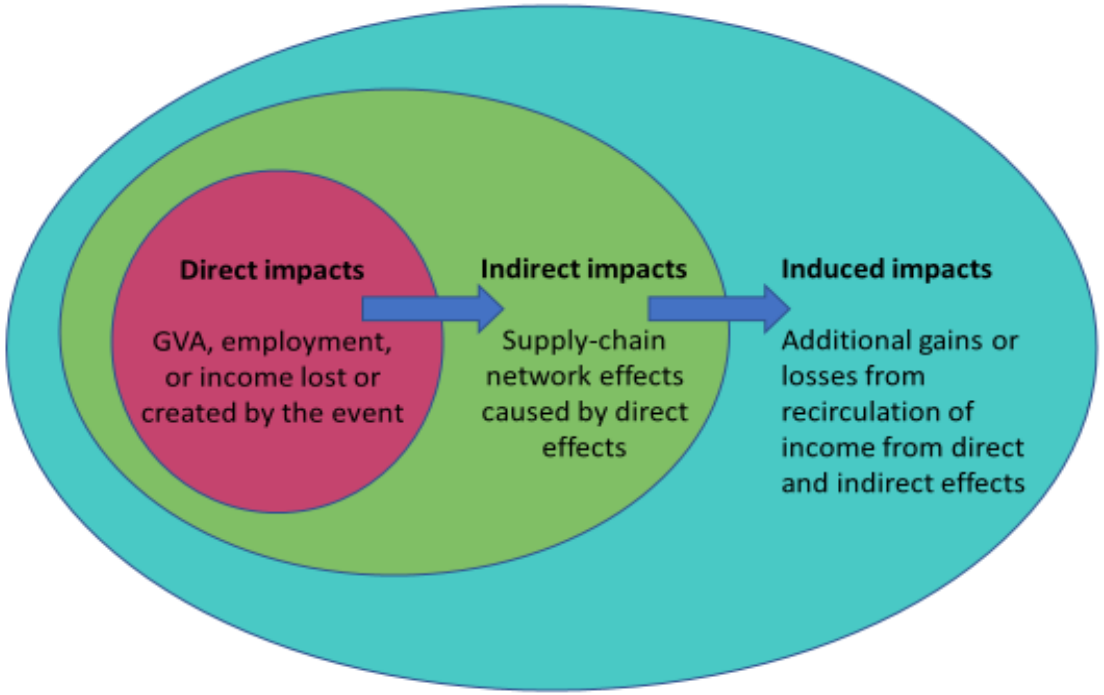
Wider impacts – moving from direct, to indirect, to induced effects

- Vulnerability analysis can help to establish direct impacts, but what of the wider effects?



Hospitality sector example

- *Direct effect* on pubs, cafes, restaurants, hotels, etc through estimating job layoffs or loss of revenue
- *Indirect effect* through supply chain linkages, in food and drink, as well as business services
- *Induced effect* based on money spent from wages on other local amenities (retail, leisure, etc)

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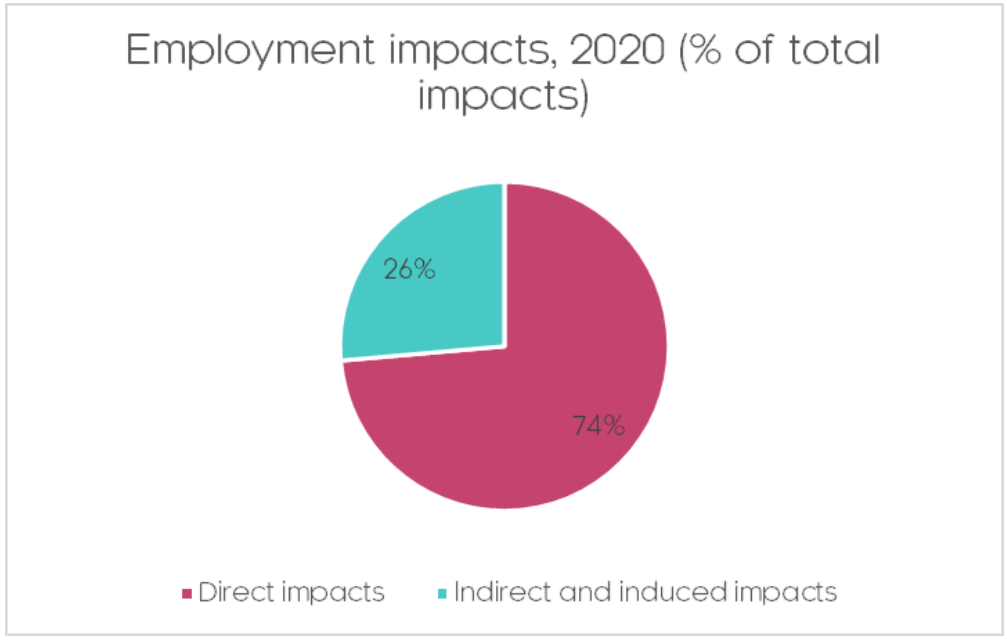
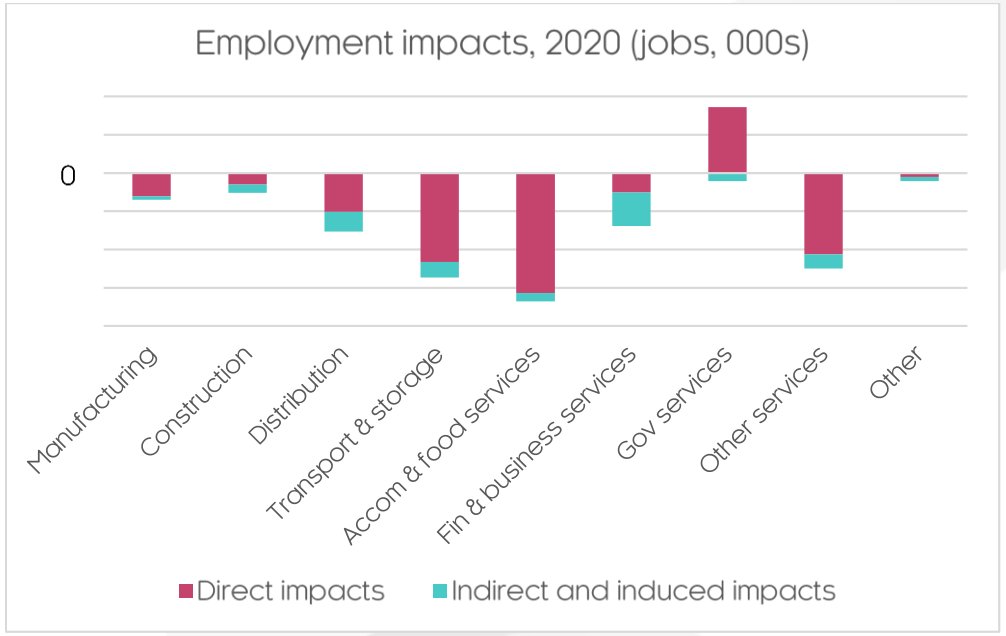
Modelling the wider economic impacts

- Example use of CE's Local Economy Forecasting Model
  - An input-output framework capable of replicating local supply-chain linkages
  - Taking local estimated direct impacts, including offsetting factors, and additional effects on occupations and labour force participation





Resilience and prospects for recovery

- What do we mean by resilience and why it is important for recovery paths?
- What can be learned from previous work on regional and local resilience?
- What needs to be taken on board going forward?
  - The nature of the shock(s)
  - The policy environment

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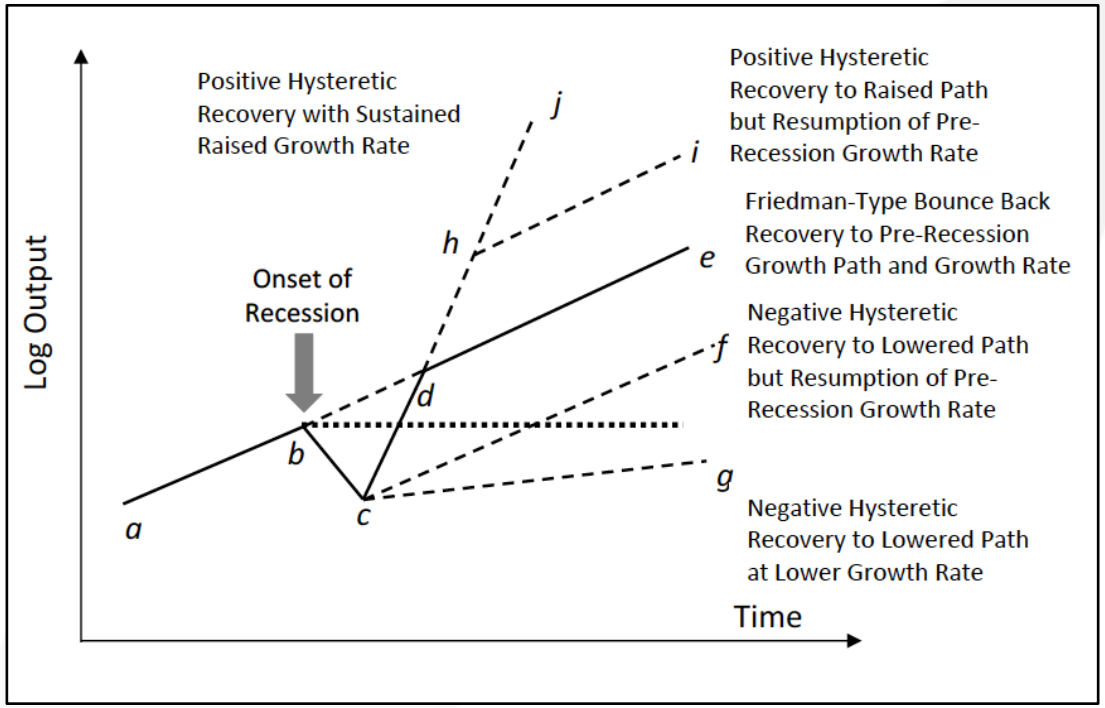
What do we mean by resilience and why it is important for understanding economic recovery?

- Resilience is about several aspects of a shock:
  - Ability to resist the shock
  - Capability to react and re-orientate / adapt around the shock
  - Nature of recovery from the shock
- Why is this important for how an area recovers from a shock?
  - The cycle of shocks and resilience help to shape the long-run path of economies
  - There is no automatic return to 'equilibrium' rates of growth

Stylised Types of Recessions and Recoveries



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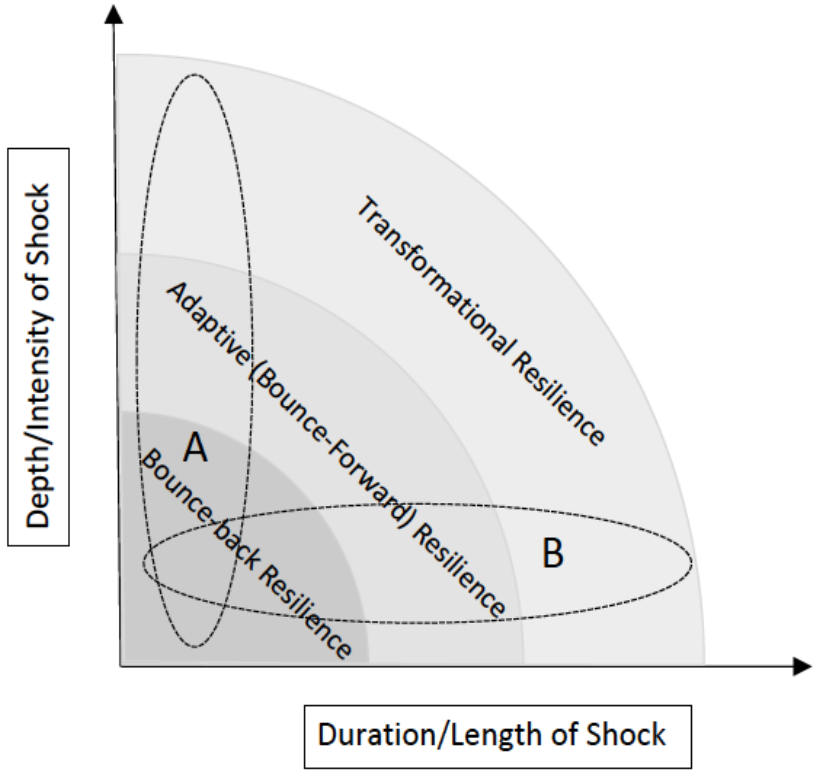
What can be learned from previous work on regional and local resilience?

- Sectoral structure is only a (relatively minor) part in explaining why some areas are more resilient than others
  - Although this shock is perhaps a bit different / more sectorally-focussed
- There is rarely a bounce-back where above-trend or faster growth is enjoyed
- The effects of shocks (both the ability to resist and to recover) are compounded by other (slow-burn) effects already going on in an economy
- How well an area was able to resist previous shocks can have little bearing on how well they recover from the next one that comes along



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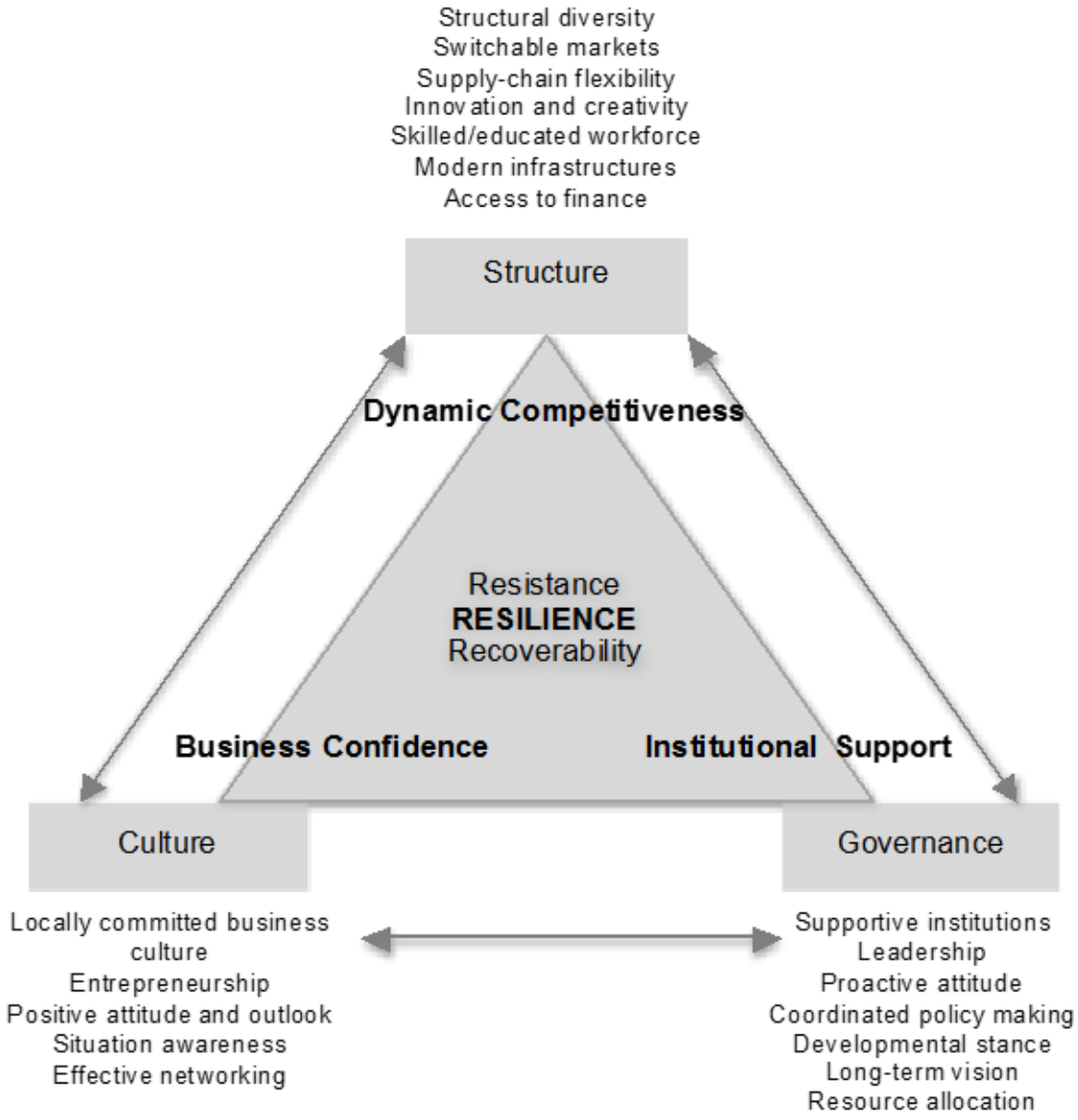
What needs to be taken on board going forward?



- Further understanding of how the effects of this particular shock can be translated into policy changes which can improve resilience to local areas
- How to embed the concept of resilience in future strategic thinking, e.g. the development of local industrial strategies and other place-based measures aimed at furthering the devolution agenda
- The understanding that there is no quick fix, and changes take time to enact, embed, and take effect
- Other compounding shocks to consider, e.g. no deal Brexit, climate change

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Conclusion

- Data are still emerging about the true impacts of the crisis
  - nevertheless, the impacts appear to be towards the more pessimistic end of the current range
- Greater specialisation of, and diversity across, local areas points to very different impacts (not simply a scaled-down local picture)
  - local exposure must be considered from a range of perspectives
- While we are still in the middle of this:
  - resilience and prospects for recovery remain relevant (and a carryover from the financial crisis) and should form an integral part of strategic thinking
  - implications for levelling up and thinking about next / compounding shocks on the horizon

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