

Does industrial mix predict local economic performance?

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Outline

- Motivation of paper
- Summary of results
- How they were obtained
- Policy implications

Motivation

- A lot of taxpayers' money is devoted to regional and local economic development
- Much of the policy focus is on the 'knowledge based economy'
- But what do the industrial structures of successful local economies actually look like?

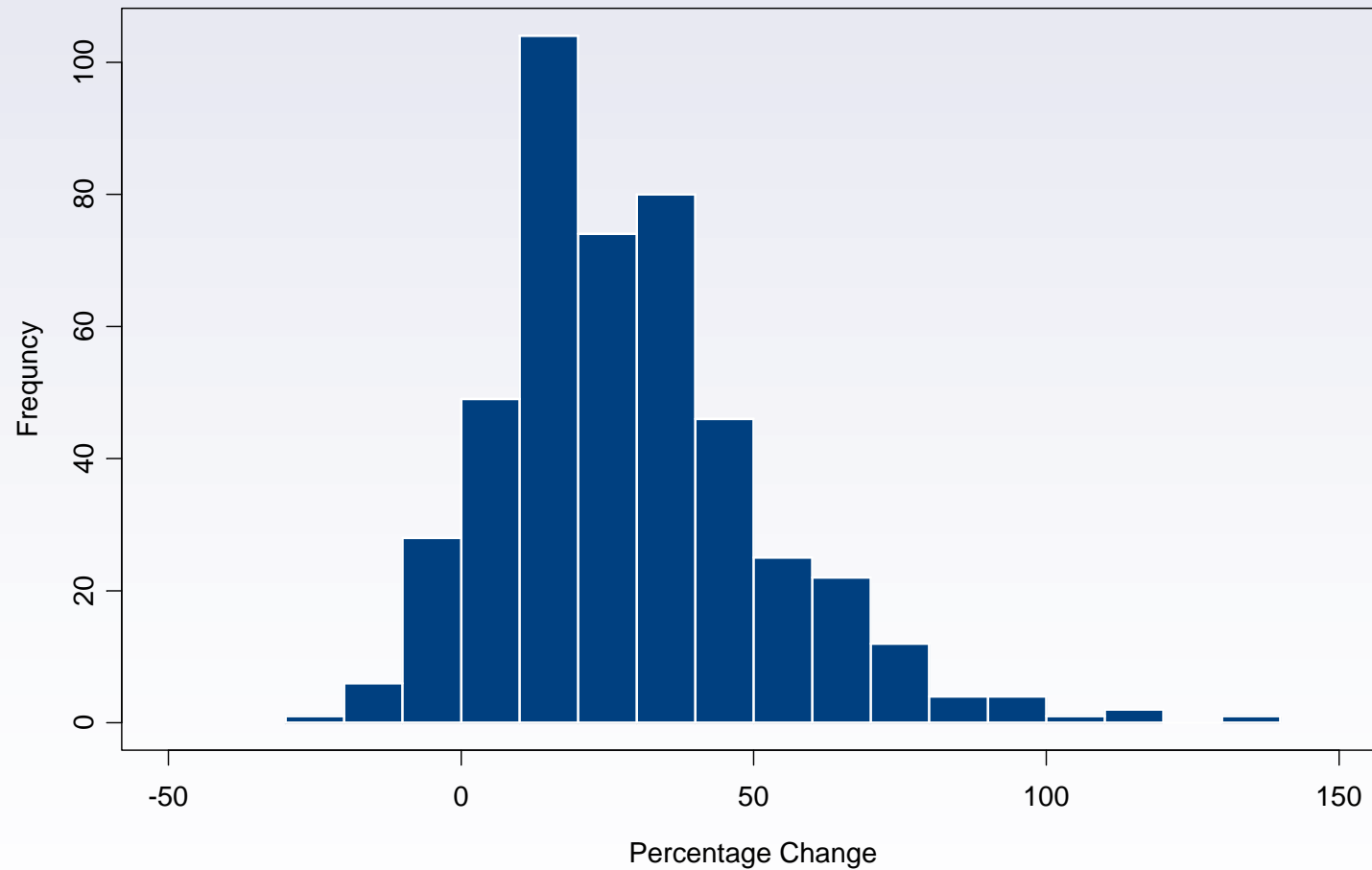
Results

- industrial structure itself is of only second-order importance in determining employment growth
- On average, certain types of structure *are* associated with faster subsequent growth of employment than other types
- But the differences **within** the experiences of local areas with very similar structures are much greater than the differences **between** the averages for the various types of structure

Analysis (1)

- Employment data in 58 industries is available in the 400+ local authority areas in England, Wales and Scotland
- Examine *total* employment growth (per cent) in each area 1983-2002
- See how this is linked (if at all) to the industrial structures of each area in 1983
- Paper is published in the Society of Business Economists' journal vol. 37 no. 2, 2006

Percentage change in employment, 1983-2002, 459 local authority districts in the UK



Analysis (2)

- Very wide spread of industrial mix across the areas in 1983
- Barking and Dagenham 23 per cent in vehicle manufacturing; some mining areas > 20 per cent in mining
- South Cambridgeshire 3.5 per cent in research, 0.3 per cent in computers
- Biggest sectors in total were retail (8.7%) and health and social services (8.8%)
- Lowest % in retail 1.7, highest 17
- Lowest % in health and soc services 1.2, highest 35.6

Analysis (3)

- examine local areas which had similar industrial structures in 1983
- see whether they experienced similar employment growth rates over the 1983-2002 period.
- measure of similarity defined using the mathematical concept of the distance between vectors
- two standard measures of distance used, results very similar with both
- define the 'K nearest neighbours' of any given area: the K other area which had an industrial structure in 1983 most similar to the given area

Analysis (4)

- *If* industrial structure is a powerful determinant of economic performance we will see:
 - considerable similarities between the employment growth record of areas whose structures were similar
 - considerable differences between these and areas with different industrial structures

Analysis (5)

- Examined results with different values for K (most similar)
- Examined different splits of the data
- Results not affected by this

Average percentage growth of employment 1983-2002, k nearest neighbours of areas of each quartile of growth

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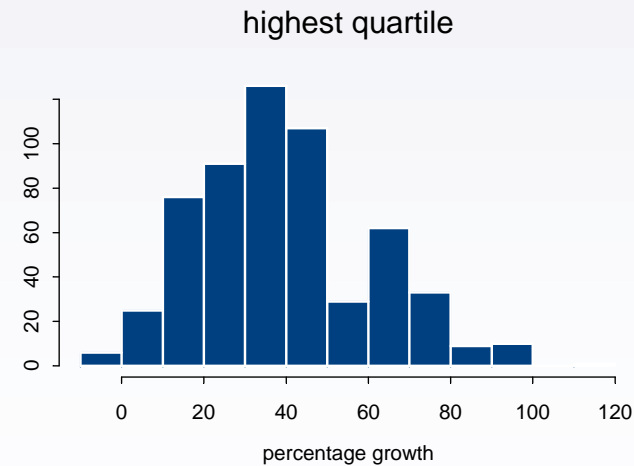
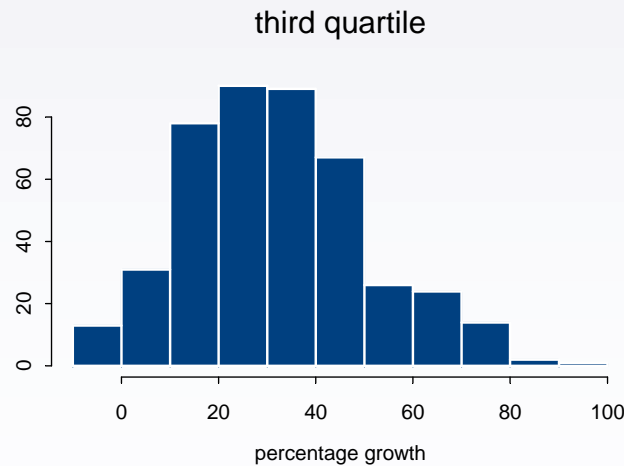
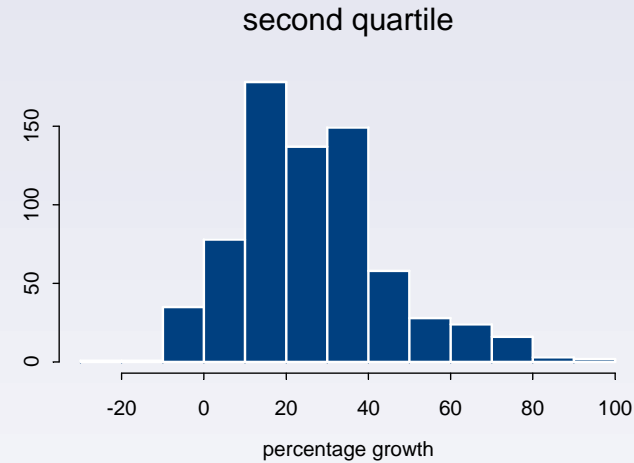
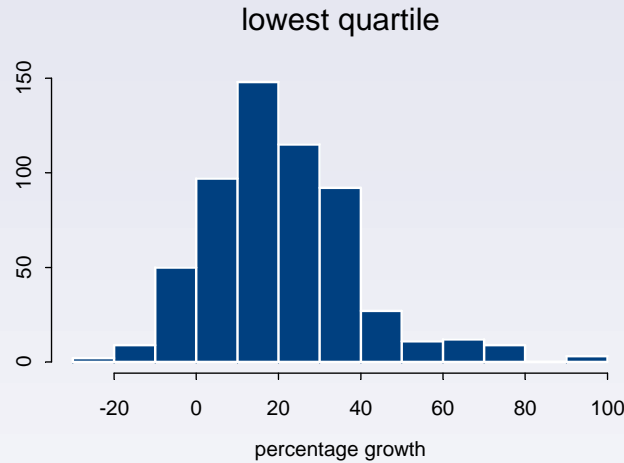
	nearest 1	nearest 5	nearest 20
lowest growth quartile	18.6	20.5	23.5
second quartile	26.6	26.4	28.8
third quartile	31.1	31.7	32.7
highest quartile	40.9	39.1	38.1

Range of growth in percentage growth in total employment 1983-2002 *within* the 5 nearest neighbour quartiles

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	first quartile	mean	third quartile
lowest growth quartile	7.7	20.5	31.10
second growth quartile	13.4	26.4	37.1
third growth quartile	17.9	31.7	41.6
highest growth quartile	23.5	39.1	49.9

Histograms of employment growth of 5 nearest neighbours by quartiles of employment growth



Percentage employment growth 1983-2002 in the 5 areas most similar in industrial structure in 1983 to the fastest and slowest growing areas 1983-2002

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Hart	Milton Keynes	Cumnock and Doon Valley	Barking and Dagenham
42.0	84.7	-17.7	1.6
49.5	34.9	-0.2	14.6
34.4	3.7	-9.0	28.2
46.6	22.0	3.9	37.1
23.5	20.3	-0.7	1.5

Implications

- a wide variety of industrial structures is compatible with employment growth and economic success
- the current policy obsession with attracting and developing 'knowledge-based' industries is misplaced
- in so far as policy can have a positive impact in this area, it should focus instead on the quality of the firms in *any* industry in a locality
- even apparently 'old' industrial structures can be associated with subsequent economic success