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Spatial Inequalities in Long-Run: Perspectives of Economic History and Historical National Accounts

Report on the habilitation thesis of Dr Alexander Klein for the title of Docent

Habilitation report, March 2017
Habilitation report

This report provides a critical appraisal of the habilitation thesis submitted by Dr Alexander Klein, who has applied for the title of Docent at the University of Economics in Prague. In the following I provide a report on each of the five chapters of the thesis, with some suggestions as to points that might be raised at his presentation. In the conclusion I give an assessment of whether Alexander Klein’s thesis warrants the award of the Docent title.


This chapter presents decadal state-level estimates of GDP from the income side in the United States for the period 1880-1910, compiled following the methodology developed by Richard Easterlin. This represents the sort of data work which is one of the major comparative advantages of economic history, and is a major service to the economics profession more generally. The new series allow for a better understanding of a crucial period of American history during which the US became the leading economic power in the world. Alexander Klein documents carefully the steps he took in constructing the series, and discusses the limitations of his estimates.

Questions:
- What can we learn from this data in terms of convergence/divergence between the various states?
- How are Native Americans taken account of in these estimates? I imagine they were a fairly large share of the population in certain states/territories.
- Would it be worthwhile attempting to calculate estimates from the output side (cf. the work of Broadberry etc.)?

2. Chapter 2: Aggregate and per Capita GDP in Europe 1870-2000: Continental, Regional, and National Data with Changing Boundaries

This chapter represents another useful data contribution by calculating estimates of aggregate and per capita GDP in constant prices for Europe over the period 1870-2000. Estimates for both the continent as a whole, for three regions, and for individual countries are presented, where the latter (following Bairoch) differs from the famous Maddison approach by allowing for changing borders over time – something which is useful if for example comparing GDP/capita estimates with other data based on historical borders. Otherwise the data underpinning the estimates is similar to that used for the (updated) Maddison database. The challenges with this approach are carefully discussed (not least in terms of defining the area covered by Europe). Important issues such as convergence are discussed.

Questions:
- I will focus here on the area I know best! I would advise caution about using some of the more ‘historical’ historical estimates such as those for Denmark (Hansen 1974). I do not know much about the other sources, but those of Hansen are of little value, since they rely
on dubious assumptions such as a constant per capita consumption of grain over time. Also, his sources are not very well documented. This is not a criticism of Alexander Klein’s work as such, since these estimates are always used, but (based on this one example) I think a little more caution might have been used regarding the series employed. Updated series for Danish agriculture and industry for 1896-1965 are available in Larsen et al (2010), ‘Landbrug og industri i Danmark 1896 -1965. Nye beregninger af BFI inden for de varefremstillende sektorer’, Historisk Tidsskrift 110:2, pp. 358-401, which is online and includes an English summary.


This chapter uses an empirical strategy suggested by Wolf (2007) to examine the importance of market access and factor endowments for industrial location in the United States, and in particular in order to understand the existence of a manufacturing belt. It is found that market access, particularly through forward-linkage effects, was the most important determinant, with the share of farmland playing a secondary role, at least in the beginning of the period. An important qualification is that it is, due to data limitations, not possible to understand the emergence of the manufacturing belt, but only its persistence. It is an extremely well-executed contribution to the economic geography literature.

Questions:

- Is there any issue in using the GDP data from chapter 1 to estimate market accessibility, since it is constructed using in part total wealth in industry, which might be mechanically related to the dependent variable in the regression (share of employment in industry)?
- Relating to the above maybe, an instrument is employed to take account of the endogeneity of market access, namely distance to New York City, the inverse of the distances to New England and Middle Atlantic, and the sum of inverse distances between the U.S. states. Are there any potential issues with the exclusion restriction? I could imagine for example that distance to New York City is simply a measure of market access to the world, since it was a major port, that this would have a direct effect on industrial shares.
- Can this work help us to understand the later decline of the manufacturing belt? Why did the persistence disappear?


This chapter looks for evidence of home bias in US domestic trade in 1949 and 2007 by estimating a gravity equation, finding considerably more evidence in 2007 than in 1949. The high share of production in the Manufacturing Belt, relative to a more even distribution in later years, is found to be the main reason why there is a negative home bias for certain commodities in 1949. This supports earlier work which suggests that home bias does not necessarily mean substantial losses from barriers to trade. A new result, however, is that mid-twentieth century patterns of home bias were very different to those in more recent years. This is good work, using some interesting data.

Questions:

- Why are these two years chosen? Would it be interesting to look at intermediate years in order to see when the results change?
- The point about the effect of barriers to trade is interesting, but could be explored some more. Would it be possible to link these findings to current debates about the role of trade policy in the United States?

This chapter makes use of a unique dataset taken from the US Census of Manufactures to investigate the connection between specialization and the diversity of industrial structure in the United States in the early twentieth century. It is found that greater specialization was associated with faster labor productivity growth in industry, and that a greater diversity of industry in a city is negatively associated with productivity for smaller cities, and positively correlated for larger cities. These results are taken as evidence of intra-sector agglomeration externalities. It is also found that industrial specialization increased greatly as railroad networks expanded in the early twentieth century, leading to productivity gains. This is a thorough analysis of an important issue relating for example to a wider debate about how developing countries can ensure that cities contribute to economic growth through specialization.

Questions:

- Are there any risks of specialization? I imagine that Detroit has not gained in the long run from specializing in automobiles.
- Related to the above question, what are the implications for smaller developing countries with only one or two large cities? Would this not mean a danger of too great a national specialization depending on fickle world markets?
- Finally, what is the external validity of the findings here? Is the United States perhaps unique (for example in terms of the size and diversity of its internal market), with the implication that these findings are difficult to apply to other countries?

6. Conclusion

It is my opinion that of the fields of economics, as Schumpeter put it in 1954, ‘economic history – which issues into and includes present day facts – is by far the most important’. This is something which has become widely recognized in the profession recently, as witnessed by the boom in economic history publications in the top economics journals, including the very best. This only lends support to my conclusion, which is that I would like to express my strong support for the award of the title of Docent to Dr Alexander Klein. His thesis represents path breaking research in the field of economic history. He creates new data and performs sophisticated empirical analyses with wide relevance both to the field and to economics and society more generally.

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