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# Hierarchy in industrial structure: The cases of China and the USA

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**Highlights**

- We compare the evolution of industrial structures of China and the USA.
- We visualize the hierarchy structure of industrial structure.
- We investigate the original of hierarchy in industrial structure, as well as its
- economic performance.
- Empirical analysis suggests that industrial structure with a moderate
- hierarchy might be better for economic growth.

**Abstract**: Although several studies have investigated the industrial structure from the perspective of network, the focus is mainly on the identification of key sectors, and little is known about the hierarchical structure, and its impact on economic performance. Using the World Input-Output Dataset (WIOD), this paper performs a comparative study of the hierarchy in industrial structures of China and the USA. Specifically, the hierarchy is generally confirmed in the networks of industrial structure, although in different levels for China and the USA: the level of hierarchy in industrial structure of the USA is much higher than that of China. To intuitively comprehend the evolution over time in a much visualized way, the backbone network of industrial structure is also presented, leading to interesting insights. Further, the impact of the hierarchy in network on economic performance is also explored, and the result suggests that a hierarchy within a moderate range might be better for economic growth.

**Keywords**: Hierarchy; Industrial structure; Minimum spanning tree; Key sector