

Productivity Growth of Sailing: Evidence from Slave Transportation from Baltimore to New Orleans Between 1818-1856

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【要旨】

This paper uses a new dataset for domestic packets collected by Clayton. This dataset consists of tonnage and traveling time information of vessels that transports slaves from Baltimore to New Orleans. In order to analyze these records, a production function of sailing is considered using a neoclassical production technology. Using this production function, the growth of total factor productivity (TFP) is estimated. According to this estimate, the TFP growth is about 50%~60% in the studied forty years (1818 and 1856). Since it is found that the TFP is measured by an increase in the sailing speed, this implies that traveling time from Baltimore to New Orleans declined from four weeks in 1818 to less than three weeks in 1856 on average. In addition, using other data sources, the evolution of price markup rate is estimated that shows a slow-but-steady decline during the studied period. Thus, it is also suggested that the maritime transportation market approaches competitive environment slowly but steadily.