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Reinventing the Wheel: The Economic Benefits of Wheeled Transportation in Early British Colonial West Africa

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One of the great puzzles of Sub-Saharan African economic history is that wheeled transportation was barely used prior to the colonial period. Instead, head portage was the main method of transportation. The consensus among historians is that this was a rational adaption to the underlying conditions and factor endowments. In this paper we undertake the first systematic investigation of the relative costs of the different forms of wheeled transportation in Africa. We focus on calculating the social savings and social rate of return associated with the introduction of the railway into colonial British West Africa. We provide more speculative estimates of the social savings of other forms of wheeled transportation. We find that all forms of wheeled transportation were economically efficient in the sense that they increased national income, though the estimated social savings of railways were modest when compared to GDP. However, we also find that the social rate of return of railways was exceedingly high, with annual social returns being equivalent to the entire capital outlays in Nigeria, i.e., railways there had a social rate of return of around 100%. Contrary to the conventional wisdom, railways appear to have been a very good social investment in West Africa because they were cheap to build. We discuss some alternative hypotheses that may nevertheless account for why they were not adopted.



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