

# Hotelling Model with Spatial Factor Costs

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January 9, 2008

## Abstract

This research embodies spatial factor costs into the Hotelling (1929) model and explores the existence and uniqueness of the maximum differentiation. Assume that there are two ports at the two ends of a unit length market and all raw materials can only be imported either from one of the two ports. It is shown that the unique equilibrium is the maximal differentiation on firms' locations when the transport rate of output is less than that of input, and when the input prices at different ports are not too differentiated (otherwise, both firms will import from the same port and no equilibrium exist due to undercutting).

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