1. Title
Does Transportation Infrastructure Promote the Spread of Infectious Disease? Evidence from the Covid-19 Outbreak in China

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3. Abstract
This paper studies the role of transportation infrastructure in promoting the spread of Covid-19 in China. Transportation infrastructure, including highways, high-speed railways, and airports, may contribute to the spread of Covid-19 from Wuhan to other cities in China. This paper uses a gravity model with spatial interactions to analyze a merged dataset with information on the number of confirmed cases and the level of transportation infrastructure in each city. The preliminary results show that connecting to Wuhan by a type of transportation infrastructure significantly increases the total number of confirmed Covid-19 cases in a city. Possible mechanisms, including inter-city migration, are also explored. The results in this paper provide guidance for future policies aiming at preventing and blocking the spread of infectious disease.

4. Data
This project uses several datasets. The number of infected people in each city is from local governments' reports and announcements. The city-level transportation infrastructure data has the information on the service levels of highways, high-speed railways, and airlines. We use this dataset to calculate whether a city is connected to Wuhan by a certain type of infrastructure. Data on city characteristics in year 2019, including GDP and population, is also gathered from government announcements and reports.

5. JEL codes: R49, R23, I10.

6. Keywords: Covid-19, transportation infrastructure, gravity model, infectious disease.