



# Corridors, trade, and new development in Economic Geography

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# Motivation

Recent developments in Economic Geography: when trade and spatial economists meet again.

- ▶ New theoretical models with many asymmetric regions to study the spatial distribution of people and economic activity
  - ▶ New tractable general-equilibrium models
  - ▶ Eaton and Kortum (2002)
  - ▶ Counterfactuals / welfare effects
- ▶ New geospatial data to model trade and migration costs across regions using GIS techniques

Focus on the impact of trade, transport investments and international corridors on the spatial distribution of people and economic activity

# Applications of these new techniques at the WB

Understand the spatial and welfare effects of:

1. the Belt and Road Initiative (BRI), a pipeline of new transport infrastructure and trade policy reforms, led by China.
  - ▶ quantitative economic geography model with regional comparative advantage and specialization based on Fajgelbaum & Redding (2018)
2. potential transport and logistics policies in Bangladesh and Vietnam
  - ▶ Same + Market Access litterature (Hornbeck & Donaldson, 2016)
3. border opening and land transport investment between Egypt and Jordan
  - ▶ Quantitative spatial model from Redding (2016)
4. more in progress: EU integration on the Western Balkans, regional integration on secondary cities in Mauritania, major corridors in Western Africa, etc.

# Spatial effects of the BRI

*"Who wins, who loses? Understanding the Spatially Differentiated Effects of the Belt and Road Initiative", Lall & Lebrand*

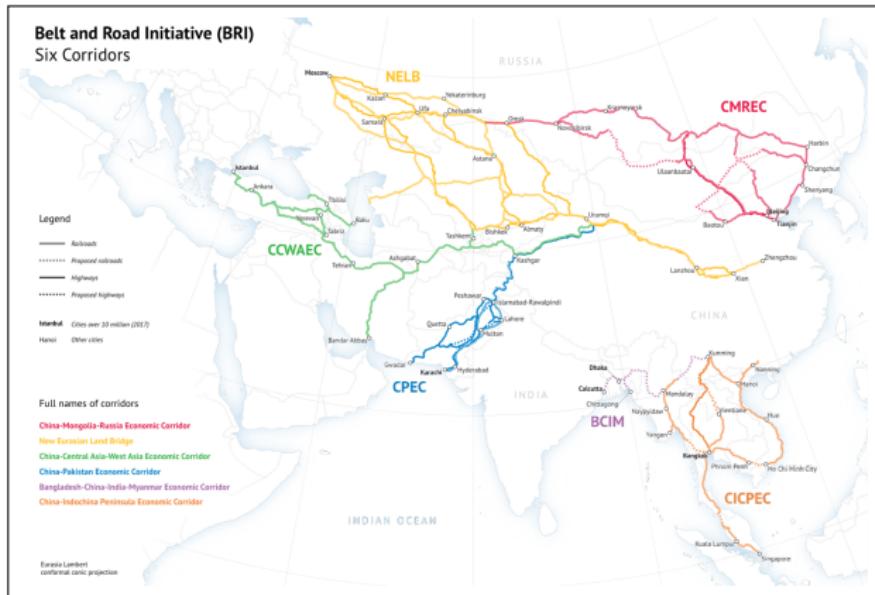
- ▶ What are the spatially differentiated effects of the BRI within China and Central Asian countries?
- ▶ What is the role of labor mobility?
- ▶ Are there complementary policies to mediate the economy's response to external integration?

Method: quantitative economic geography model based on Fajgelbaum & Redding (2018) enhanced with labor mobility frictions.

- ▶ Key elements of the model:
  - Production: tradables and non-tradables / two production factors (land and mobile workers)
  - Asymmetric locations (districts) in terms of productivity, amenity scores, transport costs to reach main international gateways
  - Domestic labor mobility frictions (preference shocks, iceberg costs)

# What is the BRI?

The BRI: 6 main corridors with the potential of influencing 65 countries, 4.4 billion people, and leveraging 40 percent of global GDP.



SOURCE: Adapted from China-Britain Business Council, by A. Trubetskoy

# Spatial effects of the BRI

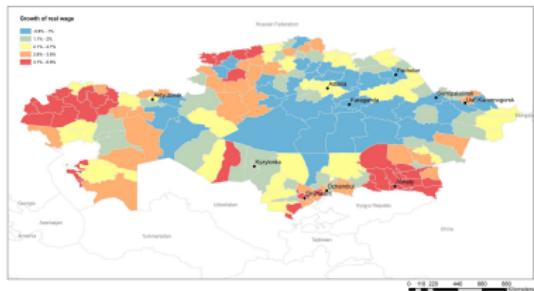
Four main results:

1. The relative winners in terms of population and real wages are districts that have a comparative advantage in exporting, would highly benefit from reductions in transport costs, and are attractive places for workers.
2. Gains are concentrated in locations close to border entry points and in urban hubs.
3. Complementary investments in domestic transport networks and trade facilitation can help in spatially spreading the benefits.
4. Barriers to domestic labor mobility exacerbate spatial inequality in wages whilst dampening overall welfare.

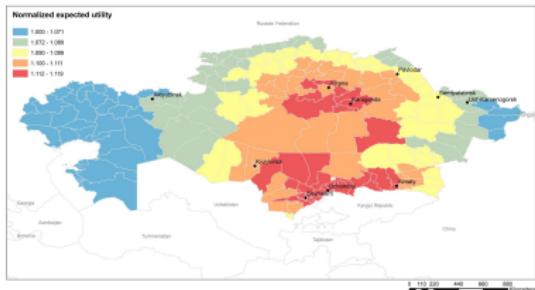
# Spatial effects of the BRI at the country level

In Kazakhstan, regions close to border gateways and urban centers will benefit the most from the BRI...

(a) Welfare gains



(b) Access to opportunities

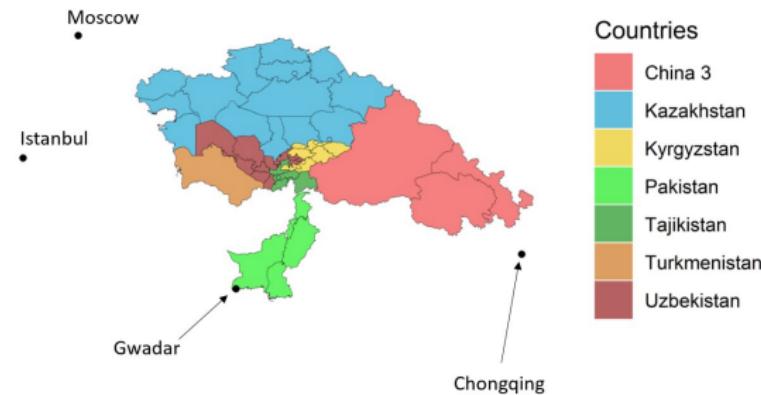


... but workers currently in and around urban centers have the best access to opportunities given mobility costs.

# Spatial effects of the BRI: from the "small country assumption" to regional trade with neighboring countries

*The Belt and Road Initiative: Reshaping Economic Geography in Central Asia?, Bird, Lebrand, Venables (forthcoming)*

Objective: assess the effects of the BRI corridors considering the general equilibrium effects on the whole region.



# Future research at the intersection between trade and spatial economics: new methods and new data

1. Develop new methods:
  - ▶ Use of structural models: from NEG to Eaton-Kortum trade models (Redding & Turner 2015)
  - ▶ Use of assignment models to understand the spatial sorting of skills and sectors (Dingel 18)
  - ▶ Develop and estimate these models in regional and urban economics (Tsivanidis 18, Gaubert 19)
2. Increase use of new data: individual-level data (people, firms), big data, and machine learning techniques
3. Improve the micro-foundations of the transport sector and costs

# Future research at the intersection between trade and spatial economics: new questions

1. Insert the international dimension: how regions and the system of cities interact with the rest of the world.
2. Interesting questions:
  - ▶ Trade, urbanization, and rising inequality
  - ▶ The response of internal migration to trade shocks
  - ▶ Spatial specialization: understand the fragmentation of production tasks across space between and within nations
  - ▶ Impact of disruptive technologies on the spatial organization of cities and countries