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ECON 496

Homework 2

Motivation and Topic Restated:

Motivation: How does society structurally react to a rapid growth in both supply and demand, therefore an economy? Many large scale construction projects to improve society has shined an economic and structural growth in the economy throughout history. Some most well known examples are the highways, airports, waterways, and traffic interchange design.

Topic: How did large increases in infrastructure and construction funding attract new businesses and investments in different locations in the past? From past data, we can extrapolate past information and relate to other locations currently experiencing similar growth.

(Have not located a (or multiple) specific place(s) yet. I see a lot of research done in China, India, South Africa, and Turkey, but not European or North American countries.)

Question 1: Similarly, how have Seattle’s most recent construction projects affected workflow efficiency of local firms?

Question 2: How do structural improvements and locational amenities attract people, implying human capital and talent? (This may be related to income distribution.)

Primary Papers Summary:

All 3 papers’ hypotheses and empirical research suggest that infrastructure development is a critical recipe to economic growth. Not only that, but also infrastructure development can be used to highly effectively resolve societal issues such as poverty, congestion, and income inequality. The papers assume that all infrastructural components as a whole collectively constitute the infrastructure of an economy, “lump-sum financial policies do not affect private sector outcomes,” and publicly available inputs will be overstated with respect to current public investments (just like total consumer spending overstating the level of consumption due to inclusion of durable goods). Also, “core” infrastructure (such as roads, energy facilities, and planes) should possess the greatest explanation power of changes in productivity.

With additional infrastructure, meaning increased government expenditure, in the short term, excess demand is created then interest rates increase, then the substitution lines’ production increases, starting a trade deficit in the short run. However, the papers show that the stimulus on the private sector outcomes overshadow total public expenditure. The stock of infrastructure assets is positively related to economic growth and higher quantity with quality decrease income distribution inequality, increasing per capita income and consumption. Although studies capture some causal impact of infrastructure on growth, the relation can be a reverse causality from productivity (in terms of per capita income) to demand of public infrastructure. An additional interesting trend is, as time goes, if government spending on public capital does not increase, the rate of growth of productivity slightly decreases, which was observed in the U.S. during the 1970s.

3 Primary Sources:

1. Is public expenditure productive? (<https://www.sciencedirect.com/science/article/pii/0304393289900470>)
2. The Effects of Infrastructure Development on Growth and Income Distribution (<https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-3400>)
3. Infrastructure Development and Economic growth: Prospects and Perspective (<https://pdfs.semanticscholar.org/8fcd/6cb961185007b6f929473a716fe588c0ff86.pdf>)

Additional Papers:

Causality:

* <https://www.pnas.org/content/113/27/7310>
* <https://www.sciencedirect.com/science/article/pii/030859619190007X>
* <https://www.sciencedirect.com/science/article/pii/S0304393200000179>

Modeling:

* <https://www.journals.uchicago.edu/doi/abs/10.1086/261726>

China:

* <https://www.sciencedirect.com/science/article/pii/S0147596700916937>
* <https://www.researchgate.net/profile/Pravakar_Sahoo/publication/49175190_Infrastructure_Development_and_Economic_Growth_in_China/links/540431d60cf2c48563b04d61.pdf>
* <https://www.sciencedirect.com/science/article/pii/S0140988313001199>
* <https://www.sciencedirect.com/science/article/pii/S0966692312002621>
* <https://www.tandfonline.com/doi/abs/10.1080/01441647.2011.603104>

India:

* <https://www.tandfonline.com/doi/abs/10.1080/13547860903169340>

Growth (General):

* <https://academic.oup.com/qje/article-abstract/106/2/407/1905452>
* <https://www.sciencedirect.com/science/article/pii/S1574068405010087>

EconLit:

* The Liberalization of Transportation Services in the EU and Turkey
* Handbook of Sustainable Development Planning: Studies in Modelling and Decision Support
* Economic Growth and Infrastructure Investments in Energy and Transportation: A Causality Interpretation of China's Western Development Strategy
* Satisfying Transportation Needs in Fast-Growing Metropolitan Areas: Mobility Solutions for Mega-cities in Developing Countries
* Enhancing North Africa's Infrastructure for Improved Competitiveness
* Infrastructure Development and Employment: The Case of Turkey
* Economic Growth in South Asia: Role of Infrastructure
* Physical Infrastructure and Development of Secondary Sector: An Econometric Analysis for Six States in India
* The Significance and Performance of Infrastructure in India
* Firm Productivity and Agglomeration Economies: Evidence from Egyptian Data
* A Multi-objective Distance Friction Minimization Model for Performance Assessment through Data Envelopment Analysis