

Research Project on Infrastructure Investment: Political Determinants and Capital Returns

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Proposal Description:

Infrastructure investment, we all know, is important for long term economic growth. Less is known about the conditions under which governments and private actors make better and worse infrastructure investment decisions. When should the government maintain private property rights, and when should the government itself invest taxpayer money? These questions, in turn, require a deep understanding of what kinds of governments make better decisions about market regulation and public sector investments. More is not always better. Creating highway networks can forestall the creation of more efficient systems of mass transport. In the United States during the nineteenth century there was massive overbuilding of railways. Bridges to nowhere go ... nowhere.

This interdisciplinary project will involve principal investigators from the Yale College political science department and the SOM finance group.

For the political science part of the project, we are seeking RAs for a large-scale research project spanning many decades in multiple countries, to help us understand how governments shape infrastructure investment and when and what kinds of government investment are the most effective.

On the independent variable side, we will investigate differences in the political foundations of public goods provision, the structures of electoral competition, kinds of political parties, and legislative organization that motivate and enable governments to aim at the long-term interests of citizens.

For dependent variables, we will track government investments (relative to private sector investments of various kinds, and the property rights that encourage them) in core industries that stand at the foundation of economies in various countries and periods. In 19th century Britain, the U.S., Germany, and Japan, railroads were a key infrastructural feature of the economies that, even if for military motivations in some cases, connected markets and improved productivity. In later periods the key industries included communications and energy.

For the finance side of the project we will focus on infrastructure investment over the long term by global capital markets. The central question is whether infrastructure investment is truly as low-risk as modern experience suggests, and whether there is a mis-match between the long-term perspective of infrastructure investors and the frequency of political disruptions. Infrastructure cannot only be a positive factor for society but it also can be disruptive, divisive and a catalyst for political change.

The financial side of the project will utilize historical data collected by research teams in Europe and the United States about the financing of projects over the past 200 years, and augment these with further data collection. It will involve a comprehensive analysis of the financial instruments and infrastructure investor experience. It will utilize monthly prices and dividends for stock and bonds issued from the mid-19th century to the mid-20th century.

Requisite Skills and Qualifications:

We need researchers to code securities by infrastructure category and geography and to summarize the findings. Left hand side variables include defaults on infrastructure debt, bond maturities and bond spreads over sovereign debt and

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market financing of new vs. old infrastructure. Right hand side variables include geo-political factors and events noted above, behavioral factors known to move security prices, and text analytics applied to news databases about topics such as canals, railroads, gas illumination, water works, electricity, telegraph etc.

Award: Jennifer Huang

Alex Wang

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Tobin Application Link: [Tobin Application](#)

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