

Freedom, Government, and Prosperity

Doug North earned the Nobel Prize in Economics by recognizing the importance of institutions in the performance of economies. These institutions include formal rules (constitutions, laws, property rights) and informal constraints (customs, traditions, and socially acceptable conduct.) Often the coercive power of government is used to enforce these institutions. Both the institutions and the way and the extent to which institutions are enforced affect economic development and general well-being.

The purpose of this analysis is to quantify the influence of government institutions on the general well-being as measured by the gross domestic product and the influence on financial markets as measured by interest rates. Government institution performance measures have been developed by various entities. Statistical techniques will be used to quantify the effect of increasing institutional performance on the general well-being and financial markets.

Cross sectional time series data on gross domestic product for over 200 countries around the world is available from multiple sources and in particular the World Bank. Interest data is less available but the *International Financial Statistics*, IMF reports private interest rates for short and medium term lenders.

There are at least four government institution performance measures: Economic Freedom of the World Index (EGW) from the Fraser Institute, World Governance Index (WGI) from the World Bank/ Brookings Institute, Index of Economic Freedom (IEF) from the Heritage Foundation, and Freedom in the World Index (FWI) from the Freedom House. In this analysis the primary focus will be on the EFW because it is the most objective based and is the most widely used. The EFW is a composition of the evaluation of government size, legal system, property rights, sound money, trade freedom, and regulation. The WGI is the second most commonly used index and will be used as a robustness test for the EFW. The other two indices are less commonly used and will not receive attention in this analysis. It appears that there is sufficient time series data since 2002 and across about 100 countries to comprise a more than satisfactory data set.

There has been some analysis of the relationship between government institution indices and GDP which found statistically significant relationships. However these studies do not lend themselves to empirically quantifying the size of these affects for at least two reasons, both are technical in nature. First, the scale of the index is arbitrary. As a result a single unit change in the index has little cardinal meaning and so is difficult to intuitively understand. One solution to the problem is to use country ranking of the index values either directly in the statistical analysis or to translate the results post statistical analysis. Secondly the data suffers from extreme heteroscedasticity. Both the statistical analysis and the following interpretation of the results must carefully deal with this problem.

There has been no analysis of the relationship between interest rates and the government institution indices except for an unpublished master's thesis by Jorge Calderon at MSU in 2014. This analysis will use that thesis as a starting point. The heteroscedasticity problem was not addressed in Calderon and will be addressed in this research. The scaling problem also needs further attention.

Several concomitant variables will be considered in both analysis to isolate the influence of the government index. These may include country specific variables such as inflation as well as world-wide economic variables.

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Deliverables:

The expected deliverables for this project include:

- (1) A seminar presenting the results of the study will be presented in the early summer of 2017.
- (2) A scholarly paper will be submitted to a journal during the summer of 2017

Budget:

The proposed budget is:

- 0.4 FTE Research Associate \$
- Misc. data collection expenses/travel \$
- Total Budget \$