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**EC 499 Project Proposal**

Research title

Exchange rate’s relation to income inequality, human development and life expectancy.

Description

The research paper looks to answer the question - Does having a higher exchange rate per USD signify a better way of life? In order to, answer this question, the paper will analyze the relationships between the following indices –

* Income inequality, measured by the Gini coefficient - <http://hdr.undp.org/en/indicators/67106>
* Human Development Index (HDI) - <http://hdr.undp.org/en/indicators/137506>
* Life expectancy index - <http://hdr.undp.org/en/indicators/103206>
* U.S. Trade in Goods by Country - <https://www.census.gov/foreign-trade/balance/index.html>
* Exports and imports (% of GDP) - <http://hdr.undp.org/en/indicators/133206>
* Official exchange rate (LCU per US$, period average) –

<https://data.worldbank.org/indicator/PA.NUS.FCRF>

* Demographic data for country

<https://data.worldbank.org/indicator/SP.POP.TOTL>

Methodologies & Analysis

The methodologies will consist of using regression models on a detailed panel dataset comprising of 20 countries with significant trading relation with the United States from the Asian continent and covering 20 years (1998-2018) of data.

The regression models will be running against different independent variables and will also consist of interacting different independent variables, to estimate the effect of one variable on another. Additionally, correlation analysis will also be done between the variables. Logit models will be used for exchange rate variables’ regression against the variables presented in U.S. Trade in Goods, and in Exports and imports (% of GDP) to estimate their statistical relationship.

Multiple regression analysis will be done across different indices, so that the relationship of the variables in the indices can be interpreted with their statistical significance. Following that, a two-tailed hypothesis test will be conducted in order to determine the significance of the relationships across variables. Average Treatment Effects will be measured to find the difference in mean between the variables.

Expected Conclusion

The conclusion will detail the methodologies and analysis in the in a concise manner and will go on to detail the OLS estimations made during the methodologies and analysis part. By doing so, the answer to the question will be presented.