

# Analyzing Foreign direct investment(FDI)'s impact in China in a machine learning approach

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## Backgrounds

In a more globalized economy, Foreign direct investments are playing bigger roles in our economies.

Since the Reform and Opening up, foreign direct investments have been allowed in China. By analyzing past data we can have predictions about China's economic structure.



Picture from: Foreign direct investment (FDI) | OECD Library (oecd-library.org)

## Research Questions

Based on Zhang's (2001) research, increases of FDI can increases export and decreases gross domestic savings.

Our research question are as follow:

Is the increase in foreign direct investment correlated with changes in domestic saving?

## Data Source

World Bank Open Data | Data  
foreign direct investment, net inflows(precentage of GDP)–China



figure 1.  
foreign direct investment percentage from world bank data

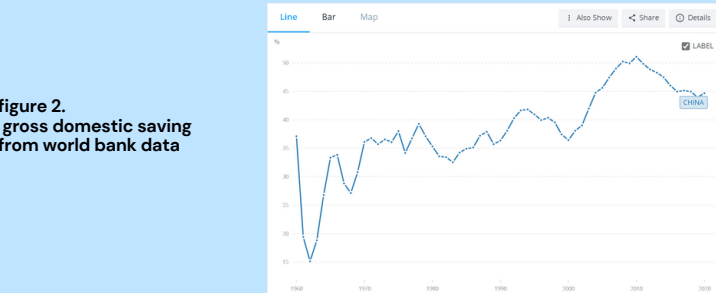


figure 2.  
gross domestic saving from world bank data

## Methodologies

In this research, I mainly used machine learning algorithms to explore the relationship between X and Y.

X is the foreign direct investment.

Y is the gross domestic saving and manufactural export.

In research we will be using machine learning algorithms to explore the relationship between foreign direct investment and domestic savings.

Based on previous research, increase in FDI will result in decrease of domestic savings.

The algorithms I will use include a decision tree, random forest, multi-layer classifier, and Auto-ML.

## Contribution to Literature

literature both explores the factors that effects FDI in China. This research can include more data and approach this question with a machine learning approach. There exist some limitations in these literature though, neither of them are published before China joins WTO, which seriously changed the FDI ratio in total GDP

## Expected Results

Based on previous studies, I expect the FDI trend and domestic savings would be proven negatively correlated. The data after algorithm can provide more insights in the causal inference of the data sets.

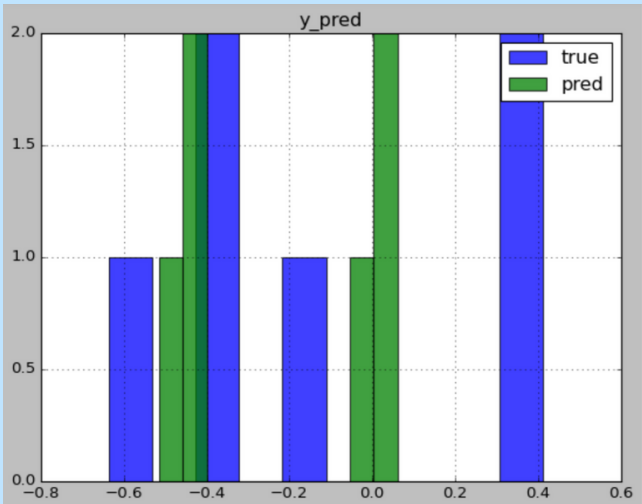
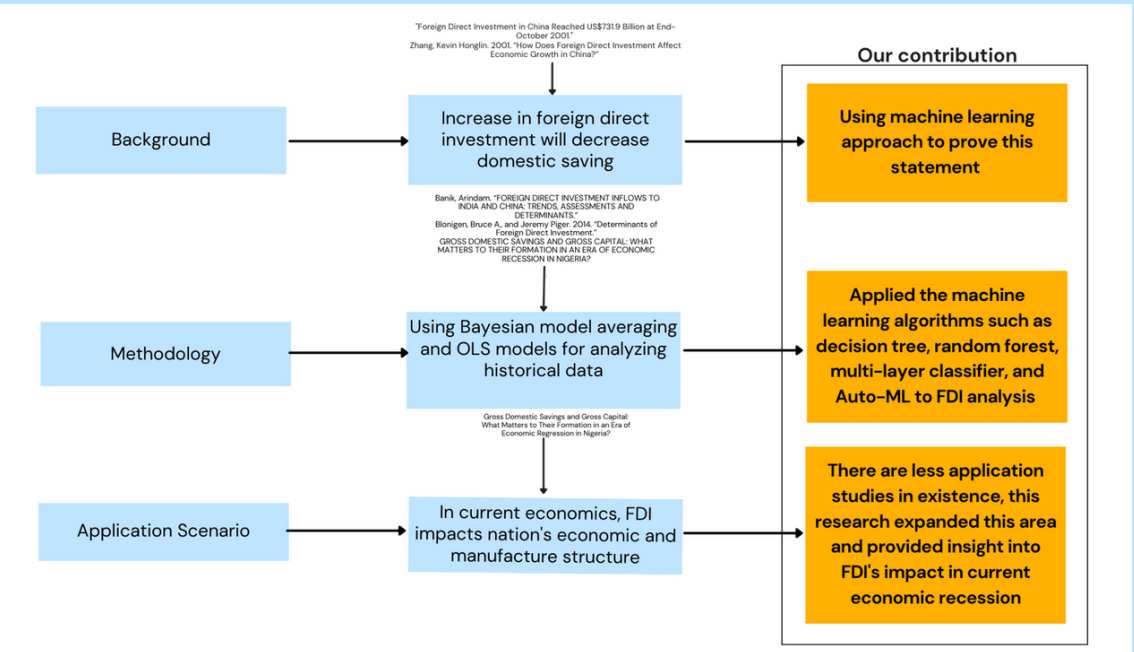


Figure 3. Results generated by Regression pictures from previous studies of FDI's relation with gross domestic saving



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