

Economic Growth and Freedom: A Cross-Country Analysis

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Introduction

Understanding the nature and causes of economic progress has been a challenge to development economists. The classic theory sees the economy as a production machine that transforms labor, natural resources and capital into output. In development economics, attention has therefore shifted to how and what degree economies succeed in realizing their potential. Development economists have started to take an interest in economic and political institutions. They are interested in two fundamental questions: How do different institutions affect economic development and growth? And how and why do good institutions arise? Recent empirical work has analyzed countrylevel GDP data and various measures of legal, financial, and political institutions to uncover which institutions are associated with more rapid economic growth. This study contributes to this line of research by investigating the association between economic freedom, economic growth, and economic wellbeing.

Data

The Heritage Foundation has tracked the march of economic freedom around the world with its influential Index of Economic Freedom for more than 25 years. The index examines 12 categories to gauge the economic freedom of a country. Here, economic freedom is described as the absence of government coercion or constraint on the production, distribution, or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty itself. The highest score is 100.

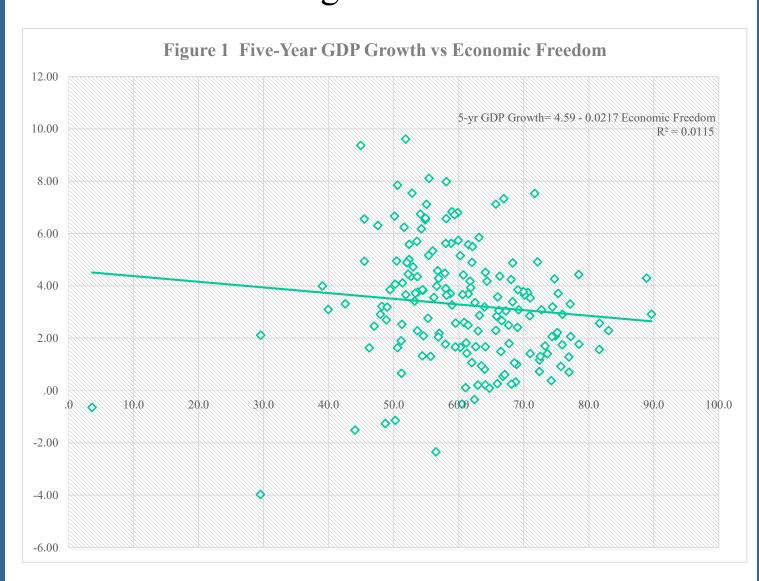
Table 1 provides the summary statistics of the main variables used in the study. The sample covers 176 countries over the years 2013-2021.

Table 1 Summary Statistics

| Variable | Mean | Median | Std. Dev. |
|-------------------------------|--------|--------|-----------|
| Economic freedom score | 60.83 | 60.76 | 11.09 |
| Property rights | 49.23 | 45.06 | 20.66 |
| Government Integrity | 43.02 | 37.06 | 19.36 |
| GDP (PPP, \$ billion) | 623.40 | 72.35 | 2,139.01 |
| Annual GDP Growth (%) | 3.13% | 3.02% | 2.27% |
| 5-year GDP growth (%) | 3.27% | 3.20% | 2.24% |
| GDP per capita (\$) | 18,681 | 11,863 | 20,056 |

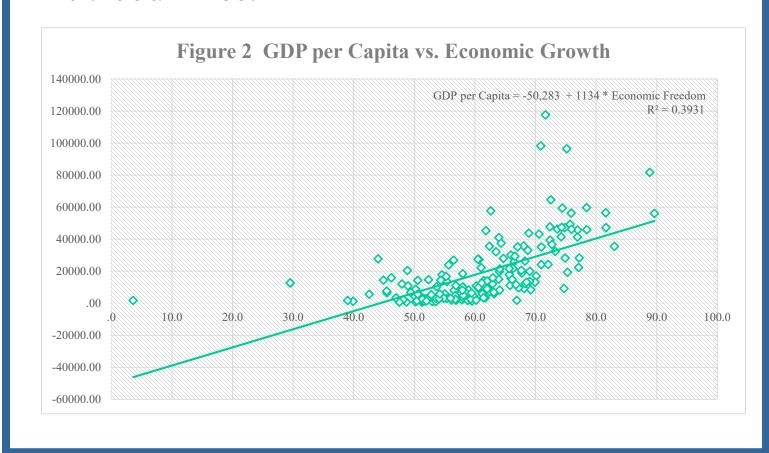
Growth and Economic Freedom

Figure 1 illustrates the correlation between the index of economic freedom and five-year GDP growth for 176 countries. The association seems to be negative, but it is not strong statistically. Regression analysis will be conducted to control for country size and economic wellbeing.



Economic Wellbeing and Economic Freedom

Figure 2 shows a strong and positive association between economic freedom and economic wellbeing, measured as a nation's gross domestic product (GDP) per capita, for 176 countries.



Regression Analysis

There are a number of ways to carry out OLS regression analysis. In this study, I first take the average of the economic variables during the sample period for each country, and then use the averages to run cross-sectional regressions. Their results are presented in Table 2.

In the first regression, the dependent variable is the annual GDP growth rate. The results show that the coefficient estimate of the economic freedom variable is positive and is significant at the 1% level, implying that economic growth is positively associated with economic freedom, when the size of the economy and economic wellbeing per capita are controlled.

Table 2 Regression Analysis

In the first column, the dependent variable is the five-year GDP growth. In the second column, the dependent variable is the five-year GDP growth. In the third column, the dependent variable is the natural logarithm of GDP per capita. Figures in brackets are the t-values. *** indicate significance level at 1%.

| Independent variable | Annual GDP Growth | Five-Year GDP Growth | Ln(GDP Per Capita) |
|-------------------------|----------------------|-------------------------|-----------------------|
| Constant | 9.573 | 10.369 | 4.761 |
| | [7.93]*** | [8.55]*** | [13.50]*** |
| Economic freedom | 0.08 | 0.05 | 0.06 |
| | [4.44]*** | [2.75]*** | [10.05]*** |
| Ln(GDP) | 0.227 | 0.254 | 0.185 |
| | [2.87]*** | [3.19]*** | [6.14]*** |
| Ln(GDP per | -1.332 | -1.218 | |
| capita) | [-7.34]*** | [-6.68]*** | |
| Adj R ² | 0.225 | 0.202 | 0.522 |

In the second regression, the dependent variable is a country's average five-year GDP growth rate. The results indicate that the coefficient estimate of the index of economic freedom is positive and is significant at the 1% level. The results imply that, after controlling for country size and economic wellbeing per capita, five-year economic growth is positively associated with economic freedom.

In the last regression, the dependent variable is the GDP per capita (in natural log). The results show that economic freedom is significantly associated with the economic wellbeing at the 1% level. In other words, countries with greater economic freedom have higher living standards.

Conclusions and Discussions

- 1. When country size and economic wellbeing per capita are controlled in cross-country regressions, the index of economic freedom is strongly associated with economic growth, as measured either by annual growth rate or by the average growth rate over the preceding five-year period.
- 2. The association between economic prosperity, as measured by GDP per capita, and economic freedom is also strong and positive.
- 3. The usual caveat that correlation does not imply causation applies. Further studies are needed to uncover the potential causal relationship.