

PP4RS Final project

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Introduction

This is a course project work to create the first draft version of a reproducible research workflow using Snakemake. The numbers illustrated here will check for a link between the population size and GDP growth rate, which in endogenous growth theory is referred to as scale effects. The workflow will use R to clean data and create the simplest possible liner regression. A markdown manuscript will then be converted to pdf using Pandoc. Lorem ipsum. Blah blah blah. Blah blah.

Literature

This chapter will check that the BibTex integration works correctly. I will replicate the figure presented on page 266 in Laincz and Peretto (2006). I will also add some additional features, such as grouping and color coding by continent. Also the data I use will be slightly newer.

Data

The dataset is taken from the Penn World Tables. After some cleaning, the dataset includes real GDP and population data for 121 countries for the period 1970-2010.

The summary of the statistics looks as follows:

Table 1:

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
ln_pop	121	2.007	1.449	-0.653	1.033	2.996	6.695
avg_pc_gdp_growth	121	0.025	0.018	-0.034	0.014	0.035	0.072

Results

As expected, there seems to be only very weak positive link between population size and real GDP growth. The linear regression is presented in figure 1 below.

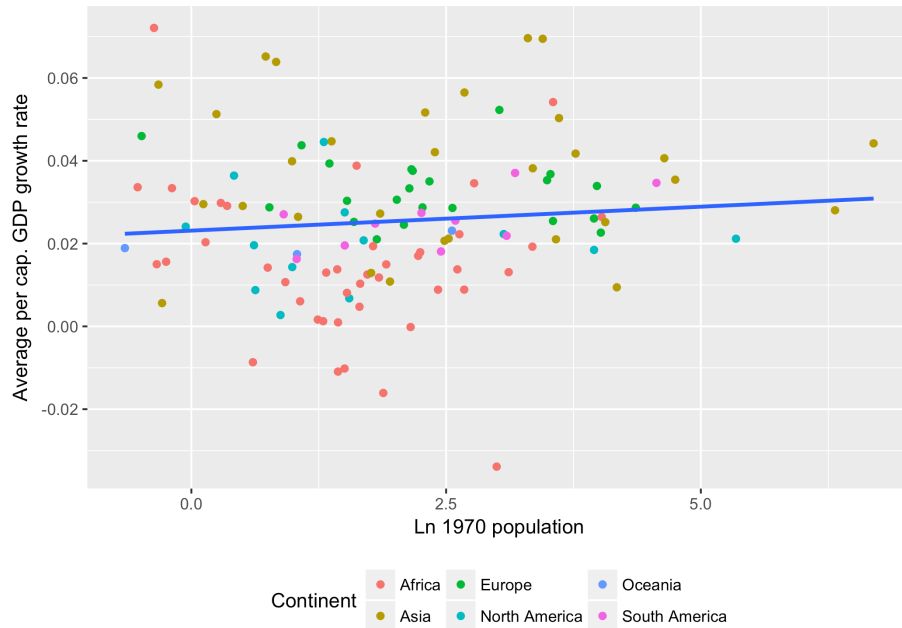


Figure 1: Average real GDP growth for 1970 - 2010 and log of 1970 population

Another table using stargazer, which, for this simplest regression, looks kinda weird.

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Table 2:

	avg_pc_gdp_growth
ln_pop	0.001 (0.001)
Constant	0.023*** (0.003)
N	121
R^2	0.009
Adjusted R^2	0.001
Residual Std. Error	0.018 (df = 119)
F Statistic	1.077 (df = 1; 119)

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Conclusions

Blah blah blah.

References

Laincz, Christopher A., and Pietro F. Peretto. 2006. "Scale Effects in Endogenous Growth Theory: An Error of Aggregation Not Specification." *Journal of Economic Growth* 11 (3): 263–88. doi:10.1007/s10887-006-9004-9.