Bottom-Up Decarbonization Policy Analysis Lab Report

your name here

Due Monday October 29

Introduction

Replace this with your introduction

Describe what you are doing for this lab and why. The lab involves analysis of what the whole world and some individual countries must do to reduce their carbon dioxide emissions in 2050 to the levels corresponding to the RCP 2.6 emissions pathway that would keep global warming below 2 degrees Celsius. (RCP stands for "Representative Concentration Pathway." If you are interested in learning more, a beginner's guide to the Representative Concentration Pathways is available at https://www.skepticalscience.com/rcp.php)

Data and Methods

Replace this with your data and methods

Undergraduates will analyze emissions reductions for the whole world, the United States, and China. Graduate Students will analyze emissions reductions for the whole world, the United States, China, Brazil, and India.

This is where you should explain how you analyzed the data and include your R code chunks for doing the analysis. It is good to include some plots in this section showing the data for the Kaya variables with the trend lines, and commenting on whether you think the data is well represented by a steady percentage rate of change.

Results and Discussion

Replace this with your results and discussion

Present the final results of your analysis: For each country or region, you should present the current CO_2 emissions (F), the target emissions for 2050, the implied rate of change of F, the extrapolated rate of change of G, the implied rate of change of ef, and the historical rate of change of ef.

It would probably be easiest to make a data frame or tibble with a row for each country or region and a column for each variable (e.g., F, F_2050, r_F_impl, r_G, r_ef_impl, and r_ef_hist) and then use the function kable to make the table in your report.

Conclusions

Replace this with your conclusions

What do you conclude from this analysis about the prospects for reducing emissions enough to follow RCP 2.6?