

Assessing China's Climate Responsibility

Final Paper

GRAD-E1402

Data Perspectives on GHG Emissions
Hertie School of Governance

submitted by
Meier, Constantin

Metz, Fabian

Mohn, Anna

Salzmann, Johann-Friedrich

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List of Abbreviations

AFOLU	Agriculture, Forestry, Land Use
CAT	Climate Action Tracker
CBRD	Common but differentiated responsibilities and respective capabilities
COP	Conference of the Parties
EDGAR	Emissions Database for Global Atmospheric Research
GDP	Gross domestic product
GHG	Greenhouse gas
GNI	Gross national income
GW	Gigawatt
NDC	Nationally determined contributions
REDD+	Reducing Emissions from Deforestation and Forest Degradation
UNFCCC	United Nations Framework Convention on Climate Change

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1 Introduction

World Bank (12.12.2022*a*) World Bank (2022*b*) Bank (2022) Grassi Giacomo et al. (2022)

2 Data & Assumptions

2.1 Used Data

2.2 General Assumptions

3 Analysis

3.1 China's Self-Characterization as a Developing Country

Categorization of Developed and Developing Countries

Comparison of Kaya Identities

Comparison of China's Sector Trends

Discussion

3.2 China's Equitable Share in Climate Change Mitigation

Future Development of China's Emissions

Equity Metrics

Discussion

4 Discussion and Conclusion

Appendix

A Session Info (RStudio)

- R version 4.2.1 (2022-06-23 ucrt), x86_64-w64-mingw32
- Running under: Windows 10 x64 (build 22621)
- Matrix products: default
- Base packages: base, datasets, graphics, grDevices, methods, stats, utils
- Other packages: dplyr 1.0.10, eurostat 3.7.10, forcats 0.5.2, ggplot2 3.3.6, ggridges 0.5.4, imputeTS 3.3, kableExtra 1.3.4, magrittr 2.0.3, openxlsx 4.2.5, pacman 0.5.1, plotly 4.10.1, purrr 0.3.4, readr 2.1.2, readxl 1.4.1, stringr 1.4.1, tibble 3.1.8, tidyr 1.2.1, tidyverse 1.3.2, WDI 2.7.8

Cumulative GHG Emissions, Main Scenario, China vs. EU vs. US,

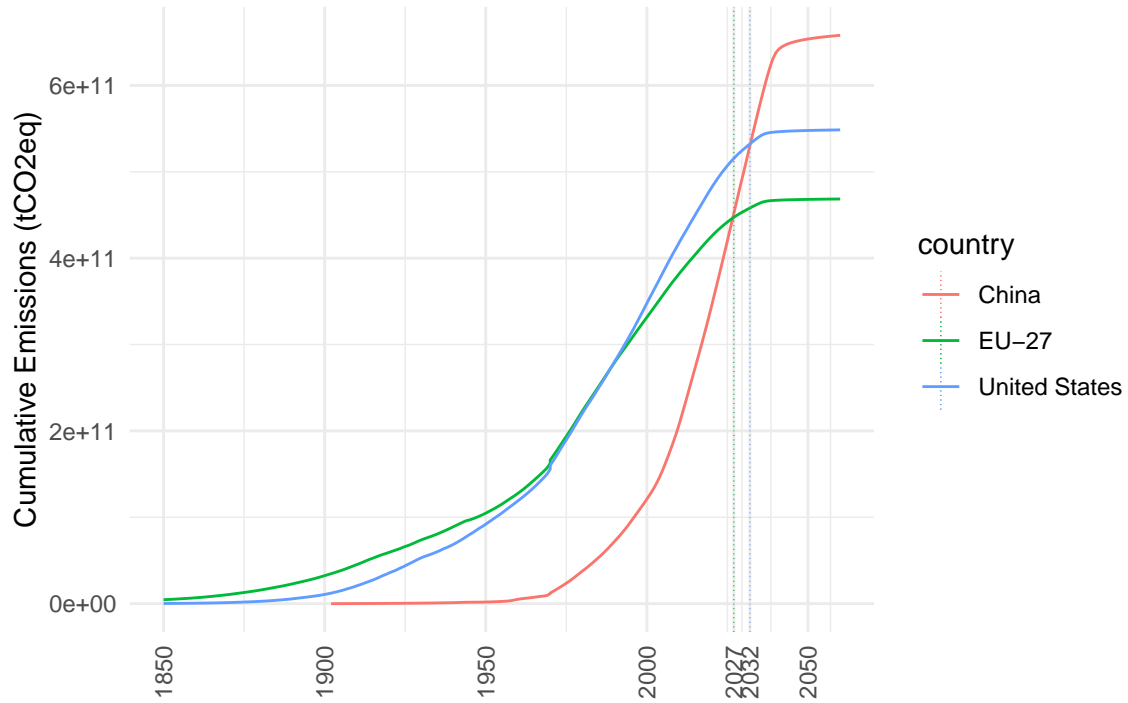


Figure 3.1: Label TEst

- Loaded via a namespace (and not attached): assertthat 0.2.1, backports 1.4.1, bibtex 0.5.0, broom 1.0.1, cellranger 1.1.0, class 7.3-20, classInt 0.4-8, cli 3.4.0, colorspace 2.0-3, compiler 4.2.1, countrycode 1.4.0, crayon 1.5.1, curl 4.3.2, data.table 1.14.2, DBI 1.1.3, dbplyr 2.2.1, digest 0.6.29, e1071 1.7-11, ellipsis 0.3.2, evaluate 0.16, fansi 1.0.3, farver 2.1.1, fastmap 1.1.0, forecast 8.18, fracdiff 1.5-2, fs 1.5.2, gargle 1.2.1, generics 0.1.3, ggtext 0.1.2, glue 1.6.2, googledrive 2.0.0, googlesheets4 1.0.1, grid 4.2.1, gridtext 0.1.5, gtable 0.3.1, haven 2.5.1, here 1.0.1, highr 0.9, hms 1.1.2, htmltools 0.5.3, htmlwidgets 1.5.4, httr 1.4.4, jsonlite 1.8.0, KernSmooth 2.23-20, knitr 1.40, labeling 0.4.2, lattice 0.20-45, lazyeval 0.2.2, lifecycle 1.0.2, lmtest 0.9-40, lubridate 1.8.0, modelr 0.1.9, munsell 0.5.0, nlme 3.1-157, nnet 7.3-17, parallel 4.2.1, pillar 1.8.1, pkgconfig 2.0.3, plyr 1.8.7, proxy 0.4-27, quadprog 1.5-8, quantmod 0.4.20, R6 2.5.1, Rcpp 1.0.9, RefManageR 1.4.0, regions 0.1.8, reprex 2.0.2, rlang 1.0.5, rmarkdown 2.16, rprojroot 2.0.3, rstudioapi 0.14, rvest 1.0.3, scales 1.2.1, stinepack 1.4, stringi 1.7.8, svglite 2.1.0, systemfonts 1.0.4, tidysselect 1.1.2, timeDate 4021.104, tools 4.2.1, tseries 0.10-52, TTR 0.24.3, tzdb 0.3.0, urca 1.3-3, utf8 1.2.2, vctrs 0.4.1, viridisLite 0.4.1, webshot 0.5.3, withr 2.5.0, xfun 0.33, xml2 1.3.3, xts 0.12.2, yaml 2.3.5, zip 2.2.1, zoo 1.8-11

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