README for the Reproducibility Package for

The Changing Wealth of Nations 2024

Towards a more complete accounting of wealth

The enclosed data and code replicate the figures from *The Changing Wealth of Nations 2024* (CWON 2024). The CWON program is a pioneering effort in wealth measurement, producing the most comprehensive wealth database currently available. This 5th edition adheres to international best practices for computing wealth in real terms by adopting a volume-based Tornqvist index to estimate yearly, country-level wealth data. This document provides guidelines for the reproducibility package, detailing how to generate wealth estimates from the inputs listed in the methodology document. Some of the CWON input data is subscription based or restricted and cannot be published in its raw form due to contractual and terms of use agreements. For further details on the CWON 2024 data, contact Hyungju Kim (hkim32@worldbank.org).

The methodology document for CWON 2024 is available here.

Software Requirements

➔ Stata 18.0 or above
➔ All dependency files are included in the folder "do/ado". They are loaded automatically in each main do-file of the reproducibility package.

Folder and File Descriptions

Charts: 'charts_master.do' calls the do-files from 'Do' folder to produce data and figures in the CWON 2024 report.

➔ **Output:** contains figures and tables produced from 'charts_master.do'.
➔ **Do:** Stata do-files and Excel files used to produce the figures in the CWON 2024 report.

Do: Stata do-files used in 'Wealth_master_updater.do' to produce final data.

➔ hc: this folder manages the human capital data. 'hc_master.do' produces the human capital data ('ILO_employment.dta') which is used in the final calculation.

Input: These are the raw input data for all assets collected from various sources.

Maps: Shapefiles used to create figures in the charts folder.

Output: data outputs produced from the master do file.

➔ **Archive:** general macro-economic data used in calculations

➔ **Latest:** individual indicators

Working: Intermediate/working data files.

➔ Final output of CWON data, 'real_wealth_chained_tornqvist_national.dta', is also in this folder.

Wealth_master_updater.do: Master do-file for the final CWON data.

➔ **Main output:** 'real_wealth_chained_tornqvist_national.dta' in the Working folder. This data file contains the annual country-level wealth for the years 1995-2020, measured in either real chained 2019 US$ or current US$.

Reproduction instructions:

* Note: {home} = directory where the folder, Reproducibility Package, is located. Before running the five main do-files you need to change the "home" directory to where the Reproducibility Package folder is located.

Wealth data estimation using volume-based Tornqvist index

Some data are not included in the reproducibility package due to access restrictions. Steps 1-4 require full access to the data.

1. Run "${home}/Do/hc/hc_master.do", this will produce the human capital data ("ILO_employment.dta") in the folder: "${home}/Do/hc/output".
   ➔ An additional copy of this file is saved into the folder: "${home}/Working". We call-in this human capital data in step 2.
2. Run "${home}/do/pk_urban_new.do".
   ➔ This will create "${home}/Working/pk_urban_pop.dta"
3. Run "${home}/do/ energy_oil_rystad.do".
   ➔ This will create "${home}/Working/ end_oil_unit_cost_revenue_yearly_rystad.dta"
4. Run "${home}/Wealth_master_update.do" after changing the file path of the home directory.
   ➔ This will create "${home}/Working/real_wealth_chained_tornqvist_national.dta", among other outputs needed to reproduce the charts in the next step.

Reproducing charts and tables in the CWON 2024 report

The reproduction of tables 6.2, 6.3, 6.4, and figures 9.3.1, and 9.3.2 requires full access to the data. The code to reproduce these exhibits is included but it is deactivated (see lines 30-125 and 190-249 of "${home}/Charts/Do/ch6_charts.do" and lines 348-710 of "${home}/Charts/Do/ch9_charts.do"). The materials in the reproducibility package allow users to reproduce all other exhibits by following these instructions.

1. Run "${home}/Charts/charts_master.do".
   ➔ This calls in the do-files from "${home}/Charts/Do" that produce charts in each chapter.
   ➔ Within each do-file, there are lines/comments that explain how numbers are acquired in some tables and figures that require manual steps. This is also explained in the next subsection.
   ➔ Figures and tables are stored in "${home}/Charts/Output".

Charts and tables that require manual steps

Exhibit	Code to run	Reproduction instructions
Figure 3.12 – Panel A	ch9_charts.do, lines 255-309	Same instructions as for Figure 9.4 – Panel A
Figure 3.12 – Panel B	ch9_charts.do, lines 313-336	Same instructions as for Figure 9.4 – Panel B
Figure 7.1	ch7_charts.do, lines 30-36	Copy and paste columns "ncw_cd", "agland_cd", "timber_cd", "forest_es1_cd", "forest_es2_cd", and "forest_es3_cd" for all years into sheet "Figure 7.1" of "${home}/Charts/Do/ch7_charts.xls".
Figure 7.2	ch7_charts.do, lines 43-66	Copy and paste columns "agland_index", "timber_index", "forest_es1_index", "forest_es2_index", and "forest_es3_index" for all years into sheet "Figure 7.2" of "${home}/Charts/Do/ch7_charts.xls".
Figure 7.3	ch7_charts.do, lines 73-89	Copy and paste the dataframe into cells C2-AO15 of sheet "Figure 7.3" of "${home}/Charts/Do/ch7_charts.xls".
Figure 7.5	ch7_charts.do, lines 96-104	In the file "${home}/Charts/Do/ch7_charts.xls", sheet "Figure 7.5"; replace cells C2-E8 with Stata rows 1-7 (columns 3-5), and replace I2-K8 with Stata rows 8-14 (columns 3-5).
Figure 7.6	ch7_charts.do, lines 111-128	In the file "${home}/Charts/Do/ch7_charts.xls", sheet "Figure 7.6"; replace cells C2-E15 with Stata rows 1-14 (columns 5-7). Then, replace cells A30-E43 with Stata columns 3-7.
Figure 7.8	ch7_charts.do, lines 134-150	In the file "${home}/Charts/Do/ch7_charts.xls", sheet "Figure 7.8"; replace cells C2-AO9 with the values in column 3 onwards.
Figure 7.9	ch7_charts.do, lines 157-177	In the file "${home}/Charts/Do/ch7_charts.xls", sheet "Figure 7.9"; replace cells B2-B20 with Stata rows 1-19 (column 4: "land_share"), and replace cells C2-C20 with Stata rows 20-38 (column 4: "land_share").
Table 7.1	ch7_charts.do, lines 184-192	In the file "${home}/Charts/Do/ch7_charts.xls", sheet "Table 7.1"; replace cells C2-D13 with Stata rows 1-12 (column 3-4: "land" & "forest_area_km").
Figure 9.1	ch9_charts.do, lines 92-128	In the file "${home}/Charts/Do/ch9_charts.xls", sheet "Figure 9.1"; replace cells C3-C7 with Stata column 2 (variable "hc_growth")
Figure 9.4 – Panel A	ch9_charts.do, lines 255-309	In the file "${home}/Charts/Do/ch9_charts.xls", sheet "Figure 9.4"; replace cells C8-H12 with Stata columns 2-7 (variables "hc_male_share…"); replace cells J8-O12 with Stata columns 8-13 (variables "hc_female_share…"); replace cells C6-H6 with any row of Stata columns 14-19 ("hc_male_world_share…"); and replace cells J6-O6 with any row of Stata columns 20-25 ("hc_female_world_share…").
Figure 9.4 – Panel B	ch9_charts.do, lines 313-336	In the excel file "${home}/Charts/Do/ch9_charts.xls", sheet "Figure 9.4"; replace cells C14-H20 with Stata columns 2-7 (variables "hc_male_share…"); and replace cells J14-O20 with Stata columns 8 - 13 (variables "hc_female_share…").
Table 9.3	ch9_charts.do	Instructions for figures 9.4 – Panel A and 9.4 – Panel B automatically update Table 9.3 in the sheet "Table 9.3" of the file "${home}/Charts/Do/ch9_charts.xls".

Datasets

Folder: Input > User_update / Predefined / Other

Input datasets for each asset are as follows:

Non-renewables

Dataset	Provided	Use in CWON Component	Located at
Rystad Energy – Rystad UCUBE (Upstream Database)	No	Production of oil and natural gas	Input/Predefined/ - end_gas_economics_rystad.csv - end_gas_economics_rystad_old_2020.csv - end_gas_government_take_rystad.csv - end_gas_government_take_rystad_old_2020.csv - end_gas_production_rystad.csv - end_gas_production_rystad_old_2020.csv - end_oil_economics_condensates_rystad.csv - end_oil_economics_condensates_rystad1.csv - end_oil_economics_condensates_rystad_diff.csv - end_oil_economics_condensates_rystad_old_2020.csv - end_oil_economics_crude_rystad.csv - end_oil_economics_crude_rystad_old_2020.csv - end_oil_government_take_condensates_rystad.csv - end_oil_government_take_condensates_rystad_old_2020.csv - end_oil_government_take_crude_rystad.csv - end_oil_government_take_crude_rystad_old_2020.csv - end_oil_production_condensates_rystad.csv - end_oil_production_condensates_rystad_old_2020.csv - end_oil_production_crude_rystad.csv - end_oil_production_crude_rystad_old_2020.csv
International Energy Agency (IEA) – IEA World Energy Statistics Database	No	Production of oil and natural gas Production of coal Unit price of coal Average net calorific value of coal production Energy conversion factors	Input/Predefined/ - end_coal_iea_aus_reference_coking_coal_price.csv Input/User_update/ - end_coal_iea_aus_coking_coal_ncv_exports.csv - end_iea_conversion_factors_all.csv - end_iea_production_all.csv
Energy Institute – Statistical Review of World Energy	Yes	Production of oil and natural gas Proved reserves of oil and natural gas Production of coal Proved reserves of coal	Input/Predefined/ - end_gas_depletion_time_old.csv - end_gas_depletion_time_old_2014.dta - end_gas_depletion_time_old_2015.dta - end_gas_depletion_time_old_2016.dta

			- end_gas_depletion_time_old_2017.dta - end_gas_depletion_time_old_2018.dta - end_gas_depletion_time_old_2019.dta - end_gas_depletion_time_old_2020.dta - end_gas_depletion_time_old_2021.dta - end_gas_depletion_time_old_2022.dta - end_oil_deplete_time_old.csv - end_oil_deplete_time_old.xlsx - end_oil_depletion_time_old_2014.dta - end_oil_depletion_time_old_2015.dta - end_oil_depletion_time_old_2016.dta - end_oil_depletion_time_old_2017.dta - end_oil_depletion_time_old_2018.dta - end_oil_depletion_time_old_2019.dta - end_oil_depletion_time_old_2020.dta - end_oil_depletion_time_old_2021.dta - end_oil_depletion_time_old_2022.dta Input/User_update/ - Coal Production - Energy Institute.xlsx - Coal Reserves - Energy Institute.xlsx - end_gas_production_bp.csv - end_gas_production_regional_bp.csv - end_gas_reserves_bp.csv - end_gas_reserves_regional_bp.csv - end_oil_production_bp.csv - end_oil_production_regional_bp.csv - end_oil_reserves_bp.csv - end_oil_reserves_regional_bp.csv
US Energy Information Administration – International Energy Statistics	Yes	Production of oil and natural gas Proved reserves of oil and natural gas Production of coal Proved reserves of coal	Input/Predefined/ - end_coal_us_eia_brwn_coal_production_old.csv - end_coal_us_eia_hard_coal_production_old.csv Input/User_update/ - end_coal_us_eia_anth_coal_production.csv - end_coal_us_eia_bitc_coal_production.csv - end_coal_us_eia_brwn_coal_production.csv - end_coal_us_eia_coke_coal_production.csv - end_coal_us_eia_hard_coal_production.csv - end_coal_us_eia_lign_coal_production.csv - end_coal_us_eia_reserves_brwn_coal.csv - end_coal_us_eia_reserves_hard_coal.csv - end_coal_us_eia_reserves_total_coal.csv - end_coal_us_eia_subb_coal_production.csv

			- end_gas_production_us_eia.csv - end_gas_reserves_us_eia.csv - end_oil_production_us_eia.csv - end_oil_reserves_us_eia.csv
UN Statistics Division – UN Monthly Bulletin of Statistics	Yes	Production of oil and natural gas Production of coal	Input/User_update/ - end_coal_unmbs_brwn_coal_production.csv - end_coal_unmbs_hard_coal_production.csv - end_gas_production_unmbs.csv - end_oil_production_unmbs.csv
Wood Mackenzie – Global Economic Model (GEM) database	No	Unit production cost of coal Unit price of coal	Input/Predefined/ - end_brwn_coal_production_costs_old.dta - end_coal_woodmac_capex.dta - end_coal_woodmac_inflation.dta - end_coal_woodmac_opex.dta - end_coal_woodmac_price_met.dta - end_coal_woodmac_price_met_avg.dta - end_coal_woodmac_price_therm.dta - end_coal_woodmac_price_therm_avg.dta - end_coal_woodmac_prod_met.dta - end_coal_woodmac_prod_therm.dta - end_coal_woodmac_refprice.dta - end_coal_woodmac_res_met.dta - end_coal_woodmac_res_therm.csv - end_coal_woodmac_rev.dta - end_coal_woodmac_totcash.dta
World Bank – Global Economic Monitor Commodities database	Yes	Unit production cost of coal Unit price of coal	Input/Predefined/ - end_coal_cost_study_old.xlsx - end_coal_cost_study_update.xlsx - end_coal_production_costs.xlsx - end_hard_coal_production_costs_old.dta
Government of Australia, Office of the Chief Economist, Department of Industry, Innovation and Science – Resources and Energy Quarterly	Yes	Unit price of coal	Input/User_update - end_coal_aus_monthly_met_coal_euv.csv
US Geological Survey – Minerals Yearbook, Vol. I: Metals and Minerals	Yes	Production of metals and minerals	Input/Other/ - Cobalt/Fields_extracted_Cobalt.xls - Cobalt/Fields_extracted_Cobalt_back_up.xls - Cobalt/Old/Fields_extracted_Cobalt.xls - Copper/Fields_extracted_Copper.xls

			- Copper/Fields_extracted_Copper_old.xls
			- Gold/Fields_extracted_Gold.xls
			- Gold/Fields_extracted_Gold_old.xls
			- Ironore/Fields_extracted_concentrate.xlsx
			- Ironore/Fields_extracted_fines.xlsx
			- Ironore/Fields_extracted_lump.xlsx
			- Ironore/Fields_extracted_pri_pellets.xlsx
			- Ironore/Fields_extracted_sec_pellets.xlsx
			- Lithium/Fields_extracted_lithium_carbonate_LCE.xlsx
			- Lithium/Fields_extracted_lithium_chloride.xlsx
			- Lithium/Fields_extracted_lithium_chloride_LCE.xlsx
			- Lithium/Fields_extracted_lithium_concentrate.xlsx
			- Lithium/Fields_extracted_lithium_concentrate_LCE.xlsx
			- Lithium/Fields_extracted_lithium_hydroxide.xlsx
			- Lithium/Fields_extracted_lithium_hydroxide_LCE.xlsx
			- Lithium/Archive/Fields_extracted_lithium_carbonate.xlsx
			- Lithium/Archive/Fields_extracted_lithium_hydroxide_LCE.xls
			- Lithium/Archive/Fields_extracted_lithium_hydroxide_LCE.xlsx
			- Lithium/Archive/Fields_extracted_lithium_hydroxide_LCE_new.xlsx
			- Lithium/Reserves and resources/Fields_extracted_lithium_reserves.xls
			- Lithium/Reserves and resources/Fields_extracted_lithium_reserves.xlsx
			- Molybdenum/Fields_extracted_Molybdenum.xls
			- Molybdenum/Fields_extracted_Molybdenum.xlsx
			- Nickel/Fields_extracted_Nickel.xls
			- Nickel/Fields_extracted_Nickel_old.xls
			- Palladium/Fields_extracted_Palladium.xls
			- Platinum/Fields_extracted_Platinum.xls
			- Rhodium/Fields_extracted_Rhodium.xls
			- Silver/Fields_extracted_Silver.xls
			- Silver/Fields_extracted_Silver_old.xls
			- U308/Fields_extracted_U308.xls
			- Zinc/Fields_extracted_Zinc.xls
British Geological Survey – World Mineral Statistics	No	Production of metals and minerals Production costs of metals and minerals Prices of metals and minerals	Input/Other/ - S&P_CobaltY2020_1991TM.xlsx - Cobalt/Cobalt_capex.xlsx - Cobalt/Cobalt_costs.xlsx - Cobalt/Cobalt_S&Pdata.xlsx - Cobalt/S&P_CobaltY2020_1991CAPEX.xlsx - Cobalt/SPGlobalofficeworkbook_production_share_Cobalt.xls - Copper/Copper_capex.xlsx - Copper/Copper_costs.xlsx - Copper/S&P_CopperY2020_1991CAPEX.xlsx

- Copper/SPGlobalofficeworkbook_production_share_Copper.xls
- Gold/Gold_costs.xlsx
- Gold/Gold_y1999_1991_capex.xlsx
- Gold/Gold_y2009_2000_capex.xlsx
- Gold/Gold_y2020_2010_capex.xlsx
- Gold/S&P_GoldY2009-2000CAPEX.xlsx
- Gold/SPGlobalofficeworkbook_production_share_Gold.xls
- Ironore/Iron_concentrate_capex.xlsx
- Ironore/Iron_concentrate_costs_2.xlsx
- Ironore/Iron_fines_capex.xlsx
- Ironore/Iron_fines_costs_2.xlsx
- Ironore/Iron_lump_capex.xlsx
- Ironore/Iron_lump_costs_2.xlsx
- Ironore/Iron_pri_pellets_capex.xlsx
- Ironore/Iron_pri_pellets_costs_2.xlsx
- Ironore/Iron_sec_pellets_capex.xlsx
- Ironore/Iron_sec_pellets_costs_2.xlsx
- Ironore/S&P_IronfinesY2020_1991CAPEX.xlsx
- Ironore/S&P_IronlumpY2020_1991CAPEX.xlsx
- Ironore/S&P_Ironpri_pelletsY2020_1991CAPEX.xlsx
- Ironore/Production
  share(reported)/SPGlobalofficeworkbook_production_share_Ironorecfrspot.xlsx
- Ironore/Production
  share(reported)/SPGlobalofficeworkbook_production_share_Ironorecfrspot_new_xls_testonly.xlsx
- Ironore/Reserve&Resource_Iron_ore/Reserve&Resources_Iron_ore.xls
- Lead/Fields_extracted_Lead.xls
- Lead/Fields_extracted_Lead_old.xls
- Lead/Lead_capex.xlsx
- Lead/Lead_costs.xlsx
- Lead/S&P_LeadY2020_1991CAPEX.xlsx
- Lead/SPGlobalofficeworkbook_production_share_Lead.xls
- Lithium/Lithium_carbonate_costs.xlsx
- Lithium/Lithium_chloride_costs.xlsx
- Lithium/Lithium_concentrate_costs.xlsx
- Lithium/Lithium_hydroxide_costs.xlsx
- Lithium/SPGlobalofficeworkbook_production_share_Lithium.xls
- Lithium/SPGlobal_LithiumConcentrate_Carbonate_%_LCE.xls
- Lithium/SPGlobal_LithiumHydroxide_Chloride_%_LCE.xls
- Lithium/Archive/LithiumCarbonate_S&Pdata.xlsx
- Lithium/Archive/LithiumChloride_S&Pdata.xlsx
- Lithium/Archive/LithiumConcentrate_S&Pdata.xlsx
- Lithium/Archive/LithiumHydroxide_S&Pdata.xlsx

			- Lithium/Archive/Lithium_CarbonateVerified_S&Pdata.xlsx
			- Lithium/Archive/Lithium_ChlorideVerified_S&Pdata.xlsx
			- Lithium/Archive/Lithium_ConcentrateVerified_S&Pdata.xlsx
			- Lithium/Archive/Lithium_HydroxideVerified_S&Pdata.xlsx
			- Lithium/Archive/S&P_LithiumCarbonateY2020_1991CAPEX.xlsx
			- Lithium/Archive/S&P_LithiumChlorideY2020_1991CAPEX.xlsx
			- Lithium/Archive/S&P_LithiumConcentrateY2020_1991CAPEX.xlsx
			- Lithium/Archive/S&P_LithiumHydroxideY2020_1991CAPEX.xlsx
			- Lithium/Archive/SPGlobal_Lithium_EconData_(2020_1995).xlsx
			- Lithium/Archive/SPGlobal_Lithium_EconData_2020_1991_LCE.xlsx
			- Lithium/Production share/SPGlobal_Lithium_EconData_(2020_1995).xlsx
			- Molybdenum/Molybdenum_capex.xlsx
			- Molybdenum/Molybdenum_costs.xlsx
			- Molybdenum/SPGlobalofficeworkbook_production_share_Molybdenum.xls
			- Nickel/Nickel_capex.xlsx
			- Nickel/Nickel_costs.xlsx
			- Nickel/S&P_NickelY2020_1991CAPEX.xlsx
			- Nickel/SPGlobalofficeworkbook_production_share_Nickel.xls
			- Palladium/SPGlobalofficeworkbook_production_share_Palladium.xls
			- Platinum/Platinum_capex.xlsx
			- Platinum/Platinum_costs.xlsx
			- Platinum/SPGlobalofficeworkbook_production_share_Platinum.xls
			- Rhodium/SPGlobalofficeworkbook_production_share_Rhodium.xls
			- Silver/S&P_SilverY2020_1991CAPEX.xlsx
			- Silver/Silver_capex.xlsx
			- Silver/Silver_costs.xlsx
			- Silver/SPGlobalofficeworkbook_production_share_Silver.xls
			- U308/SPGlobalofficeworkbook_production_share_U308.xls
			- Zinc/SPGlobalofficeworkbook_production_share_Zinc.xls
			- Zinc/Zinc_capex.xlsx
			- Zinc/Zinc_costs.xlsx

Renewables

Dataset	Provided	Use in CWON Component	Located at
UN Food and Agricultural Organization (FAO) – FAOSTAT	Yes	Roundwood production Roundwood export volume Roundwood export value Prices for crop and livestock products Production of crop and livestock products Fisheries catch data	Input/Predefined/ - EconRent_Analysis_AllYears.dta - fishstock_data_july2023.dta - for_faostat_production_trade_cleaned_old_2015.dta - for_faostat_production_trade_cleaned_old_2016.dta - for_faostat_production_trade_cleaned_old_2017.dta

		Fisheries stock	- for_faostat_production_trade_cleaned_old_2018.dta - for_faostat_production_trade_cleaned_old_2019.dta - for_faostat_production_trade_cleaned_old_2020.dta - for_faostat_production_trade_cleaned_old_2021.dta - for_faostat_production_trade_cleaned_old_2022.dta - land_animal_list.csv - land_crop_list.csv - land_ef_regional_cropland_rental_rates.csv - land_ef_regional_cropland_rental_rates_new.csv - land_fao_animal_production_old.csv - land_fao_crop_production_old.csv - land_fao_percent_meat_in_grazing_systems.csv - land_fao_producer_prices_old.csv - land_fao_production_value_old.csv Input/User_update/ - EconRent_Analysis_AllYears.dta - land_fao_animal_production.csv - land_fao_crop_animal_trade.csv - land_fao_crop_production.csv - land_fao_producer_prices.csv - land_fao_production_value 02142019.csv - land_fao_production_value.csv - for_faostat_forestry_production_trade.csv
UN Food and Agricultural Organization (FAO) – Global Forest Resources Assessment 2020	Yes	Total forest area Production forest area Multiple use forest area Net annual increment of forest area Growing stock of timber	Input/Predefined/ - for_fra2010_growing_stock.csv - for_fra2010_productive_area.csv - for_fra2010_total_forest_area.csv - for_nontimber_country_values.dta - for_nontimber_value.csv - for_nontimber_value_ORIGINAL.csv Input/User_update/ - for_commercial_increment.csv - for_faostat_forestry_production_trade.csv - for_fao_fra2015_bulk_download.csv - for_fao_fra2020_bulk_download.csv - for_fao_fra2020_bulk_download_incr2015.csv
Protected Planet – World Database on Protected Areas	No	Protected area boundaries	Input/Predefined/ - land_protectedarea_04162018.csv
Global Mangrove Watch –	No	Total mangrove area	Input/Predefined/ - Mangrove_country_data.csv - mangrove_shoreline_protection.xls

Dataset			Located at
Global Mangrove Watch Database			Input/User_update/ - mangrove_shoreline_protection.xls - V2_Mangrove_Carbon_Dataset_031023.xlsx
International Energy Agency (IEA) – IEA World Energy Prices Database	No	Hydropower, producer prices and costs	Input/User_update/ - Hydropower valuation_CWON 2024_rev1.xlsx - Hydropower valuation_CWON 2024_rev2.xlsx - Hydropower valuation_CWON 2024_rev4.xlsx - Hydropower valuation_CWON 2024_rev4_ss.xlsx
International Renewable Energy Agency (IRENA) – Energy prices database	No	Hydropower, generated quantities Hydropower, producer prices and costs	Input/User_update/ - Hydropower valuation_CWON 2024_rev1.xlsx - Hydropower valuation_CWON 2024_rev2.xlsx - Hydropower valuation_CWON 2024_rev4.xlsx - Hydropower valuation_CWON 2024_rev4_ss.xlsx

Produced Capital

Dataset	Provided	Use in CWON Component	Located at
University of Groningen – Penn World Table	Yes	Coastal assets at risk Produced capital stock Cost of fixed capital Labor share of earnings of the self-employed Total labor earnings	Input/Other/ - pwt90.dta - pwt90_capital_detail.dta - pwt90_labor_detail.dta - pwt91_labor_detail.dta Input/Predefined/ - cfc_combined_un_oecd_cfc_gdp_2015.dta - cfc_combined_un_oecd_cfc_gdp_2016.dta - cfc_combined_un_oecd_cfc_gdp_2017.dta - cfc_combined_un_oecd_cfc_gdp_2018.dta - cfc_combined_un_oecd_cfc_gdp_2019.dta - cfc_combined_un_oecd_cfc_gdp_2020.dta - cfc_combined_un_oecd_cfc_gdp_2021.dta - cfc_combined_un_oecd_cfc_gdp_2022.dta Input/User_update/ - cfc_oecd_national_accounts_cfc_gdp.csv - cfc_penn_world_table.csv - cfc_table_1_3_cfc.csv - cfc_table_1_3_gdp.csv - cfc_table_2_3_cfc.csv - cfc_table_2_3_gva.csv - cfc_table_2_3_other_sub.csv - cfc_table_2_3_other_tax.csv - cfc_table_2_3_sub_prod.csv

			- cfc_table_2_3_tax_prod.csv
			- cfc_table_2_6_cfc.csv
			- cfc_table_2_6_gva.csv
			- cfc_table_2_6_other_sub.csv
			- cfc_table_2_6_other_tax.csv
			- cfc_table_2_6_sub_prod.csv
			- cfc_table_2_6_tax_prod.csv
			- cfc_table_4_1_cfc.csv
			- cfc_table_4_1_gdp.csv
			- cfc_unsd_sna_main_aggregates_gva_structure.csv
			- pk_pwt_v100.csv
			- pwt100.dta
			- pwt1001-labor-detail.dta
			- pwt100_capital_detail.dta
			- pwt_10.01.xlsx
World Bank – World Development Indicators (WDI)	No, data is loaded by the code	Investment.	Data is loaded by the code using the Stata package *wbopendata*. Indicators used: gross fixed capital formation (current USD) (NE.GDI.FTOT.CD), GDP (current USD) (NY.GDP.MKTP.CD), exports of goods and services (current USD) (NE.EXP.GNFS.CD), imports of goods and services (current USD) (NE.IMP.GNFS.CD), final consumption expenditure (current USD) (NE.CON.TOTL.CD), gross capital formation (current USD)" (NE.GDI.TOTL.CD), consumer price index (2010=100) (FP.CPI.TOTL).

Foreign Assets/Liabilities

Dataset	Provided	Use in CWON Component	Located at
The Brookings Institution – The External Wealth of Nations Mark II database	No	Net Foreign Assets	Input/User_update/ - EWN-dataset_12-21-2021.xlsx - nfa_ewn_1970_2020.csv
International Monetary Fund (IMF) – Balance of Payments and International Investment Position Statistics (BOP/IIP) database	Yes	Financial assets Equity FDI Debt and liabilities Derivatives	Input/User_update/ - nfa_imf_ifs_cpis.csv - nfa_imf_ifs_iip.csv - nfa_imf_ifs_reserves.csv
International Monetary Fund (IMF) – Coordinated Portfolio Investment Survey (CPIS) database	Yes	Equity Debt and liabilities	Input/User_update/ - nfa_imf_ifs_cpis.csv

International Monetary Fund (IMF) – [International Financial Statistics](#)	Yes	Total financial reserves	Input/User_update/ - nfa_imf_ifs_iip.csv - nfa_imf_ifs_reserves.csv
UN Conference on Trade and Development (UNCTAD) – [UNCTADSTAT](#)	No	FDI	Input/User_update/ - nfa_unctad_inward_fdi.csv - nfa_unctad_outward_fdi.csv
Bank for International Settlements (BIS) – [Locational Banking Statistics](#)	Yes	Total liabilities and total claims in international settlements	Input/User_update/ - nfa_bis_locational_banking_bulk.csv
World Bank – [Joint External Debt Hub](#)	Yes	Debt Total reserves	Input/User_update/ - nfa_wb_jointhub_forex.csv
World Bank – [International Debt Statistics](#)	Yes	Debt	Input/User_update/ - nfa_wb_wdi_external_debt.csv

Human Capital

Dataset	Provided	Use in CWON Component	Located at
World Bank Jobs GP – Mincerian Annual Earnings	No. The data was provided internally to the CWON team.	Estimation of annual earnings by sex, age group, education attainment, and type of employment	Do/hc/input - Mincer_coeff_sample.dta
World Bank – [Global Labor Database](#)	A file with derived, aggregated data is included in the package.	Education attainment Employment rates School enrollment rates	Input/User_update/ - CWON - Human Capital from Stata.xlsx (aggregates of the original data)
ILO – [Employment rates](#)	A file with derived, aggregated data is included in the package.	Employment rates	Do/hc/input/ - ilo_employment.xls - CWON - Human Capital from Stata.xlsx (aggregates of the original data)
UN – [UN National Accounts database](#)	A file with derived, aggregated data is included in the package.	Compensation of Employees, GDP Total labor earnings	Input/User_update/ - CWON - Human Capital from Stata.xlsx (aggregates of the original data)
UN – [World Population Prospects](#)	A file with derived, aggregated data is included in the package.	Population by gender and age groups	Input/User_update/ - CWON - Human Capital from Stata.xlsx (aggregates of the original data)
Institute for Health Metrics and Evaluation – [Global Burden of Disease](#)	A file with derived, aggregated data is included in the package.	Population survival rates	Input/User_update/ - CWON - Human Capital from Stata.xlsx (aggregates of the original data)

Other datasets

Dataset	Provided	Located at
World Bank – World Bank official boundaries	Yes	Maps/ - Country_Polys.dbf - Country_Polys.shp - WB_CountryPolus.dbf - WB_CountryPolys.shp
OECD – List of OECD countries	Yes	Working/ - oecd.dta - general_oecd_membershi.pdta
World Bank – Classification of Fragile and Conflict-Affected Situations	Yes	Working/ - fcv_fy23_countries.dta

Main Outputs:

<u>Folder:</u> Working > **real_wealth_chained_tornqvist_national.dta**

→ This is the main output we use to produce figures in the CWON 2024 report. Variables are the value of each asset calculated in volume-based tornqivst index, measured in chained 2019 USD, and nominal values measured in current USD.

<u>Folder:</u> Output > Latest

→ Value of individual assets/indicators measured in current USD, constant 2020 USD, volume-based and PPP units.

<u>Folder:</u> Charts > Output

→ Figures and tables of the CWON 2024 report. Some tables and figures require manual steps to be reproduced, as described in page 3.