

Variable Name	Description	Unit	Transform	Role	Expected Sign
co2_per_capita	CO2 emissions per capita	metric ton	log used	Dependent	-
co2_intensity	CO2 emissions per unit of ratio	ratio	log used	Dependent	-
gdp_per_capita	GDP per capita	constant	log used	Main expl	+
gdp_per_capita_sq	Squared GDP per capita	construct	none	Non-linear	-
renewable_energy_share	Renewable energy share	%	none	Threshold	-
industry_share	Industry value added	% of GDP	none	Control	+
urbanization_rate	Urban population	%	none	Control	+/-
trade_openness	Trade openness	% of GDP	none	Control	+/-
governance_index	Institutional quality index	index	none	Control	-
energy_intensity	Energy use per GDP	ratio	log optic	Control	+

Source

Global Carbon Project / Our World in Data

World Bank / OWID

World Bank

Constructed

IEA / World Bank

World Bank

World Bank

World Bank

WGI

World Bank