

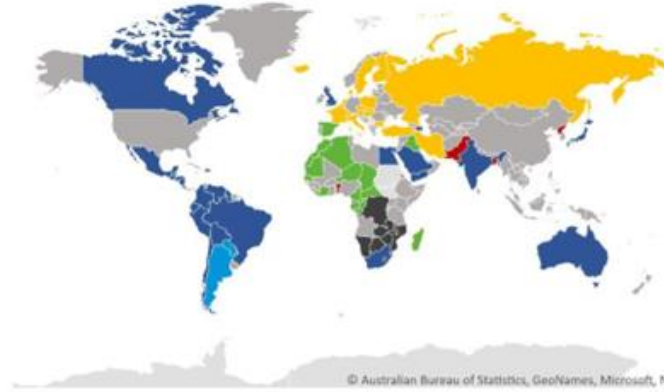
Alaska Senate Resources Committee

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April 15, 2024

TOP IMPORTER BY COUNTRY IN 2000

■ China ■ United States ■ Germany ■ South Africa ■ Brazil ■ France ■ Other



TOP IMPORTER BY COUNTRY IN 2013



TOP IMPORTER BY COUNTRY IN 2021



Source of data: BACI HS92 (1995-2021) and BACI HS17 (2017-2021)

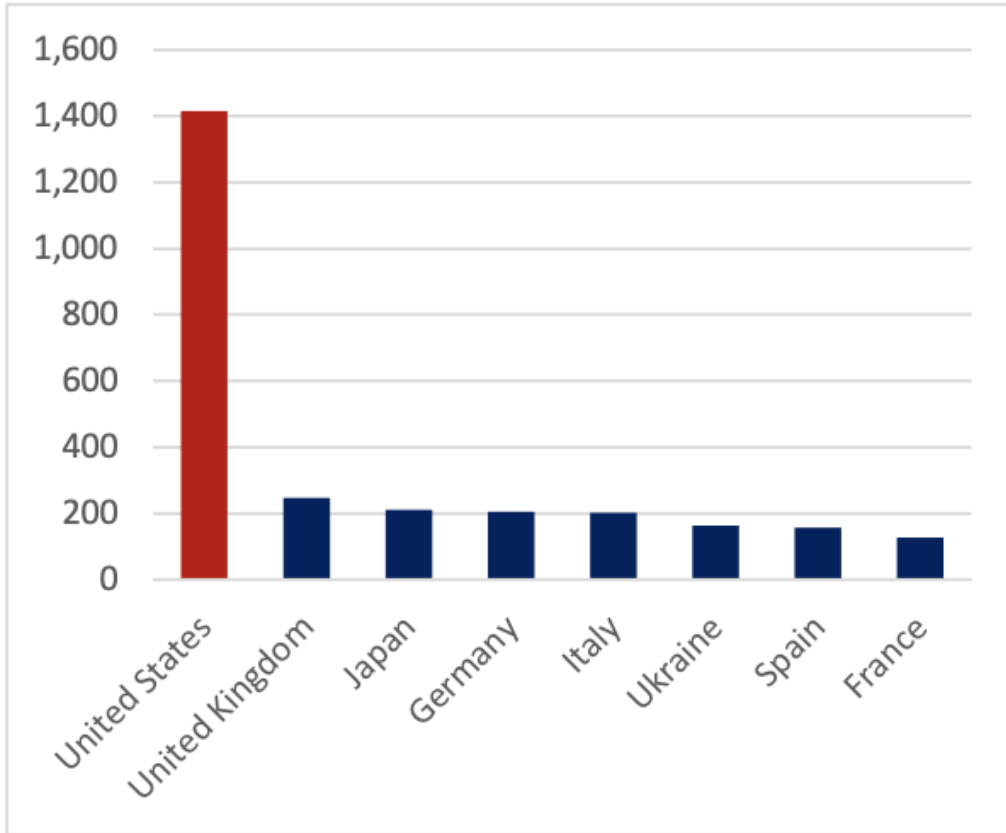
Production of selected minerals

	U.S. %	Chinese %	Russian %	Other
Aluminum	1%	57%	5%	36%
Cobalt	0%	1%	4%	94%
Copper	4%	38%	4%	54%
Lithium	-	14%	-	86%
Nickel	1%	4%	9%	86%
Selenium	-	37%	10%	53%
Tellurium	-	59%	12%	29%
Zinc	6%	32%	2%	60%
REE	15%	60%	1%	24%

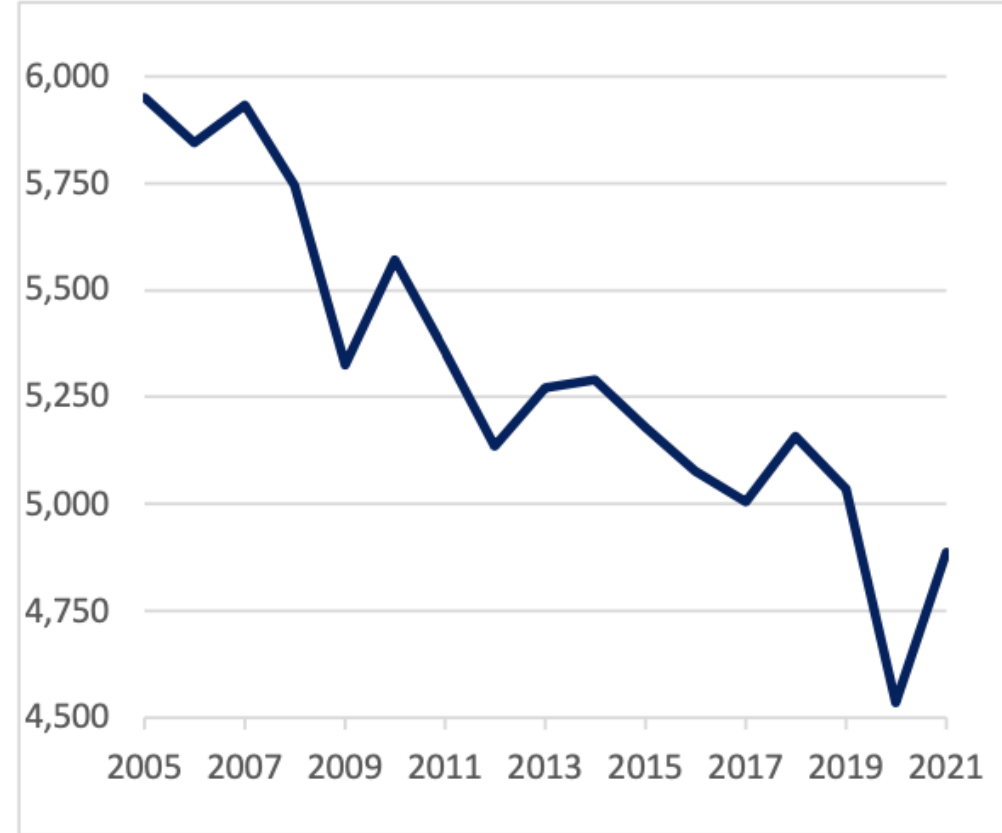
Chinese Controlled Production of Selected Minerals in Africa (2018)

	Chinese-controlled Production in Africa (Millions of US\$)	Total African Production (Millions of US\$)	Chinese Controlled Share of African Production (Millions of US\$)
Copper	2,902	10,300	28
Bauxite	1,318	1,600	82
Cobalt	901	2,200	41
Gold	544	30,600	12
Zinc	226	780	29
Uranium	163	400	40

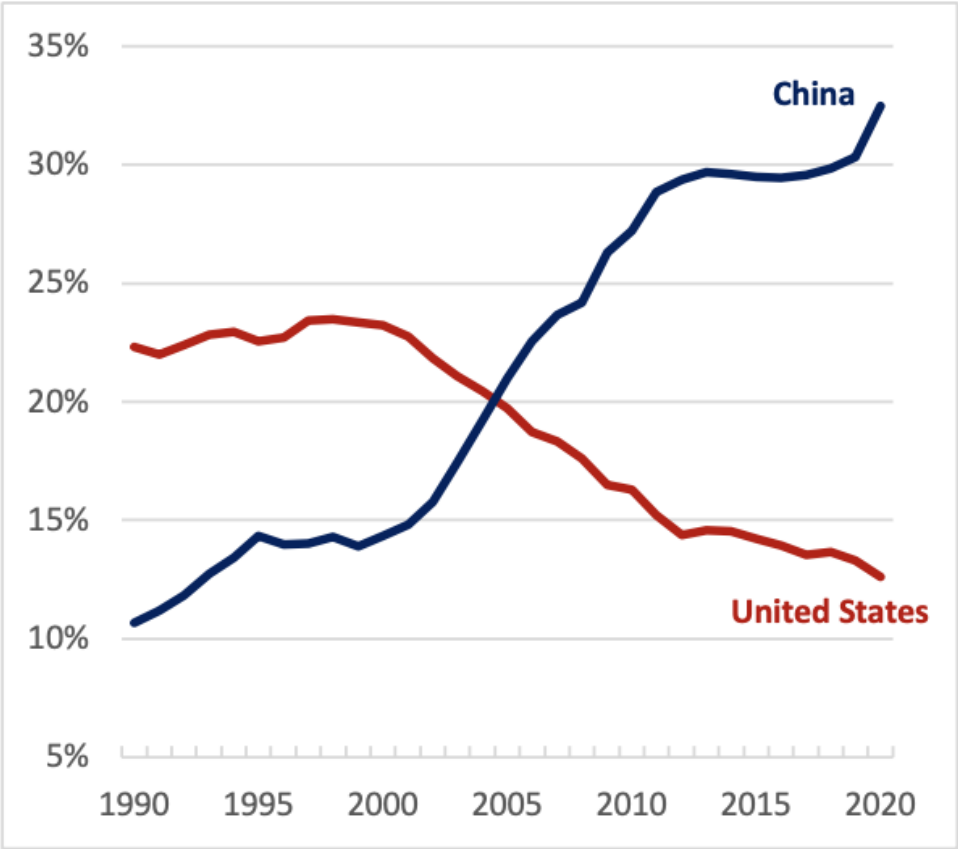
CO2 Emissions Reductions 2005 – 2020 (MMt)



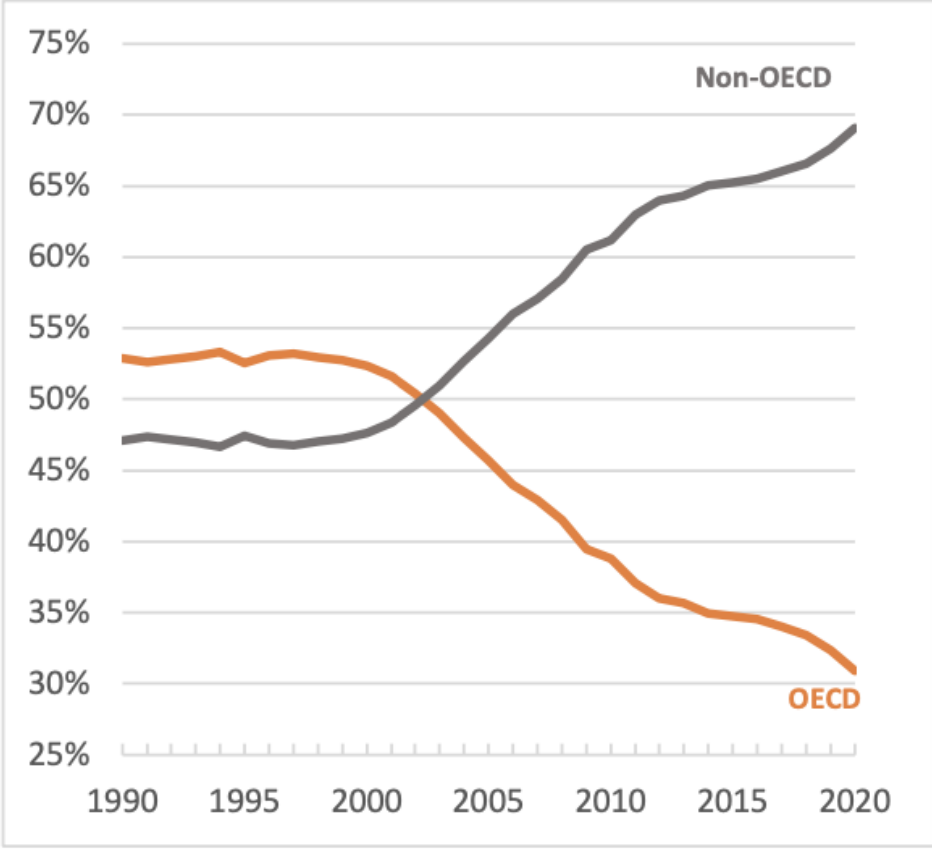
U.S. CO2 Emissions (MMt)



Global Share of CO2 Emissions, U.S. vs China



Global Share of CO2 Emissions, OECD vs non-OECD



Source of data: Olivier and Peters, and EDGAR.

America's carbon efficiency compared to select U.S. allies and China, agriculture, forestry, and mining sub-sectors

	United States	European Union	Canada	China
Agriculture, Forestry, and Fishing	1.0	1.2	1.4	1.2
Mining and Quarrying of Non-Energy Producing Products	1.0	0.8	1.6	2.2
Mining Support Services	1.0	1.9	1.5	5.2
Food Products	1.0	0.8	1.0	1.4
Wood and Products of Wood	1.0	0.9	1.3	1.8

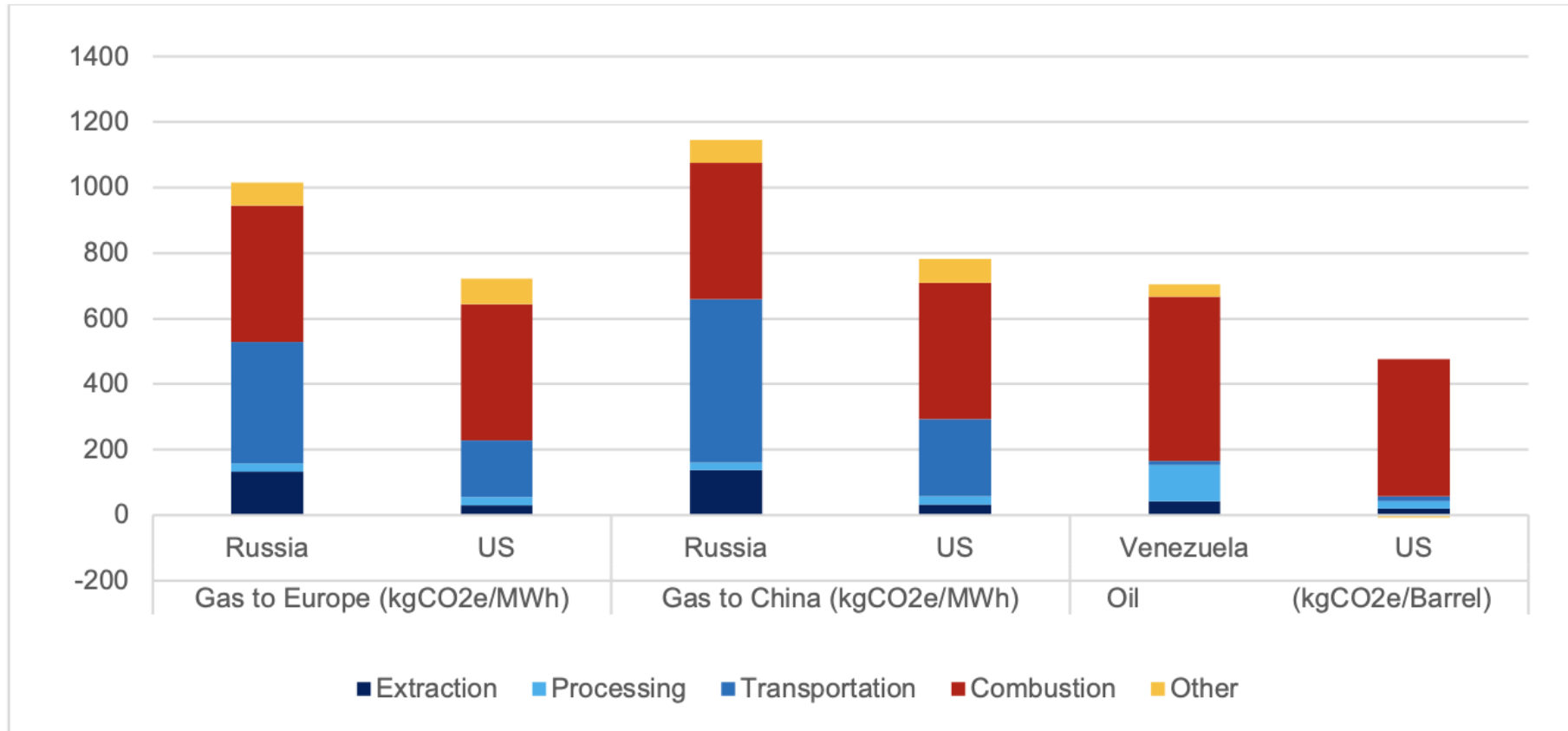
>1.0 indicates a U.S. advantage; <1.0 indicates a U.S. disadvantage. Data is from 2015.

America's carbon efficiency compared to select U.S. allies and China, agriculture, forestry, and mining sub-sectors

	United States	European Union	Canada	China
Paper Products	1.0	0.8	1.0	1.7
Fabricated Metal Products	1.0	0.9	0.9	3.1
Computer, Electronic, and Optical Products	1.0	2.1	2.3	5.7
Machinery and Equipment	1.0	0.8	0.9	2.8
Motor Vehicles	1.0	0.7	1.0	2.4

>1.0 indicates a U.S. advantage; <1.0 indicates a U.S. disadvantage. Data is from 2015.

20-year life-cycle emissions from fossil fuels, U.S. vs competitors



Comparison of methane emissions relative to coal production, 2015

	Russia	China	Australia	U.S.	World
Methane from Coal Mining Activities (MtCO₂e)	61.3	665.1	25.4	67.6	966.9
Coal Production (million tonnes oil equivalent)	184.5	1,827	275	455.2	3,830.1
Methane emissions per tonne of coal production (MtCO₂e)	0.332	0.364	0.092	0.149	0.252
Mining Emissions Relative to U.S. Production	123%	144%	-38%	N/A	69%