

Global Warming Gridlock

EES 3310/5310

Global Climate Change

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Class #39: Wed. Nov. 28 2018



Gridlock: Basic Outline

1. Science: CO₂ is a “stock pollutant”
2. Three myths:
 - a. Scientists’ myth: safe level = 2°C
 - b. Diplomats’ myth: universal treaties
 - c. Engineers’ myth: RE < C
3. Regulating emissions
 - Power, interests, capabilities
4. Investing in innovation
5. Bracing for change
6. New International Strategy

Gridlock: Basic Outline

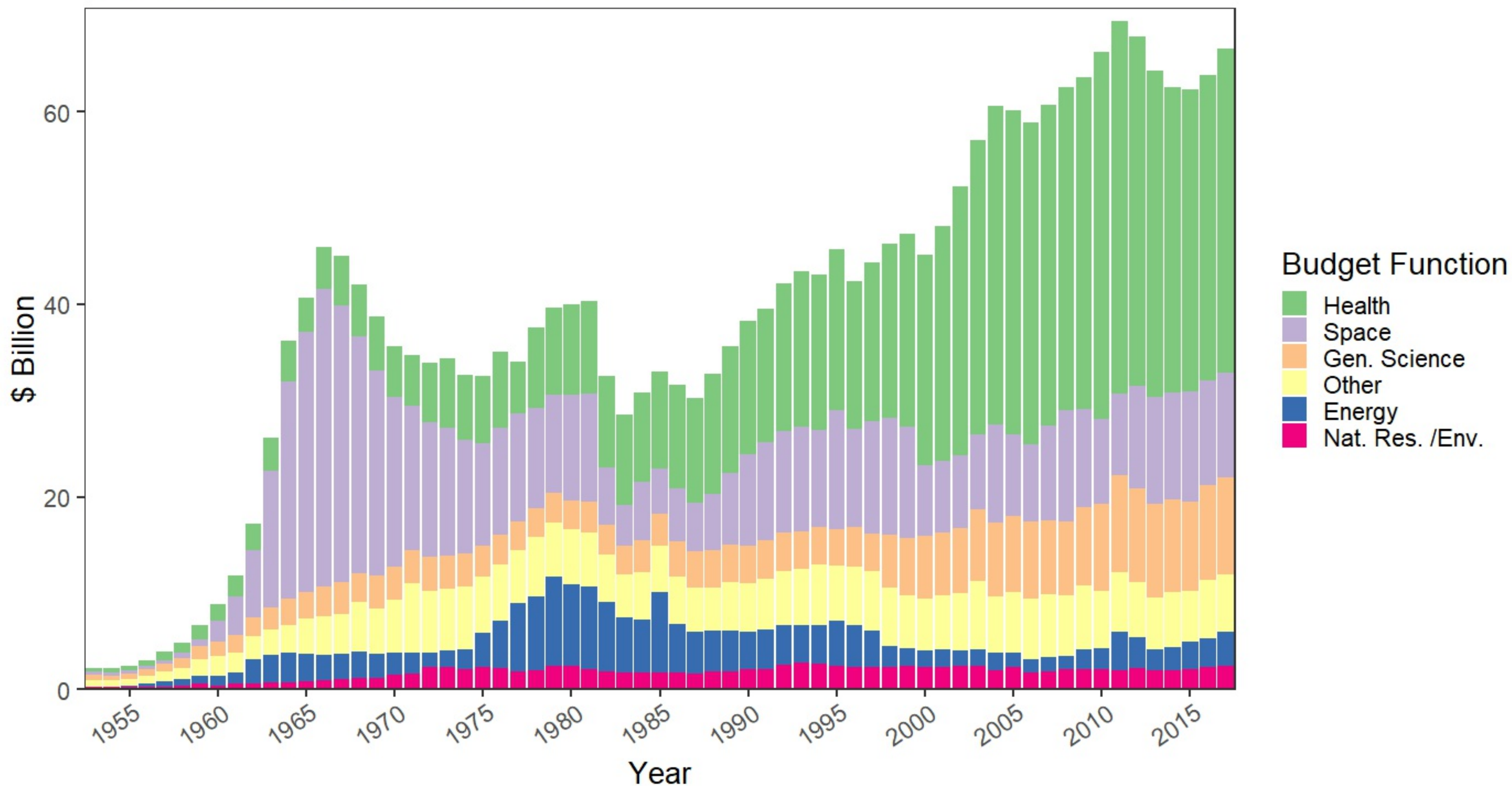
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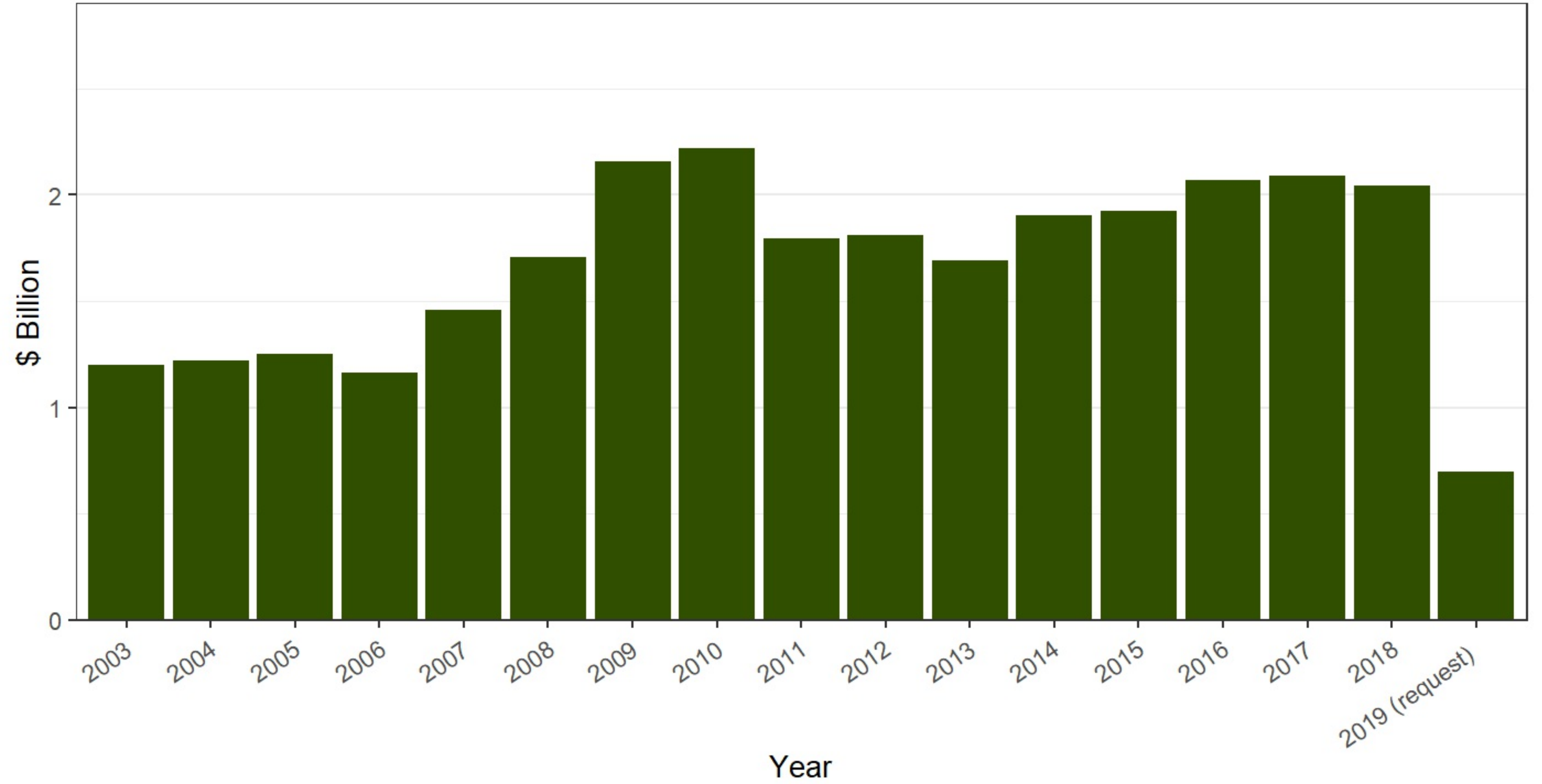
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Investing in Innovation

Non-Defense R&D 1953-2017



U.S. Energy Efficiency and Renewable Energy Budget



Federal Subsidies (2002-08)

FOSSIL FUELS
\$72.5 billion

RENEWABLE ENERGY
\$29.0 billion

\$2.3 billion
**CARBON CAPTURE
AND STORAGE***

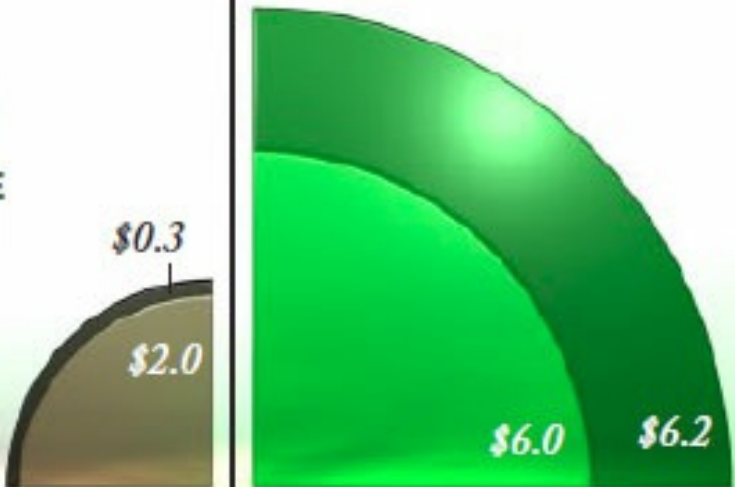
\$12.2 billion
**TRADITIONAL
RENEWABLES**

all subtotals in \$ billions

Tax breaks (outer ring) **\$53.9** **Direct spending** (inner circle) **\$16.3**

\$70.2 billion
**TRADITIONAL
FOSSIL FUELS**

\$5.0
\$11.8
\$16.8 billion
CORN ETHANOL**



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 - **Adaptation, geoengineering**
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6. **New International Strategy**

Fairness & Justice

- Corrective Justice
- Distributive Justice

U.S. TO GIVE \$3 BILLION TO CLIMATE FUND TO HELP POOR NATIONS AND SPUR RICH ONES

By CORAL DAVENPORT and MARK LANDLER

NY Times, Nov. 15, 2014, p. A5

Republicans ... are working to block the administration from funneling federal dollars to developing nations so they can tackle climate change.

By AMY HARDER and KRISTINA PETERSON

The Wall Street Journal, Nov. 27, 2015

GROWING CLAMOR ABOUT INEQUITIES OF CLIMATE CRISIS

RESTITUTION DEMANDED

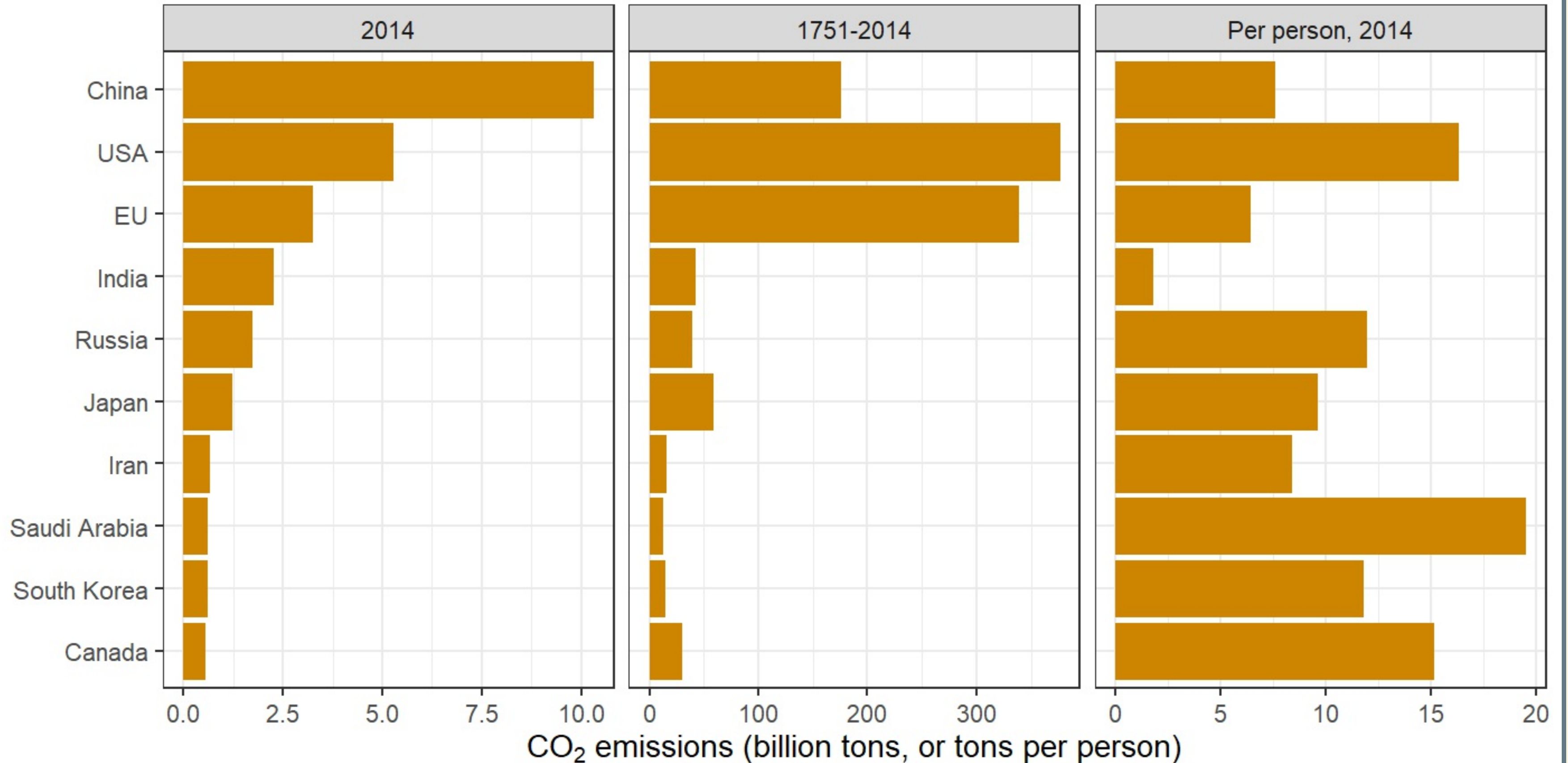
Typhoon Highlights Rift
as Poor Nations Fault
Rich for Damage

By STEVEN LEE MYERS
and NICHOLAS KULISH

NY Times, Nov. 17, 2013, p. A1

CO₂ emissions

Three different ways to compare emissions



12 Nations = 77% of emissions

1. China
2. **US**
3. **EU**
4. India
5. Brazil
6. **Japan**
7. **Canada**
8. **Australia**
9. Indonesia
10. S. Korea,
11. S. Africa,
12. Mexico

