The E.U. Eclipses the U.S.

Explaining the regulatory inversion & divergence of emissions standards

Deena El Hasan - Vladimir Mutafyan - John F. Porter III - PS 191A & PS 122C - W2023

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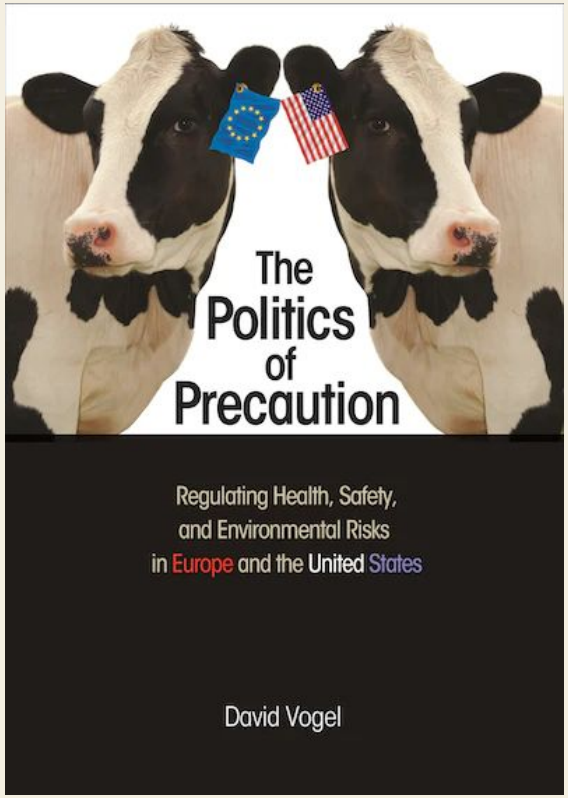


Hypothesis

Regulators' willingness to regulate on a precautionary basis accounts for the divergence and change in time we see

Precautionary Principle

Scientific View
Economic Cost-Benefit Analysis
Risk Assessments

Burden of Proof

Road Map

Definition of Terms

Comparative Analysis

- Tetraethyl Lead (Lead)
- Chlorofluorocarbons (CFCs)
- Carbon Dioxide (CO_2)

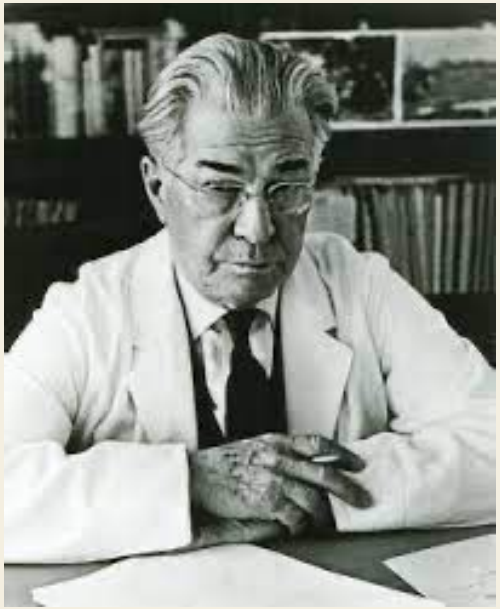
A New Era of Regulatory Politics

Definition of Terms

Regulators: Lawmakers and executive branch officials (bureaucrats and chief executives)

EU: European Economic Community, the European Community, and the modern EU

Science or mainstream science or scientific consensus: Public's (including regulators') understanding of science rather than the actual findings of the scientific community



Robert Kehoe Argued that lead didn’t lead to negative health outcomes; his view was predominant

Lead:
The Science

In 1965 Clair Patterson argued that lead was toxic for humans, and his position gained mainstream acceptance in the 1980s after studies by the EPA and the Agency for Toxic Substances and Disease Registry showed the harmfulness of lead

Lead: The Clean Air Act of 1970

Despite lacking a dispositive answer to the scientific question about the dangers of lead to humans, the EPA began actively regulating lead emissions in the 1970s

The US required all new cars made after 1975 to have a catalytic converter installed, and the EU did not require them until 1992

The US began eliminating lead gasoline in 1975 and banned it entirely in 1996, and the EU banned it in 2000

Lead: The Clean Air Act of 1970 “a precautionary statute”

Ethyl Corp. v. EPA (1976)

“The statutes…demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable.”

Natural Resources Defense Council, Inc v. EPA (1978):

The Court determined that the EPA could not consider the cost impacts of its regulation; as a precautionary measure the EPA must regulate based on possible risks to our health

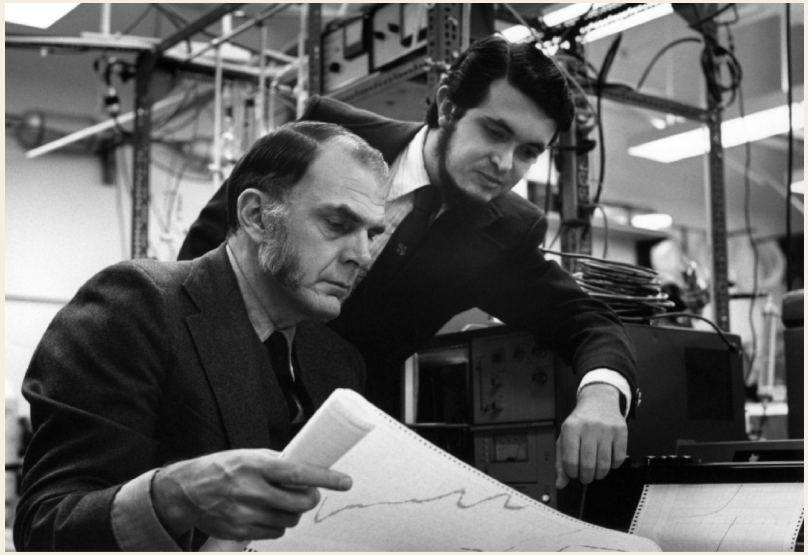
Lead: The European Union

In 1972 the European Commission undertook a study of lead and health; they found that lead was not an immediate danger to public health

EU legislation made catalytic converters mandatory on all new cars in 1993 vs. 1975 in the US

The EU banned the sale of leaded gas in 2000, vs. the US, which banned it in 1996

CFCs: The Science



CFCs are compounds found in aerosol cans, refrigerators, and HVAC equipment

In 1974 Frank Rowland and Mario Molina proposed a hypothesis that CFCs were depleting the ozone layer, but the scientific community had reservations about this theory

In 1985 Joseph Farman and a team of British scientists produced the 1985 Farman study, which identified a hole in the ozone layer but could not find a definitive causal link

The head of the EPA called it a “scare story.”

CFCs: Reagan’s “insurance policy”

In 1978 EPA banned the use of CFCs in aerosol sprays, and in 1985 the EPA banned its use in refrigerators and air conditioners

Based on the Rowland-Molina hypothesis, governments met in 1987 to negotiate the Montreal Protocol, where 51 nations gathered and ratified an agreement to eliminate the use of CFCs

Reagan was pushing to sign and ratify the agreement and he called it an “insurance policy"

The US pushed for rapid reductions and was among the first nations to ratify the treaty in 1988; at the same time the EU fought the US during negotiations and didn't phase out CFCs till 2000

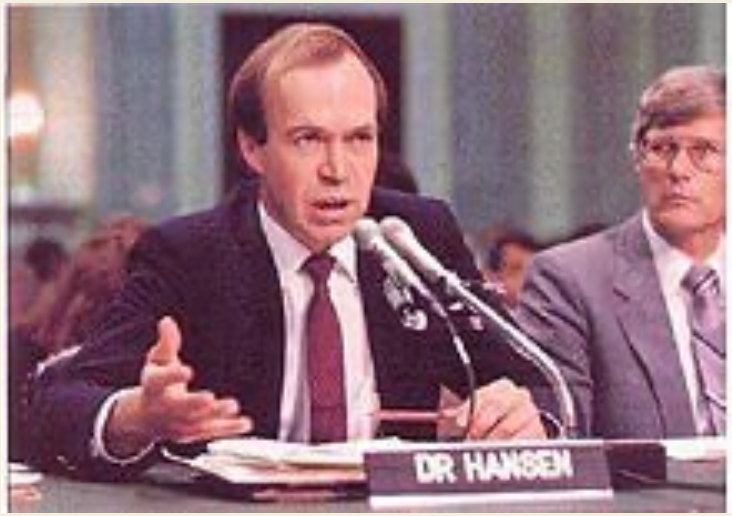
CFCs: The Clean Air Act: “a precautionary statute”

Natural Resources v. Administrator, US EPA (1990):

In this decision, the court explicitly called the Clean Air Act "precautionary" and stated that the EPA could act when an air pollutant "may reasonably be expected to endanger health," even if the risk from exposure were "uncertain or conflicting."

Found that health threats of the pollutants were “uncertain or conflicting” but that the EPA could regulate based on “ suspected but not completely substantiated relationship[s] between facts[...and] imperfect data[...].”

CO2: The Science



Scientists still debate today on the timeline of global warming and what actions are appropriate to mitigate it

In 1988 Dr. James Hansen's article in *Science* magazine highlighted global warming; Hansen stated that he was 99% certain that the earth was warmer than it had been in the previous 130 years, resulting from carbon dioxide in our atmosphere

The scientific consensus grew through the 1990s

Lobbyist, interested firms, and media outlets brought to the forefront dissenting opinions contesting Hansen's view

A 1997 poll found that merely 28% of people believed there was a scientific consensus about global warming, and most (58%) believed there was a division among scientists on the subject

The Inversion

Before 1990 the US led in fighting emissions using a precautionary method focused on lead and CFCs

In 1993 Bill Clinton signed an Executive Order restricting regulations based on a cost-benefit analysis, and moved away from the precautionary method

As a result, there was an inversion between the US and the EU concerning fighting climate change

During the early 1990s, the EU started adopting greenhouse gas reduction regulations

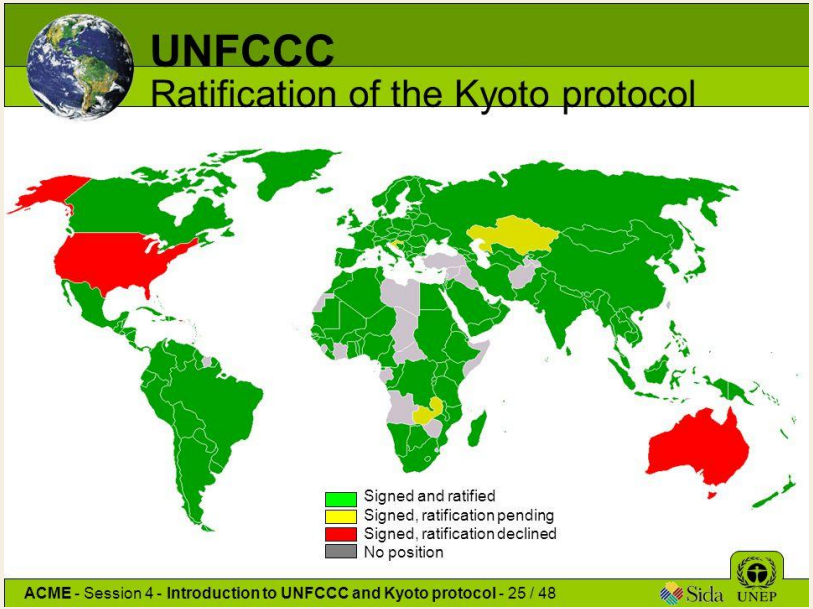
United Nations Framework Convention on Climate Change (UNFCCC)

CO2: The Kyoto Protocol

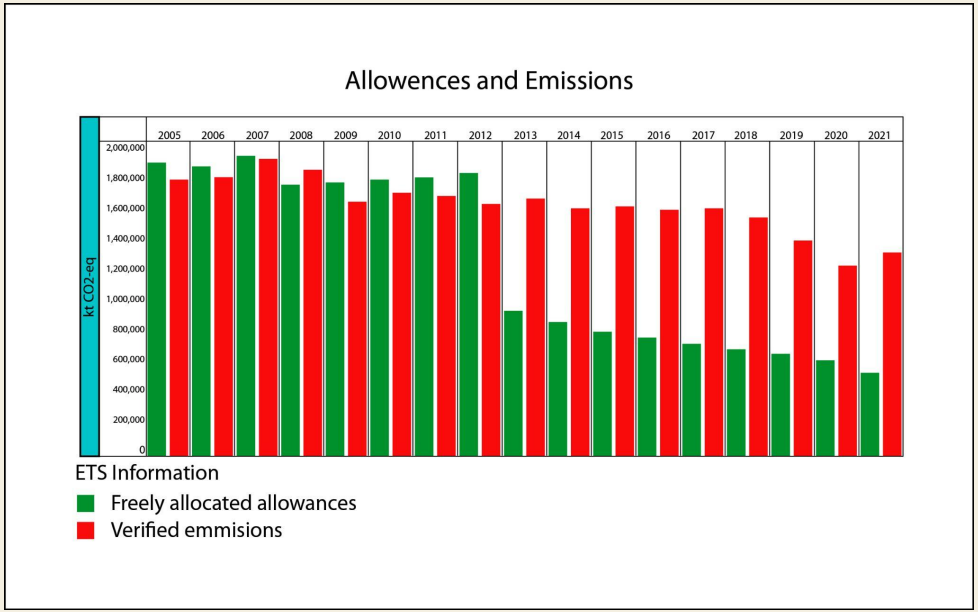
In 1997, 160 Nations came together and negotiated the Kyoto Protocol, a multilateral agreement regulating greenhouse gasses back to 1990 levels

The EU pushed for stringent standards in the Kyoto Protocol negotiations and ratified it in 2002

190 Countries ratified the agreement, and the US has yet to ratify the agreement



CO2: The EU's Cap and Trade



In 2005 the EU passed a cap and trade on carbon regulation and now distributes and sells CO2 allowances

US attempts to pass cap and trade legislation have failed, and the EPA has been hesitant about the regulation of CO2

Data From: European Environment Agency

CO2: 2014 European Union GHG Goals

In October 2014, the European Council created a framework for climate and energy

They set domestic goals to reduce greenhouse gas emissions to 40% below the emissions we had in 1990

The Council also established a goal to have at least 27% renewable energy efficiency by 2030

CO2: The Paris Climate Agreement

2015 Paris Agreement (required due to lack of traction by the Kyoto Agreement)

200 Nations again negotiated a multilateral agreement to regulate greenhouse gasses

As of 2017 only two sovereign nations had not signed the agreement Nicaragua and Syria

Barack Obama signed the agreement in 2016
Donald Trump removed the US in 2017
Joe Biden reengaged the US in 2021

CO2: 2020 European Union Green Deal

The Green Deal is an action plan with a set of policy initiatives for European Union member states

It was developed in 2019 by the European Commision to meet goals set by the 2015 Paris Agreement

February 2023 the European Union committed $270 billion towards achieving the goals set in the Green Deal

Its goal is eliminate carbon emissions and make Europe the first carbon neutral continent by 2050

A New Regulatory Era in the US: Economic Cost-Benefit Analysis

Clinton’s Executive Order in 1993 required all regulatory agencies to submit detailed information on costs and benefits for the Office of Management and Budget (OMB) to review

Michigan v. EPA (2015)
Held that EPA must consider costs of regulation before implementing a new regulation
It is inappropriate "to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.”

A New Regulatory Era in the US: Scientific Risk Assessments

Information Quality Act of 2000, Unfunded Mandates Reform Act of 1995, and Small Business Regulatory Fairness Enforcement Act of 1996

Mandated agencies conduct extensive scientific, statistical, and quantitative risk analysis research before regulating

Courts conduct review on new regulation for compliance, placing the burden on agencies to meet these standards

A New Regulatory Era in the US: The OMB

These enactments empowered the OMB to issue guidelines providing agencies with standards of scientific and statistical information released by agencies

They also gave the OMB veto power over federal regulations if they fail to meet their standards of scientific or cost-benefit analysis

A New Regulatory Era in the EU: 1992 Maastricht Treaty

As the US moved away from precautionary legislation, the EU embraced this style of regulation in the 1990s

1992 Maastricht Treaty formally introduced precautionary principle to the EU. Article 130r(2) states: “[EU] policy on the environment . . . should be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should, as a priority be rectified.”

A New Regulatory Era in the EU: EU Policy Guidelines of 2000

Gives guidance on the application of the Precautionary Principle

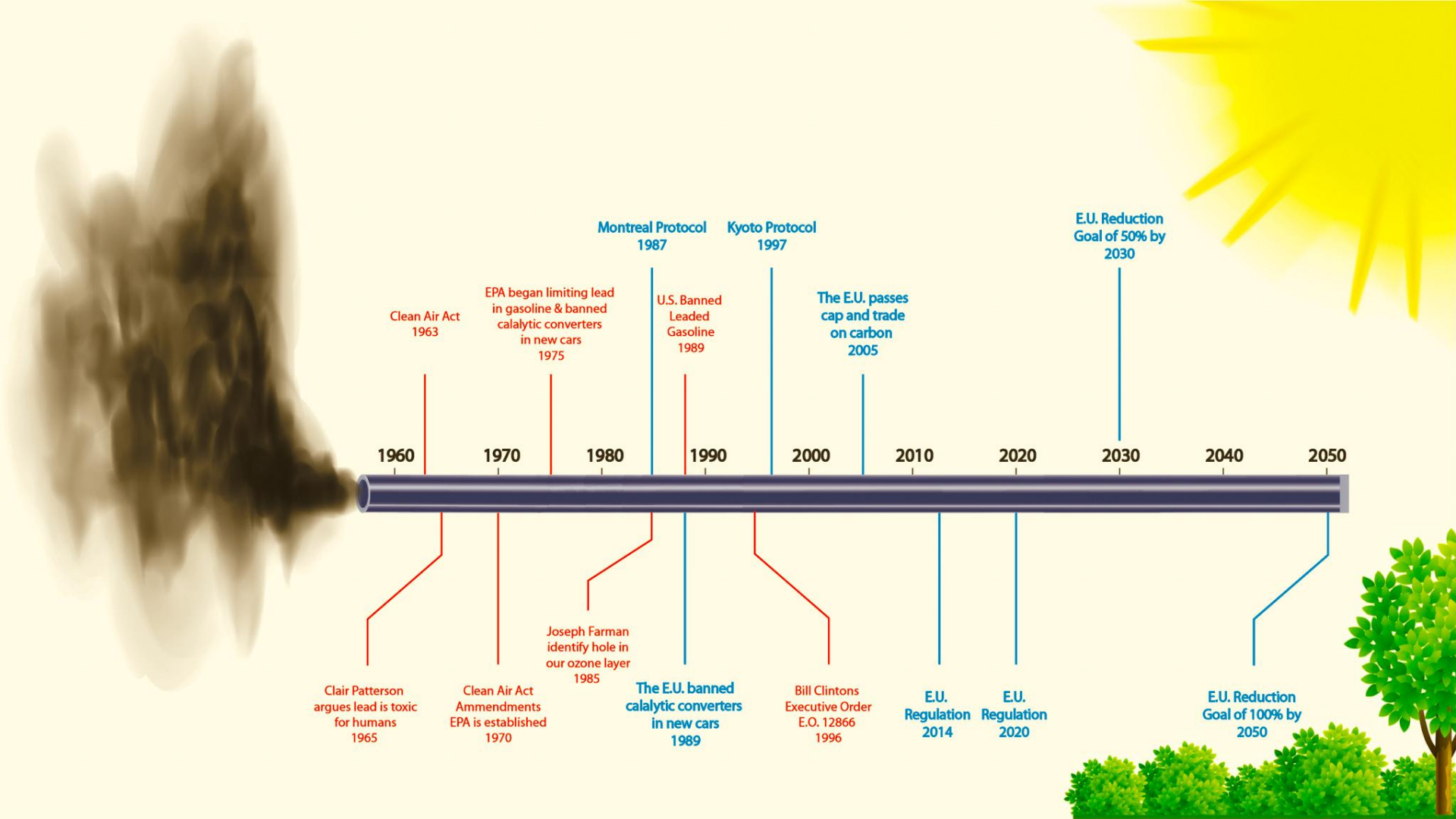
“the absence of scientific proof of the existence of a cause-effect relationship [. . .] should not be used to justify inaction.”

The principle should be invoked when “*potentially* dangerous effects deriving from a phenomenon, product, or process” have been identified

A New Regulatory Era in the EU: The Burden of Proof

Pfizer v. Council of the European Union (2002)

Ruled that regulators in the EU under the precautionary principle are not required to make “a completed substance-based risk assessment, and does not depend on agreement by designated scientific expert committees before precautionary intervention can be undertaken.”


Montreal Protocol
1987
Kyoto Protocol
1997
E.U. Reduction
Goal of 50% by
2030
Clean Air Act
1963
EPA began limiting lead
in gasoline & banned
calalytic converters
in new cars
1975
U.S. Banned
Leaded
Gasoline
1989
The E.U. passes
cap and trade
on carbon
2005
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050
Clair Patterson
argues lead is toxic
for humans
1965
Clean Air Act
Ammendments
EPA is established
1970
Joseph Farman
identify hole in
our ozone layer
1985
The E.U. banned
calalytic converters
in new cars
1989
Bill Clintons
Executive Order
E.O. 12866
1996
E.U.
Regulation
2014
E.U.
Regulation
2020
E.U. Reduction
Goal of 100% by
2050