

US EPA ARCHIVE DOCUMENT



# *Including Environmental Justice in Economic Analyses at the EPA*

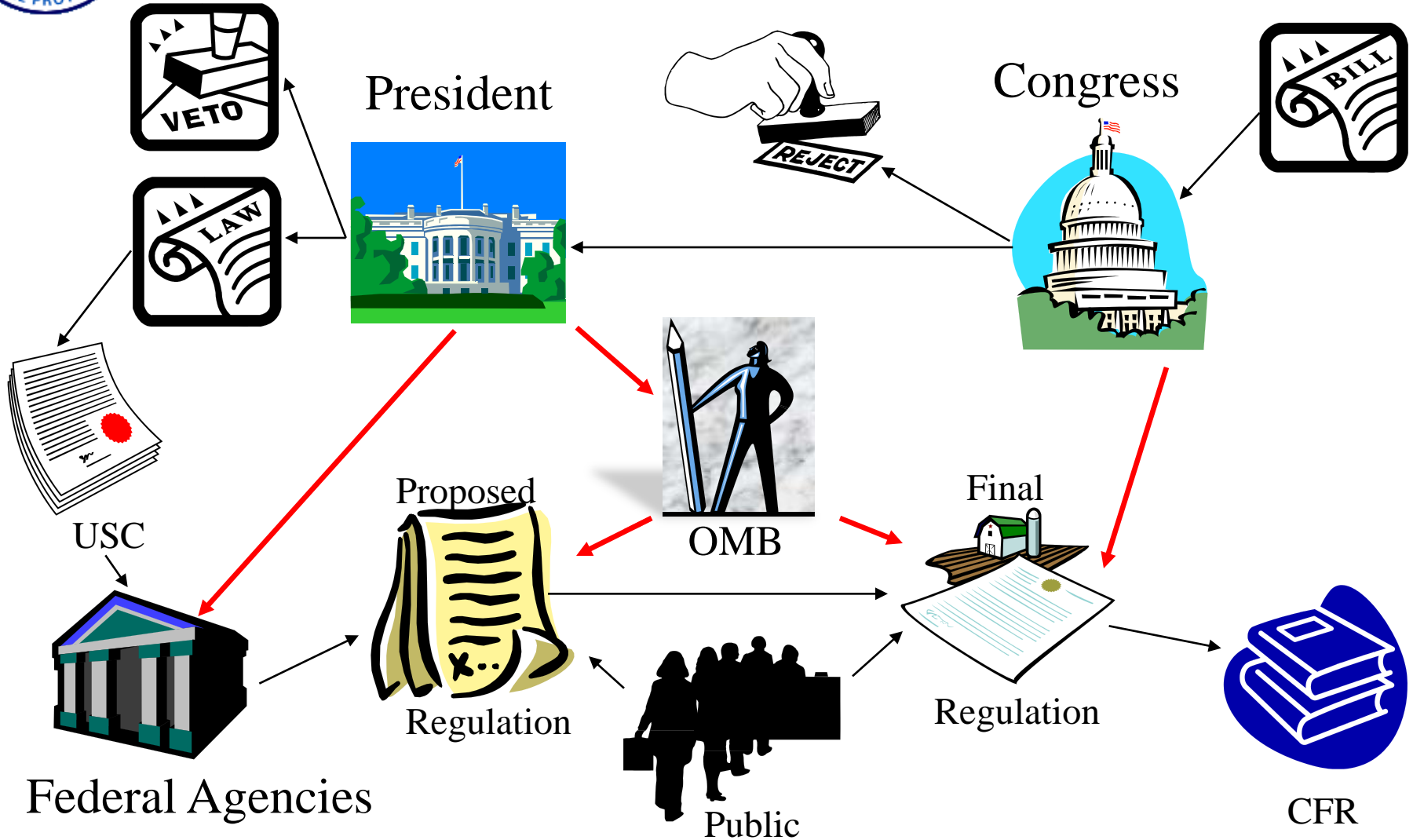
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The views expressed here are those of the author and do not represent official U.S. Environmental Protection Agency views or policy.



# From Law to Regulation





# Executive Order 12866

- In Deciding Whether and How to Regulate
  - Assess all costs and benefits of all alternatives
  - Include option of not regulating
  - Both quantifiable and non-quantifiable measures
- Maximize Net Benefits Including
  - Economic
  - Environmental
  - Public health and safety
  - Distributive impacts
  - Equity
- Propose Regulation
  - “Upon a reasoned determination that the benefits of the intended regulation justify its costs”

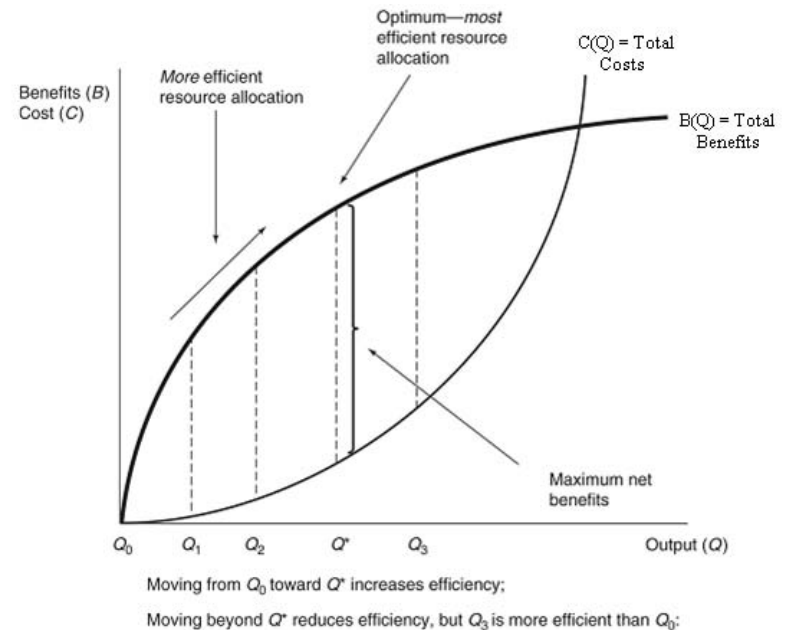


# Economic Efficiency

- The efficient solution is the one that maximizes the net benefits

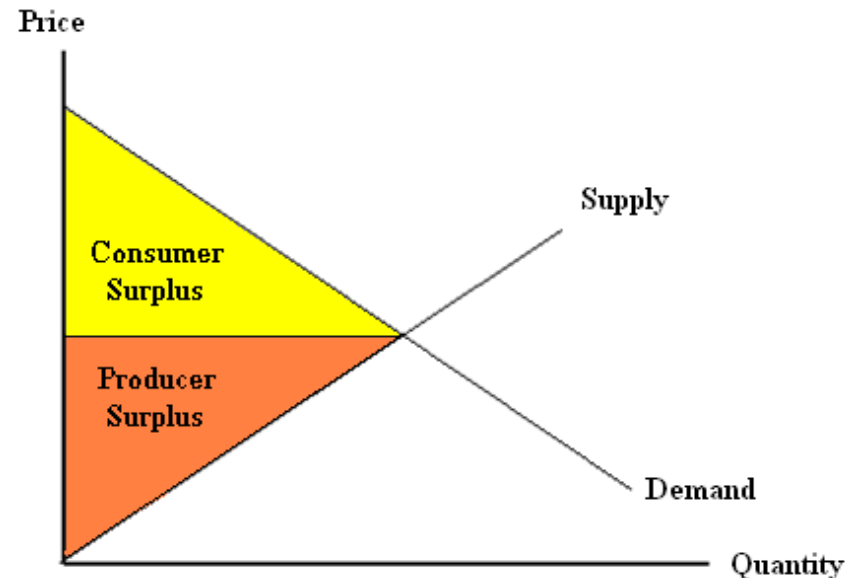
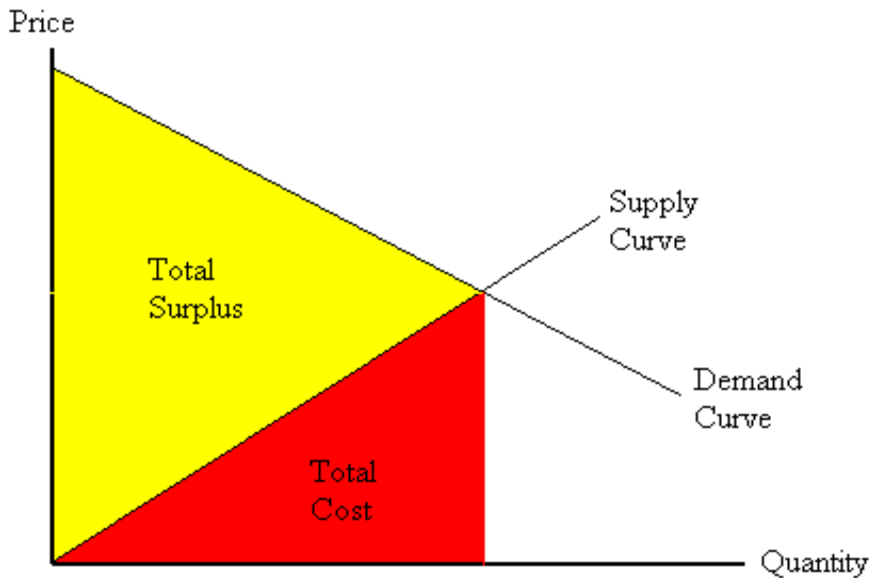
$$\text{Net Benefits} = \text{Benefits} - \text{Costs}$$

- The efficient solution is not
  - where total benefits equal total costs
  - where the benefit/cost ratio is maximized
  - where benefits are maximized
  - where costs are minimized
- A problem may have several options where benefits exceed costs.





# At the societal level, consumer and producer surplus are treated symmetrically





# Efficiency of the private market

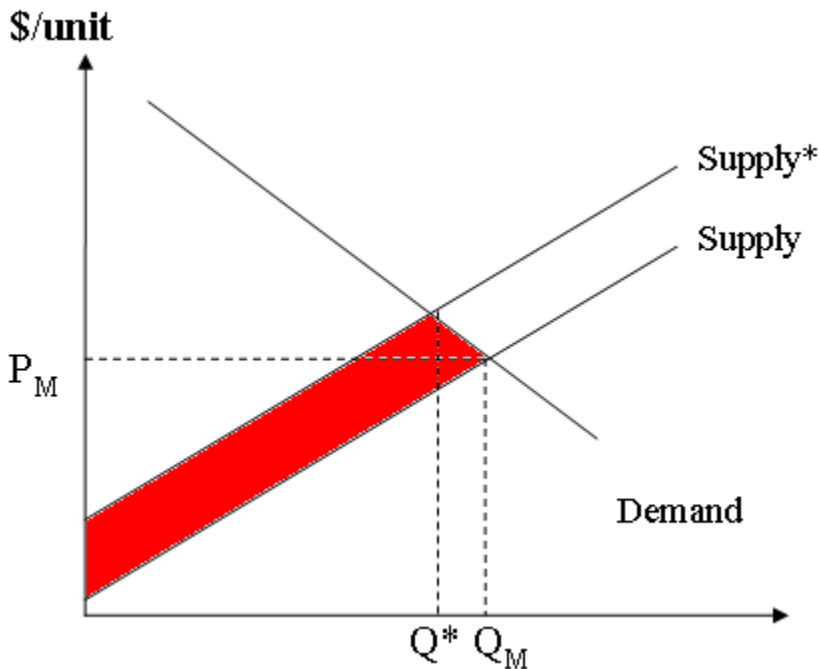
- Adam Smith showed that the private market can allocate and distribute resources efficiently. Inefficient users of resources go out of business.
- Economics identifies several market failures that justify government intervention:
  - Externalities
  - Common property
  - Imperfect information
  - “Other Social Purposes” - Income Redistribution, paternalism
- BCA simulates the private market test for public goods: Is society as a whole, better off with the regulatory action?
  - BCA quantifies the benefits and costs of producing environmental protection.
  - Consistent with private markets, the efficient outcome is the option that maximizes net benefits.
  - There are strong equity assumptions associated with this.



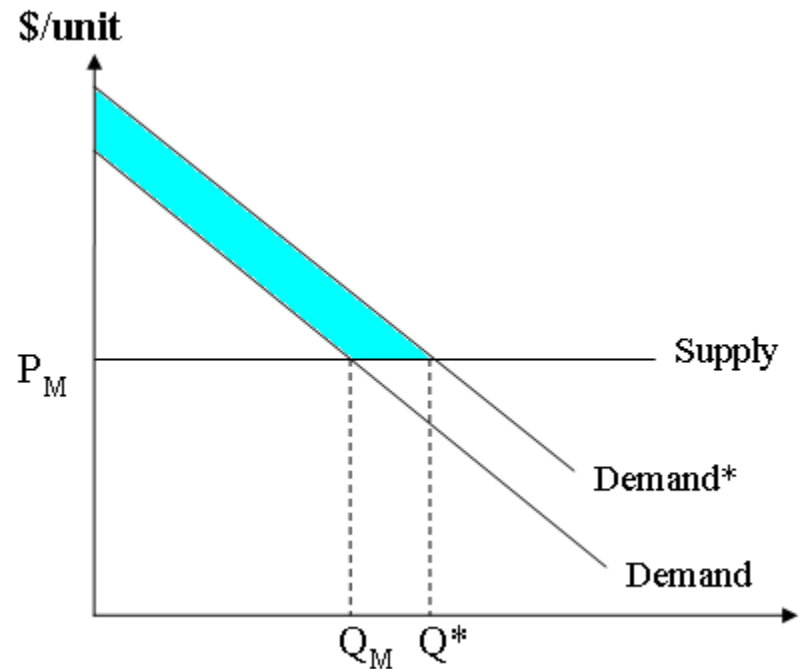
Adam Smith  
(1723-1790)



# In a benefit-cost analysis, costs and benefits are treated symmetrically



Polluting Industry



Market affected by  
Environmental Quality





# Executive Order 12898

- To the greatest extent practicable and permitted by law ... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions.
- To the extent permitted by existing law ...
  - (a) (E)ach Federal agency, ... shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;
  - (b) ... (E)ach Federal agency ... shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on the surrounding populations
- Federal agencies ... shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence.



# Statutes and Policies that Directly Address Distributional Issues

- EO 12898 – Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (1994)
- EO 12866- Regulatory and Planning Review (1993)
- EO 13045 – Protection of Children from Environmental Health Risks and Safety Risks (1997)
- E.O. 13132 – Federalism (1999)
- E.O. 13175 – Consultation and Coordination with Indian Tribal Governments (2000)
- E.O. 13211 – Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use (2001)
- The Regulatory Flexibility Act of 1980; as amended by the Small Business Regulatory Enforcement Fairness Act of 1996
- The Unfunded Mandates Reform Act of 1995



# Guidance on Environmental Justice

- Council on Environmental Quality - Environmental Justice Guidance Under the National Environmental Policy Act (1997)
- EPA - Final Guidance For Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses (1998)
- OMB – Circular A-4: Regulatory Analysis (2003)
  - OMB - Economic Analysis of Federal Regulations Under Executive Order 12866 (1996)
- EPA – Guidelines for Preparing Economic Analyses (Draft 2008)
  - EPA – Guidelines for Preparing Economic Analyses (2000)



# EPA's Office of Environmental Justice

- Environmental Justice is the **fair treatment** and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
- Fair treatment means that no group of people should bear a disproportionate share of the *negative* environmental consequences *resulting from* industrial, governmental and commercial operations or policies.



# Common Boilerplate

“... this ... rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.”



# Thoughts for Moving Forward

- Is an Environmental Justice analysis the same as a distributional analysis?
- Is an Environmental Justice analysis necessary and appropriate when all parties experience environmental improvements?
- Are we concerned with the distribution of both *benefits* and *costs*?
- Are there *ex ante* Environmental Justice concerns or only *ex post*?
- How can we quantitatively measure the degree of environmental justice concern (e.g., disproportionately high and adverse impacts) in a given situation.
- What metrics should we use to gauge improvements?