
WELCOME!
ECON 342
ENVIRONMENTAL ECONOMICS
FALL 2014

Lecture Agenda

1. Syllabus
   - Class webpage

2. About me

3. Introduction to environmental economics

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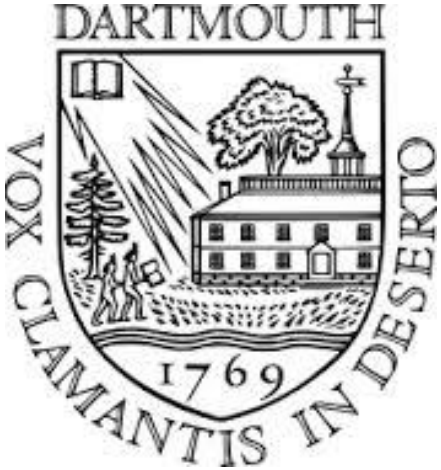
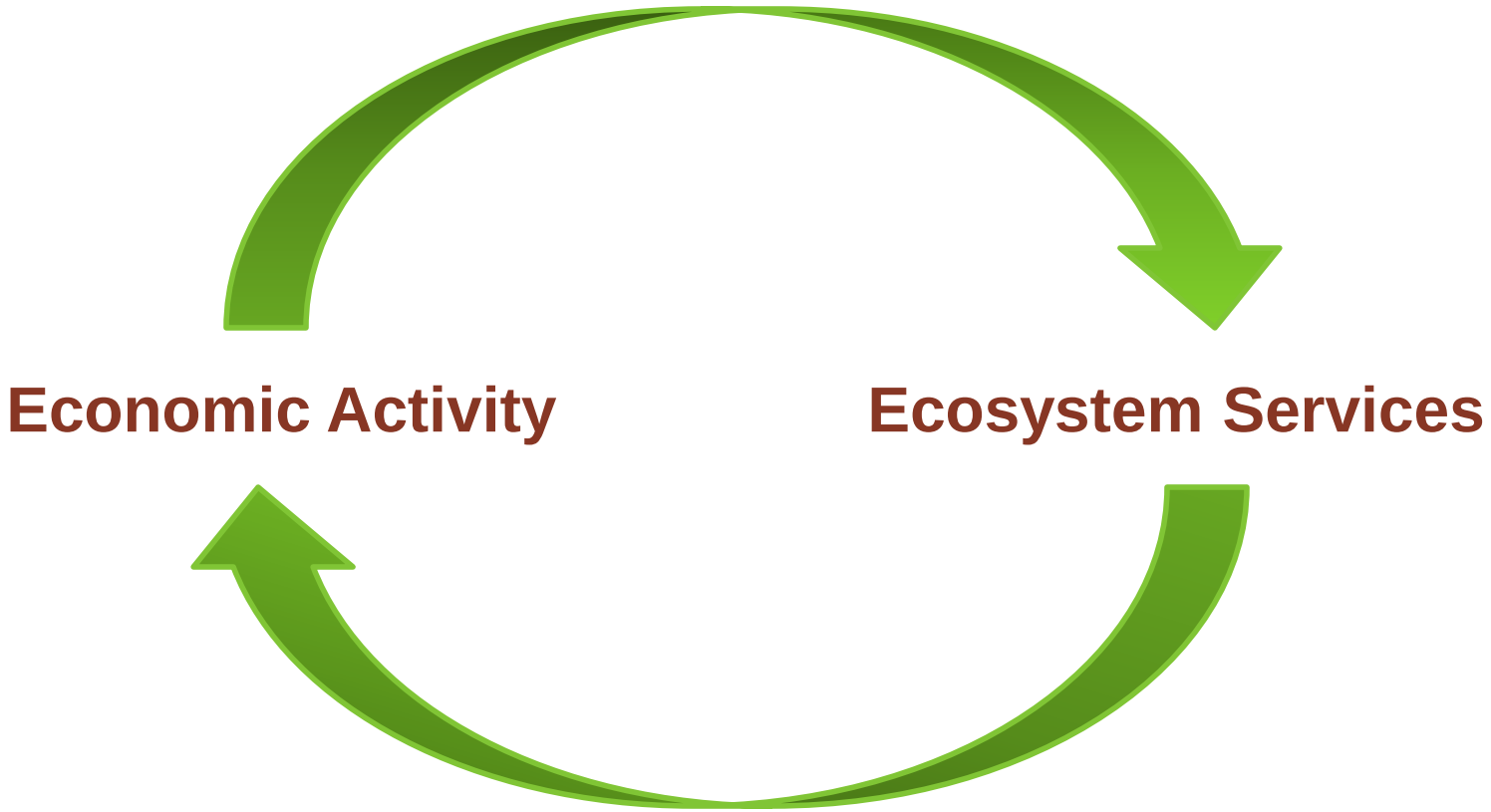
Let me introduce myself…



Research



Invasive Species

- ***Linaria vulgaris***

- **Lionfish**

- **Emerald Ash Borer**

Climate Change

- **Energy production**

- **Carbon permits and albedo effect**

- **Health**

Spatial Management

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Economics *for* the Environment

- Economics can provide important insights into environmental policy
- Environmental consequences from economic activity gaining traction within society

- Structure of the course
  1. Economic insights into environmental policy
  2. Application

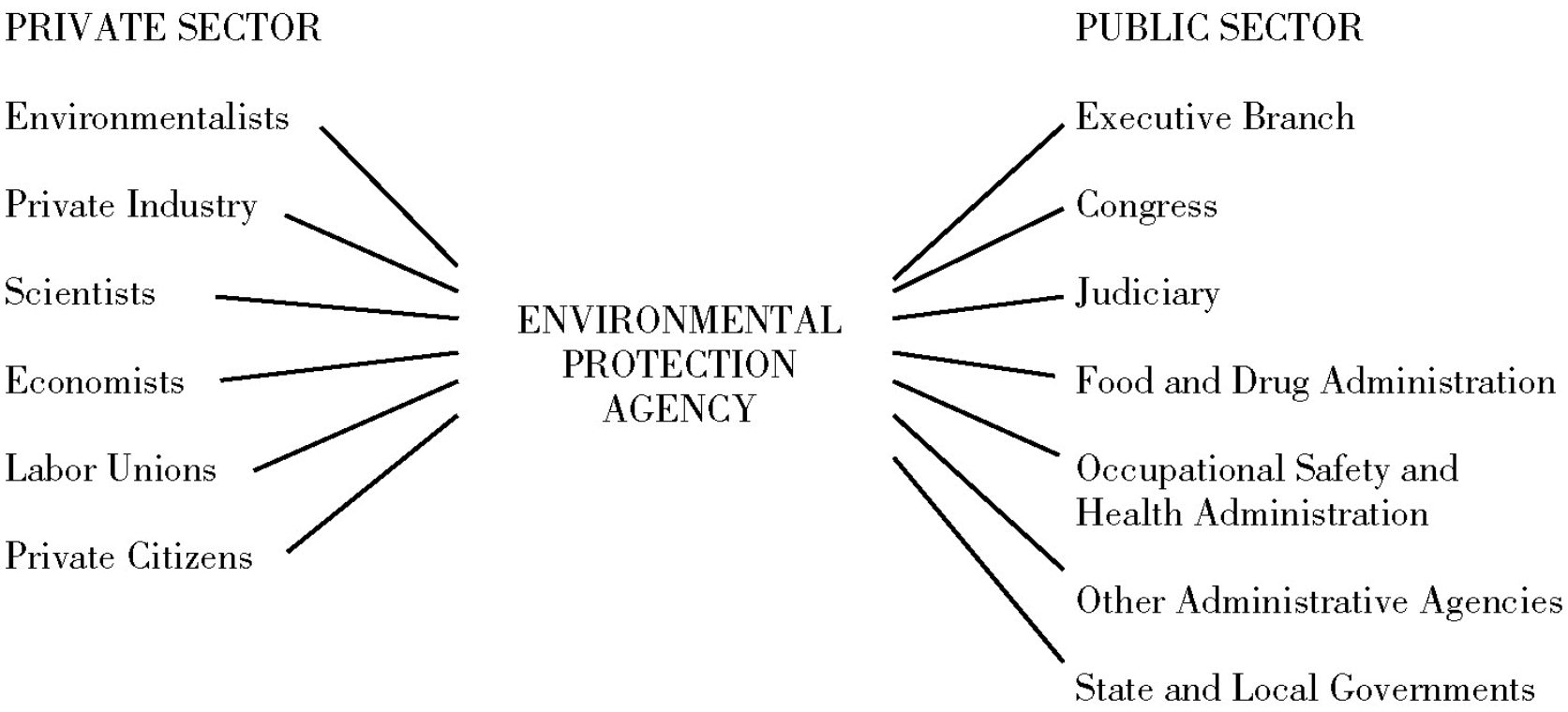
National Environmental Policy Act (NEPA) of 1969

- Directs the integration of effort across agencies, executive departments, and branches of government in the U.S.
- Guides U.S. federal environmental policy
- Requires that environmental impact of public policy proposals be addressed
  - Calls for an Environmental Impact Statement (EIS) on proposals or major federal actions

Environmental Policy Planning

- Environmental planning involves many segments of society
- In the U.S., the Environmental Protection Agency (EPA) acts as liaison to numerous constituents within each sector

Environmental Policy Planning



***Source**: Based on Vaupel (1978), Figure 5-3, p. 75.*

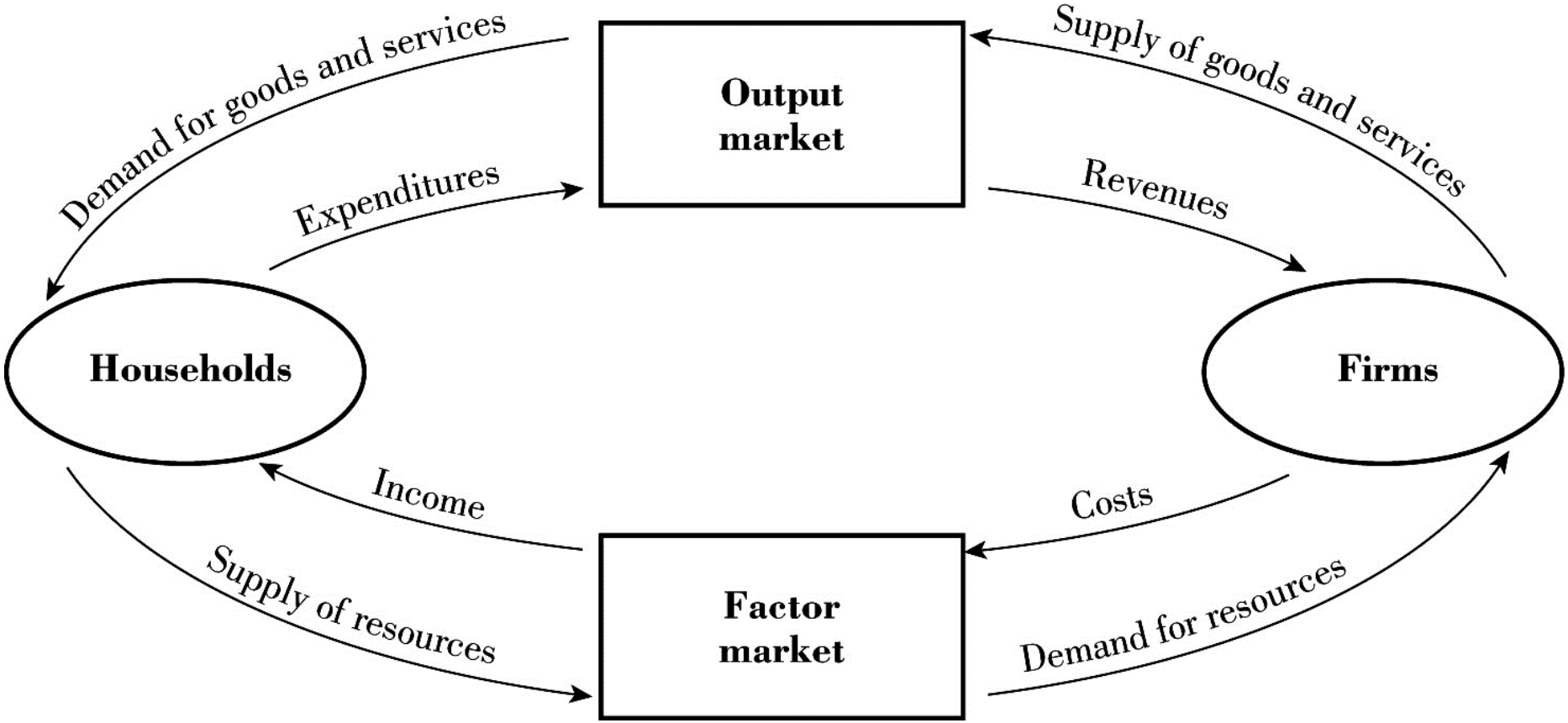
Economics and the Environment

- Economic theory explains what we observe in reality, including environmental problems
- Recognize the link between economic activity and the environment using models

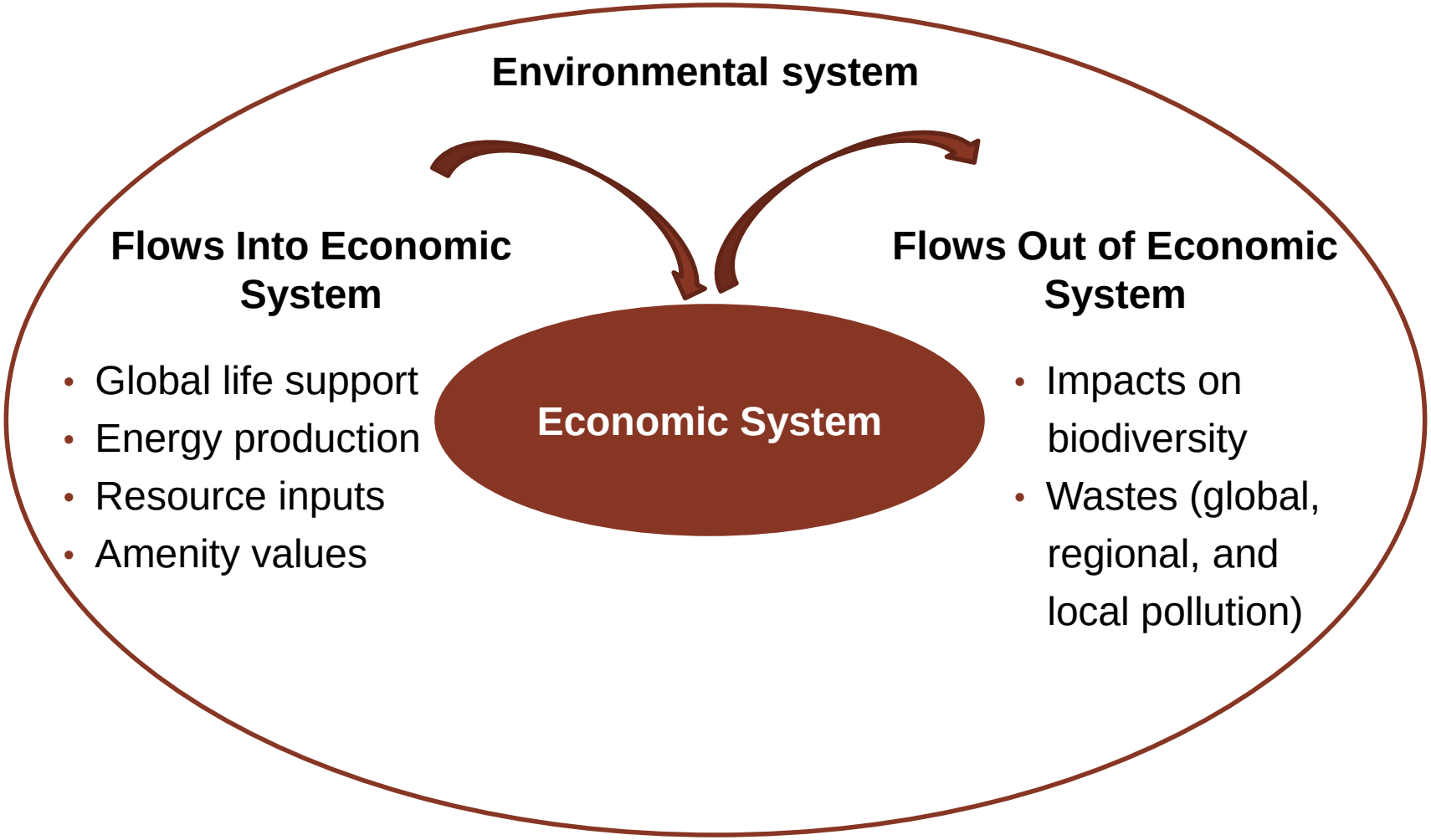
Economic System: Circular Flow Model

- Shows the real and monetary flows of economic activity through the output and factor markets (see next slide)
  - Forms the basis for modeling the relationship between economic activity and the environment
  - But does not explicitly show the linkage between economic activity and the environment

Economic System



Economy-environment interactions



Economy-environment interactions

- Additional economic **demands on** the environment can impact the service **flows from** the environment.
  - Examples
    - Waste sink versus life supporting functions (climate regulation)
    - Resource inputs versus amenity values

- Exogenous versus endogenous impacts

Class objectives

- 1. Create a better understanding of the feedback loops between economic and environmental systems.
- 2. Behavioral underpinnings matter for economic policy.
  - Environmental resources are scare and using them results in an opportunity cost.
- 3. Free market system can result in ‘wrong’ level of environmental quality.
  - Market failures
  - Government interactions
  - However, markets can be a solution.
- 4. Economic growth gives rise to a series of environmental consequences that have to be dealt with.