

Microeconomics, Consumer Behavior & Public Policy

Lecture #5

MPPA Linkage Program

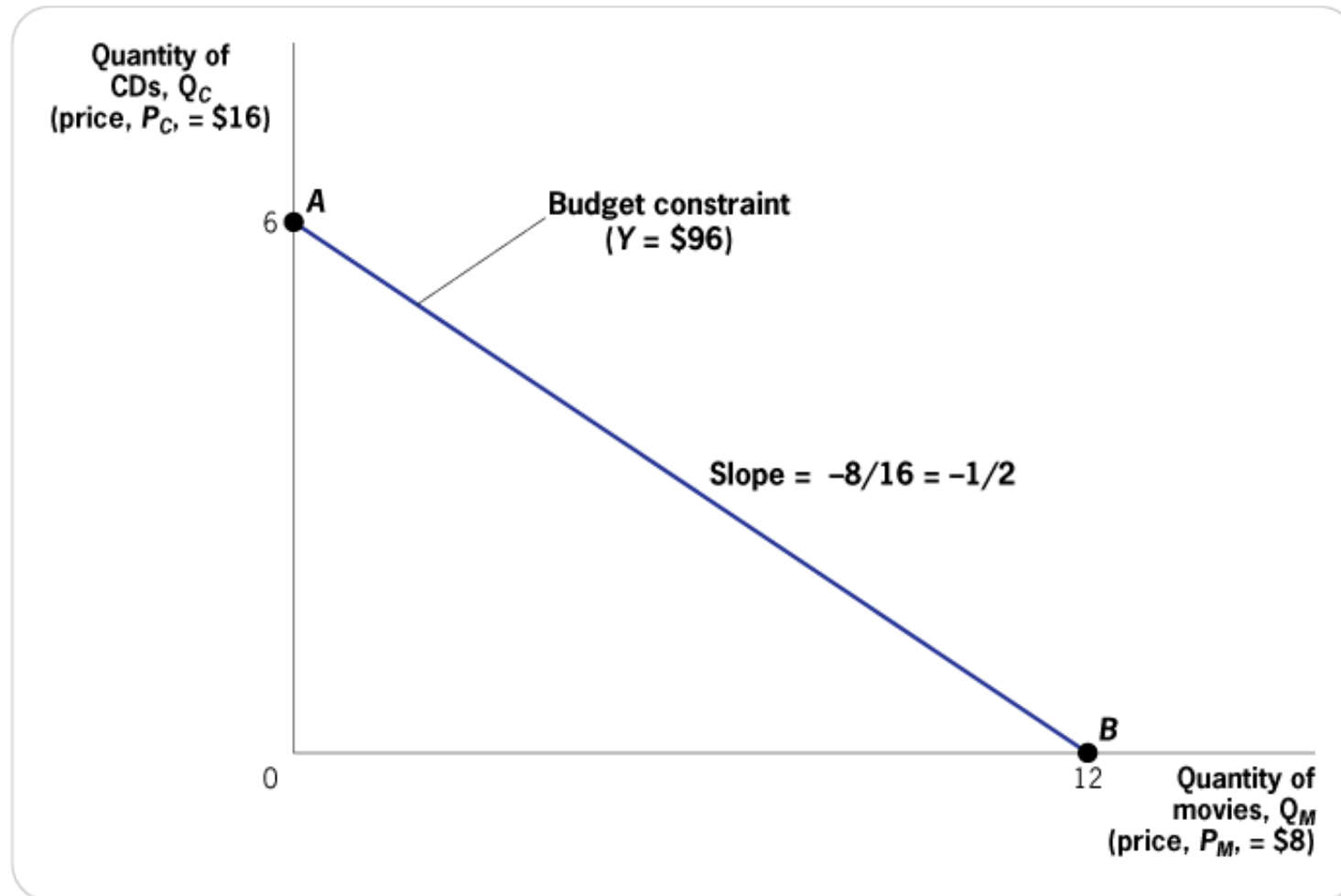
Topics

1. Welfare economics: how understanding consumer behavior is important for making public policy.
2. Budget constraint and indifference curves.
3. Pure exchange economy: the Pareto efficiency.
4. The role of government: public policy.

Welfare Policy and Microeconomic Tools

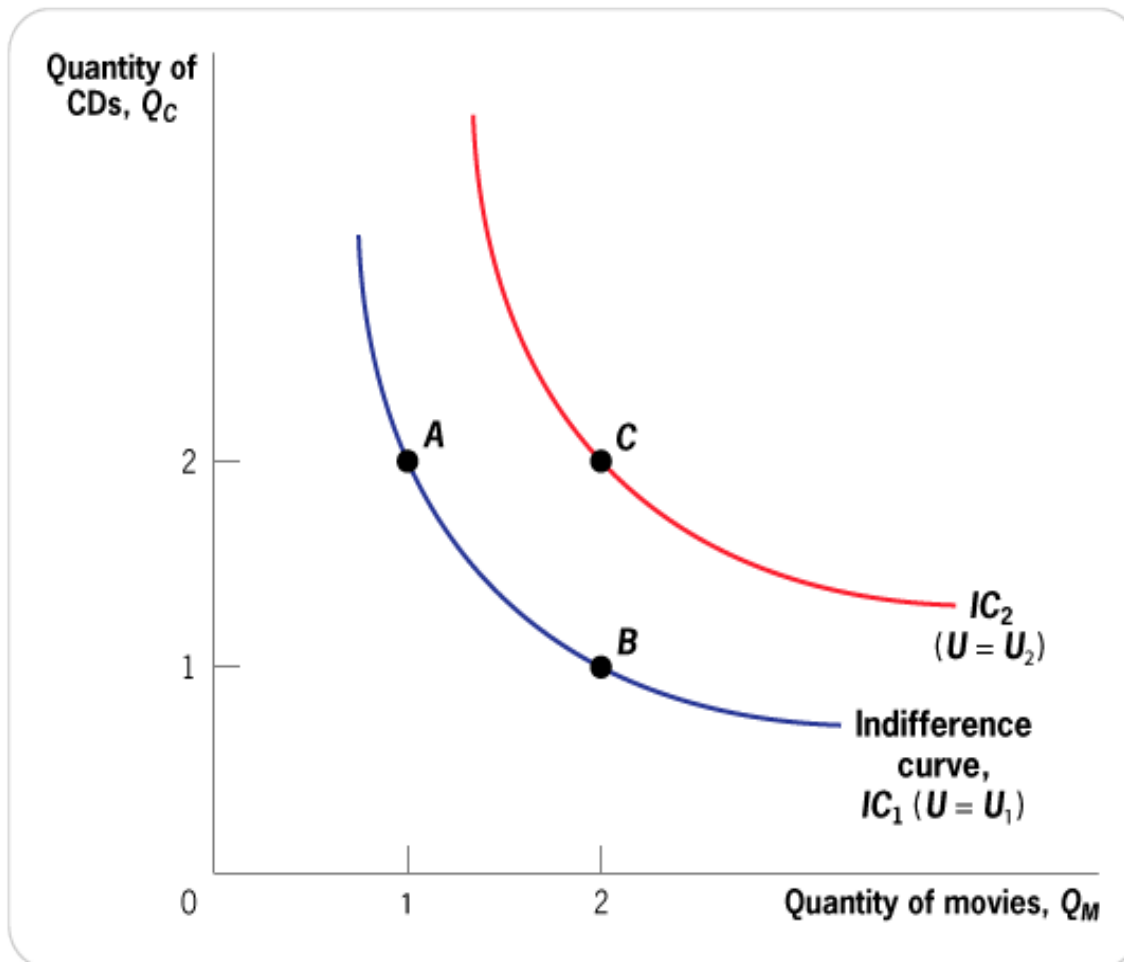
- ***Welfare economics*** is concerned with the social desirability of alternative economic states.
 - Distinguishes cases when private markets work well from cases where government intervention may be warranted.
- Relies heavily on basic microeconomic tools, particularly consumer behaviors, indifference curves, Pareto efficiency, market failures, etc.

All consumers have budget constraints



Budget Constraint • With an income, Y , of $\$96$, a price of $\$16$ per CD, and a price of $\$8$ per movie, Andrea can trade off 1 CD for 2 movies, up to a total of either 6 CDs or 12 movies. The slope of the budget constraint is therefore $-1/2$, indicating the ratio of movie-to-CD prices.

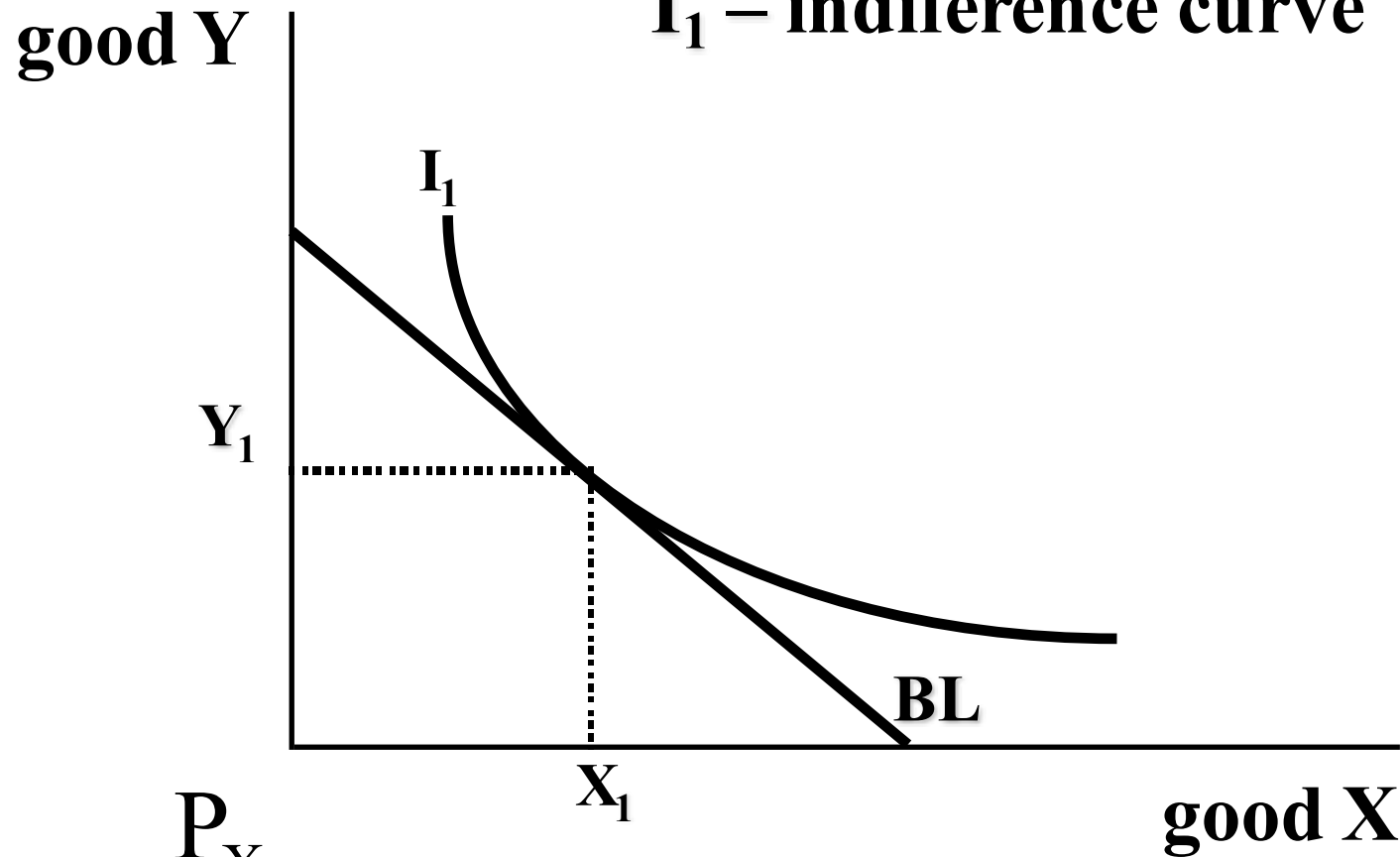
Indifference Curves



Indifference Curves for Bundles of CDs and Movies • Andrea is indifferent between consuming 2 CDs and 1 movie (point A) or 1 CD and 2 movies (point B), but she prefers 2 CDs and 2 movies (point C) to both. Utility is the same along a given indifference curve; indifference curves farther from the origin represent higher utility levels.

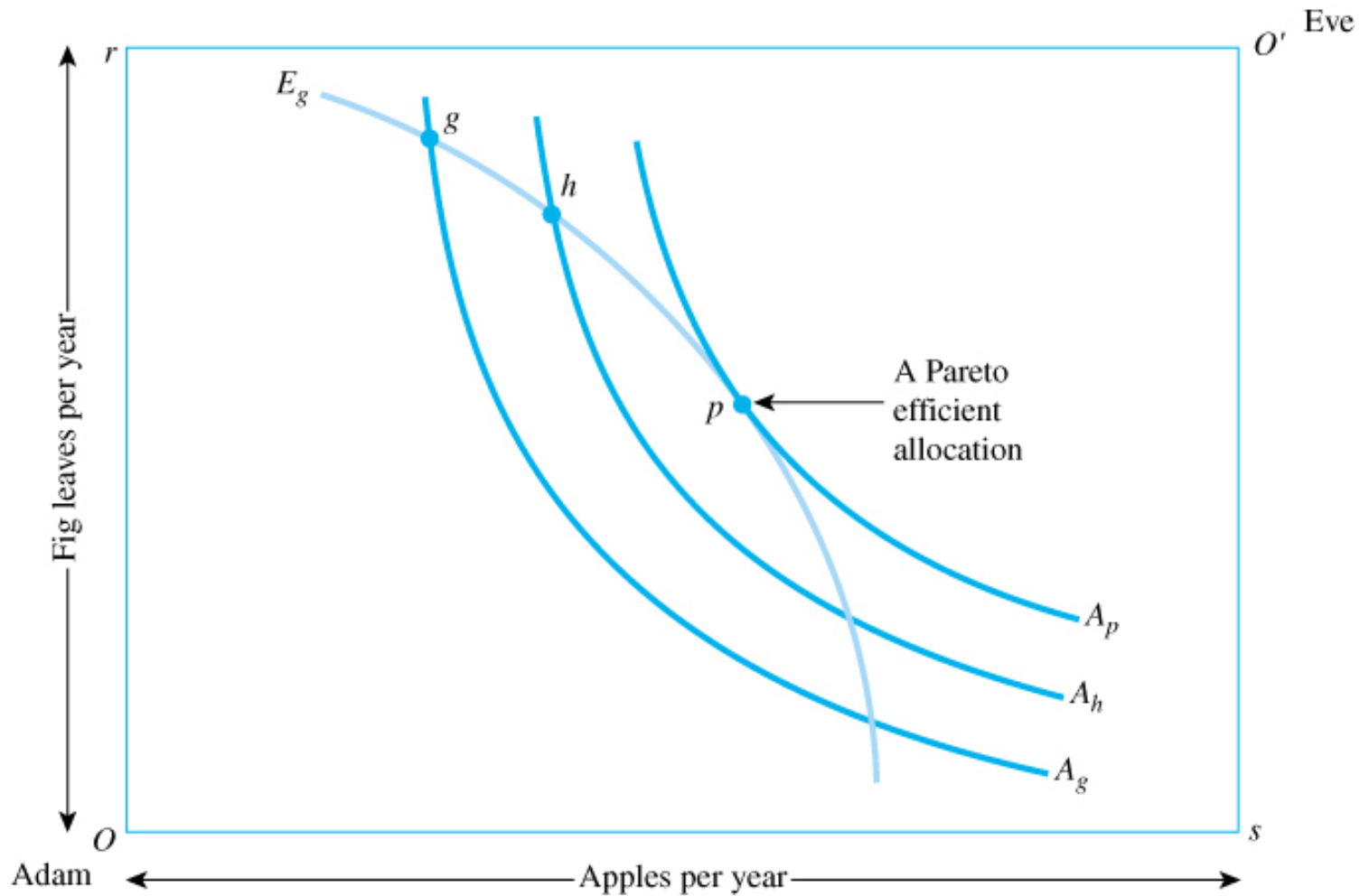
BL - Budget Line

I₁ - indifference curve



$$MRS_{X,Y} = \frac{P_X}{P_Y}$$

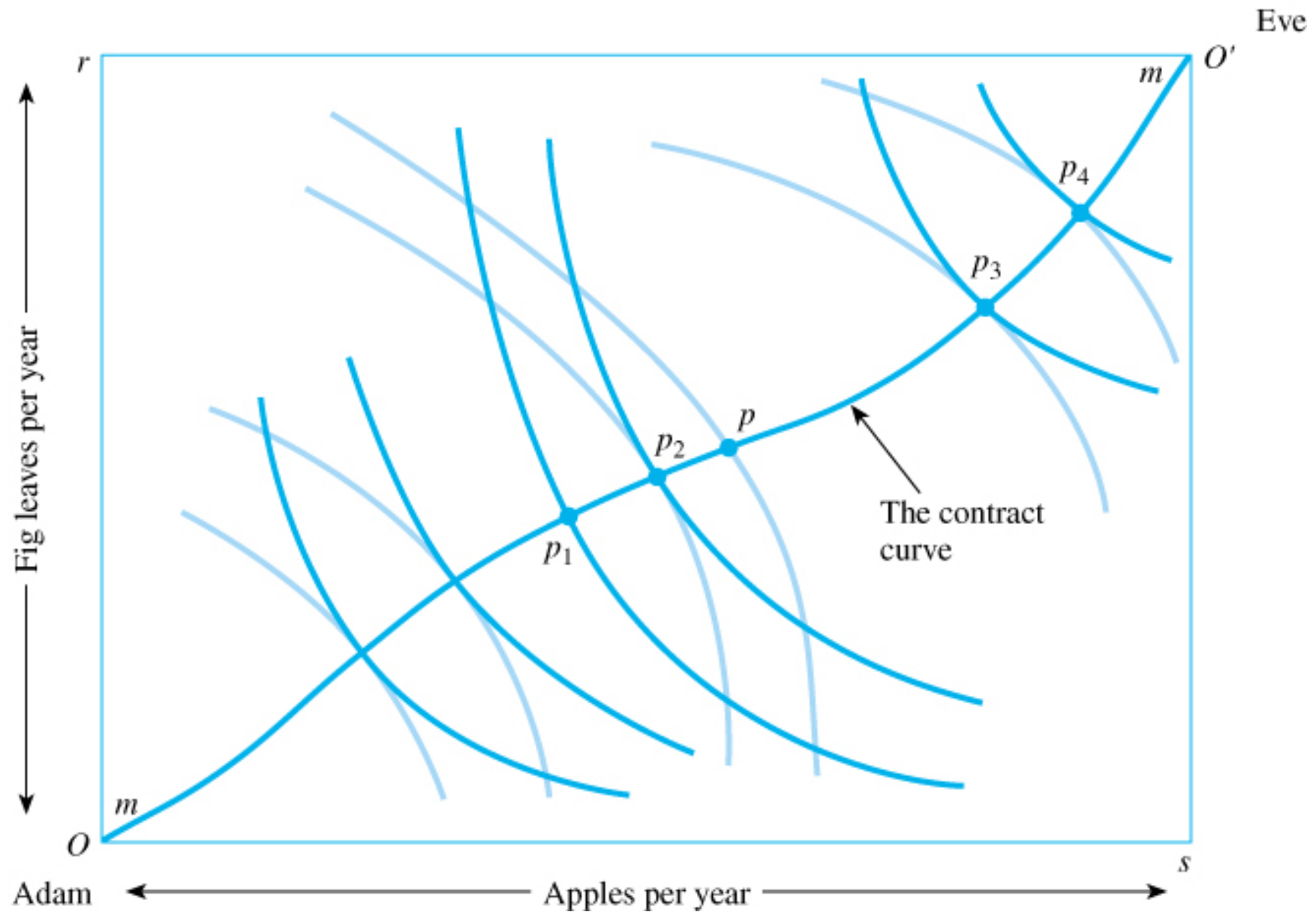
Indifference Curves of Two Consumers



Pure Exchange Economy

- We can now pose the following question: Is it possible to reallocate apples and figs between Adam and Eve to make Adam better off, while Eve is made no worse off?
- An allocation is ***Pareto efficient*** if the only way to make one person better off is to make another person worse off.
 - Often used as the standard for evaluating desirability of an allocation of resources.
 - Pareto inefficient allocations are wasteful.
- A ***Pareto improvement*** is a reallocation of resources that makes one person better off without making anyone else worse off.

The Edgeworth Box



First Fundamental Theorem of Welfare Economics

- Assume that
 - All producers and consumers act as perfect competitors (e.g., no market power)
 - A market exists for each and every commodity
- Under these assumptions, the ***first fundamental theorem of welfare economics*** states that a Pareto efficient allocation will emerge.
- Implication: Competitive economy automatically allocates resources efficiently, without central planning.
- Conclusion: Free enterprise systems are amazingly productive.

Second Fundamental Theorem

- Society can attain *any* Pareto-efficient allocation of resources by making a suitable assignment of initial endowments and then allowing free trade.
- No adjustments to prices.
- Issues of efficiency and distributional fairness can be separated.

Best market structure → Perfect competition

- (1) Many, many consumers and firms
- (2) Homogenous product
- (3) Perfect information for buyers and sellers
- (4) Free entry and exit in Long-run.

Issues of Public Policy: Market Failures

1. Externalities
2. Public goods
3. Property rights and economy of scales
4. Asymmetric information.

Externalities

There are several potential reasons that markets fail in allocation ...

Externalities

- Consumption by individual or production by firm that affects utility function or production function of at least one other individual or firm:
 - Can be **positive** (utility increasing) or **negative** (cost increasing)
- **Examples:** *Positive* - education, urban renewal, public health, R&D, etc; *Negative* - air pollution, noise pollution, etc.

Public Goods

Non-exclusive (Public) goods

- A good for which, once someone buys, if everyone is able to enjoy the full amount of the services provided by the good
- **Examples:** national defense, highways, parks, pools, golf clubs, etc.
- **Problem:** If you can consume a good whether you pay for it or not, you have no incentive to contribute to production (the **free-rider problem**) which results in under-production
- **Solution:** Government provides more efficient level of production which is financed through collection of taxes.

Property Rights & Economy of Scales

1. Property Rights and Enforceable Contracts

- **Problem:** If property rights are not protected (i.e. I can steal what you produce) there is no incentive to undertake economic activity
- **Solution:** Government regulation and enforcement.

2. Decreasing Costs/Economies of Scale

- Goods for which the average cost of production decreases as quantity produced increases over a large scale
- **Example:** Public utilities, public transportation, telecomms, etc.
- **Problem:** Efficient production results with one (or few) large firms.
 - Such a market has incentive to act as monopoly which results in under-production
- **Solution:** Government grants monopoly and regulates production to get more efficient outcome.

Asymmetric Information

Private/Asymmetric Information:

- One party in a two-party transaction possesses more information than the other:
 - *Firms* may possess more information
 - **Example:** Product quality, drug safety/effectiveness, etc.
 - *Individuals* may possess more information
 - **Example:** Individual health, personal risk-avoidance, etc.
- **Problem:** Party possessing more information can take advantage of other party which results in inefficient outcome
- **Solution:** Government creates oversight bodies that regulate functioning of such markets to create more efficient outcome.

Final Conclusion

1. Public policy must be able to tackle issues on market failures.
2. The role of government, i.e. public policy-making, is inevitable and will never end.