



# Consumer Behavior & Public Policy

## Lecture #3 Microeconomics

# Topics



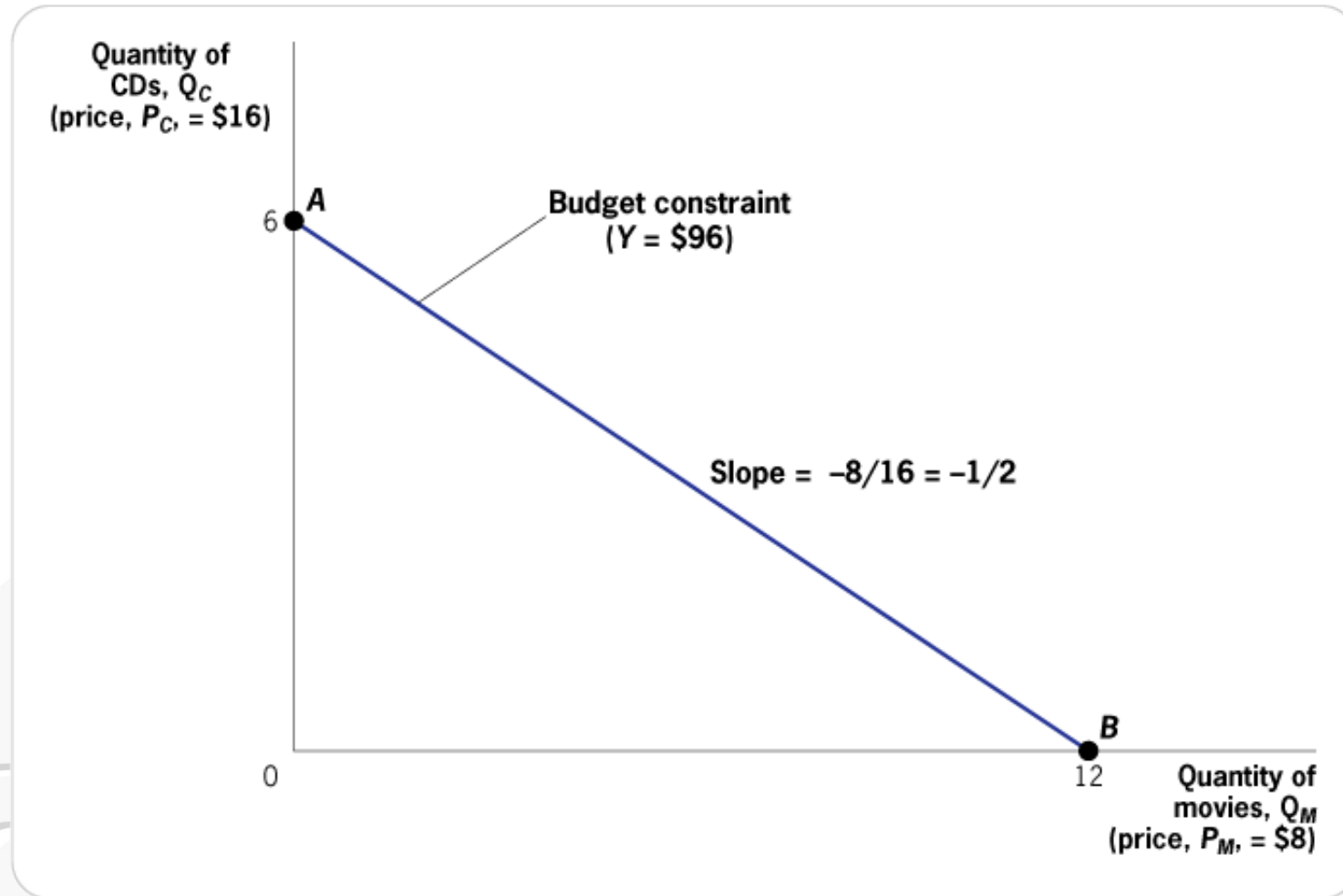
1. Welfare economics: how understanding consumer behavior is important for making public policy.
2. Budget constraint and indifference curves.
3. Pure exchange economy: the Pareto efficiency.
4. The role of government: public policy.



# 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.

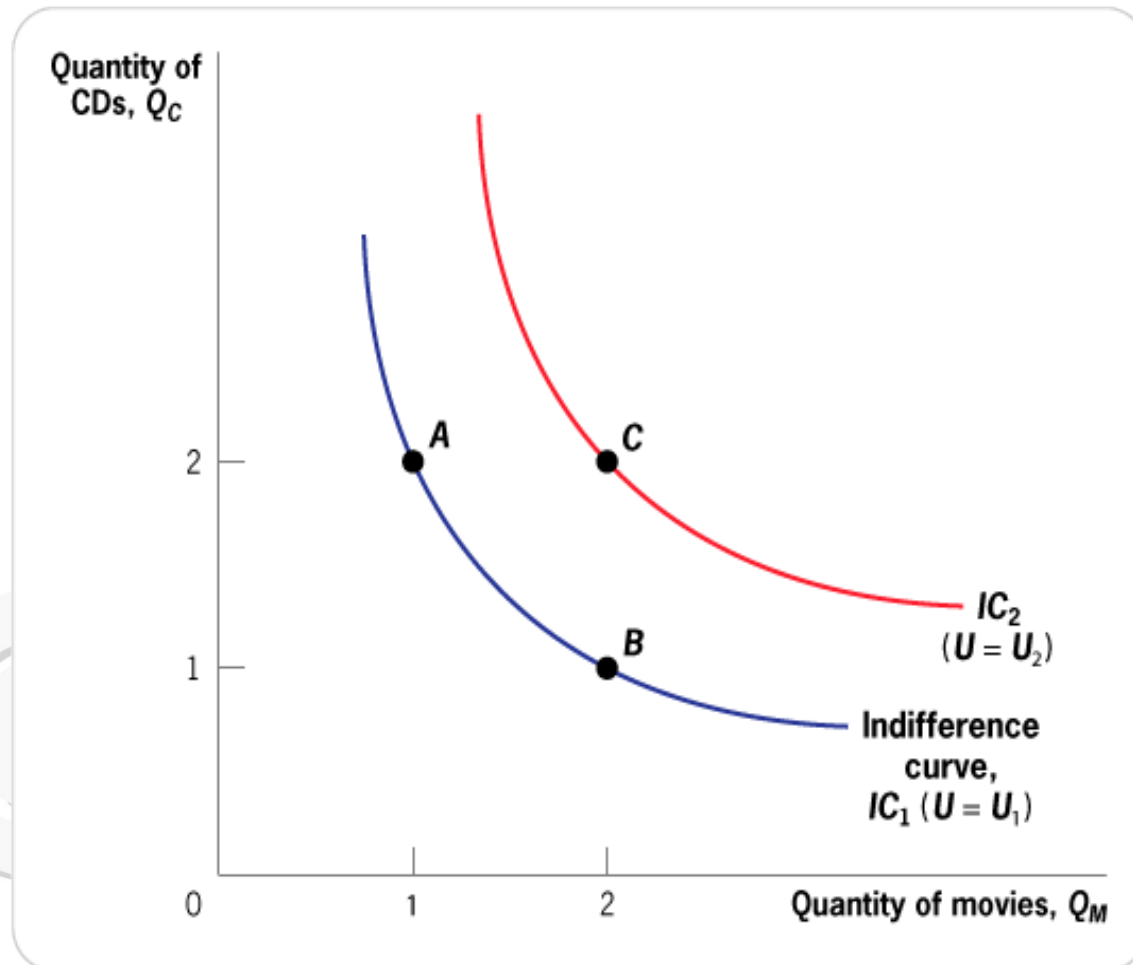
# All consumers have budget constraints



**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



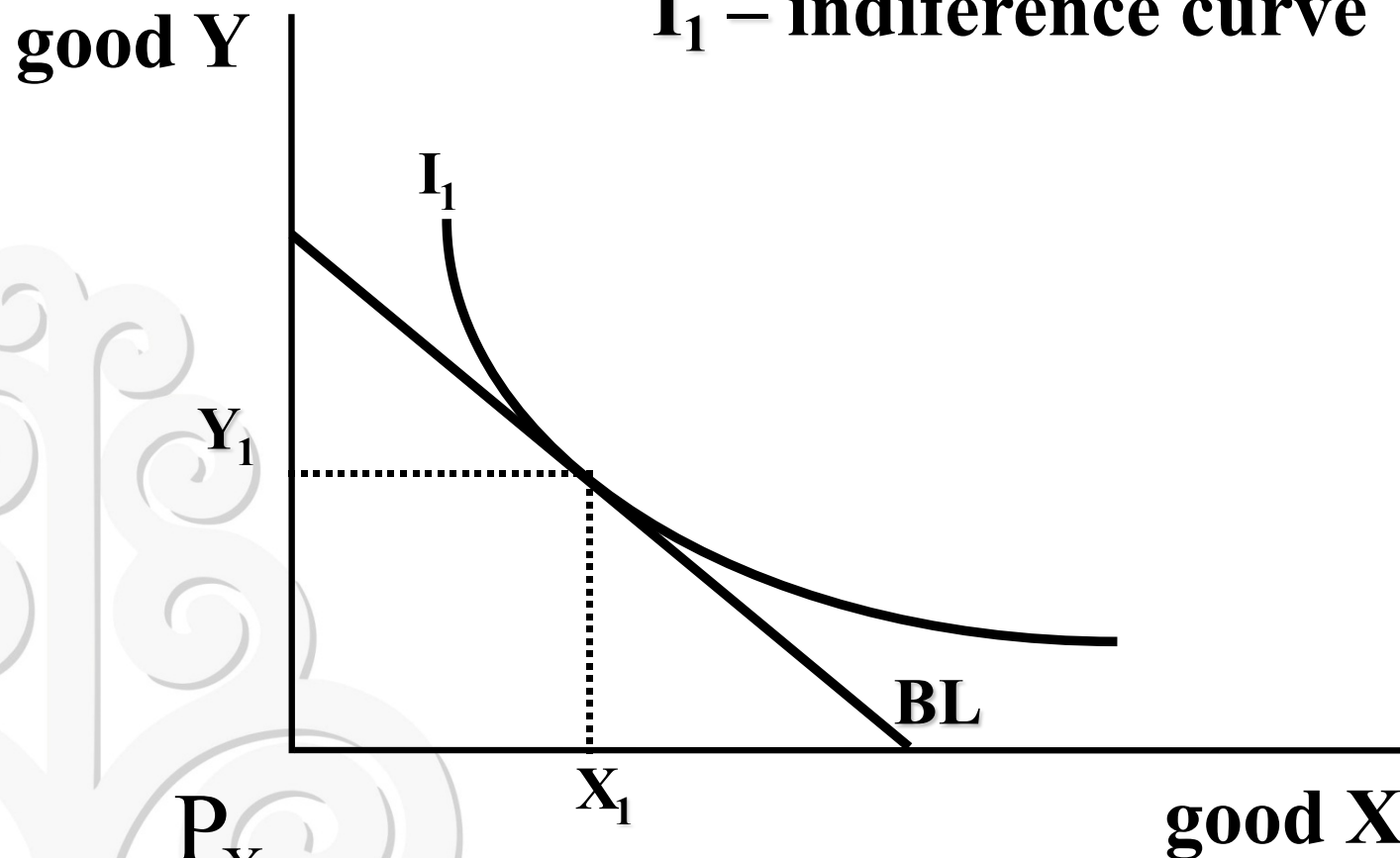
## Indifference Curves for Bundles of CDs and Movies

• 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**

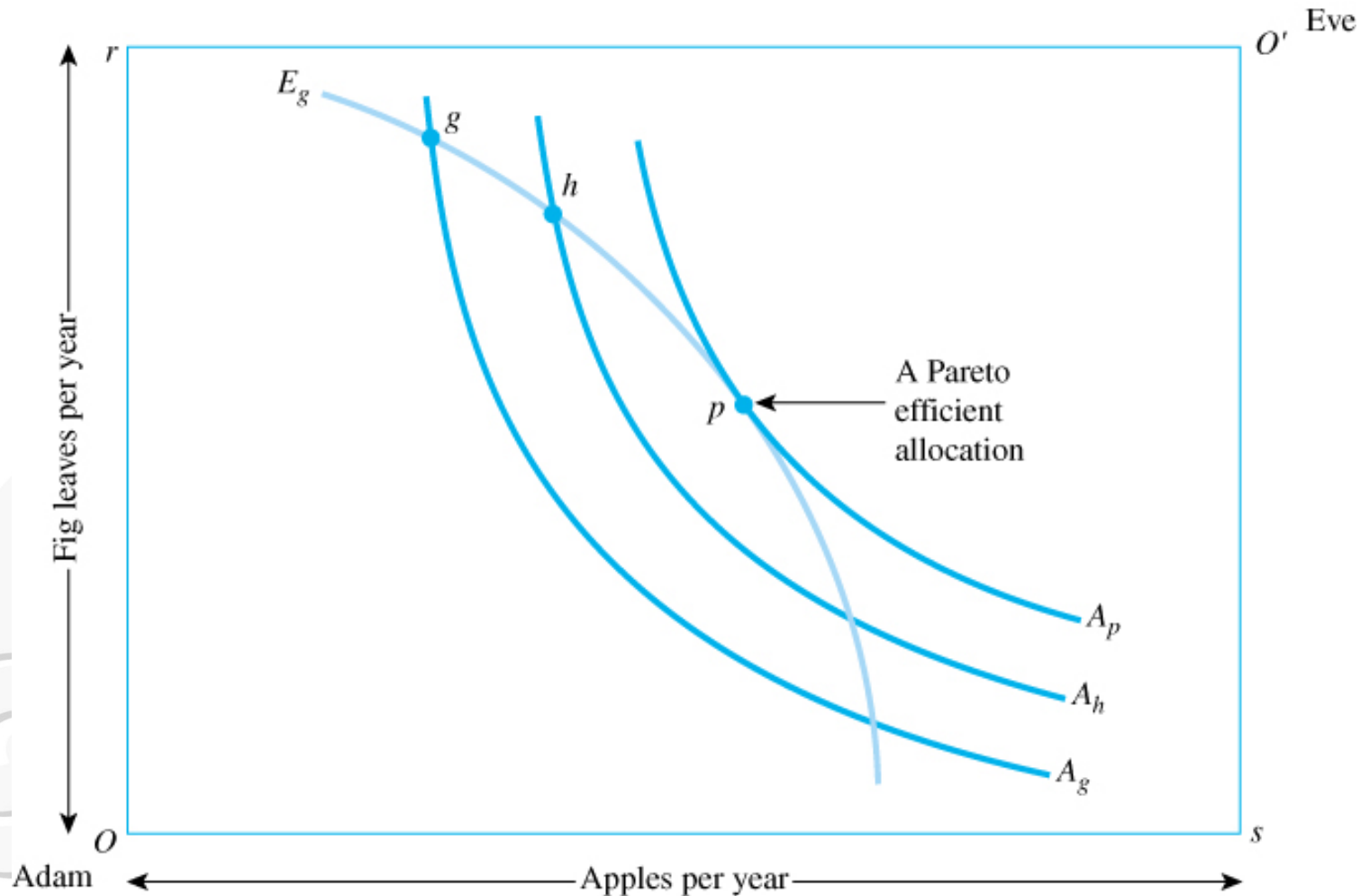
**I<sub>1</sub> - indifference curve**



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



# Indifference Curves of Two Consumers





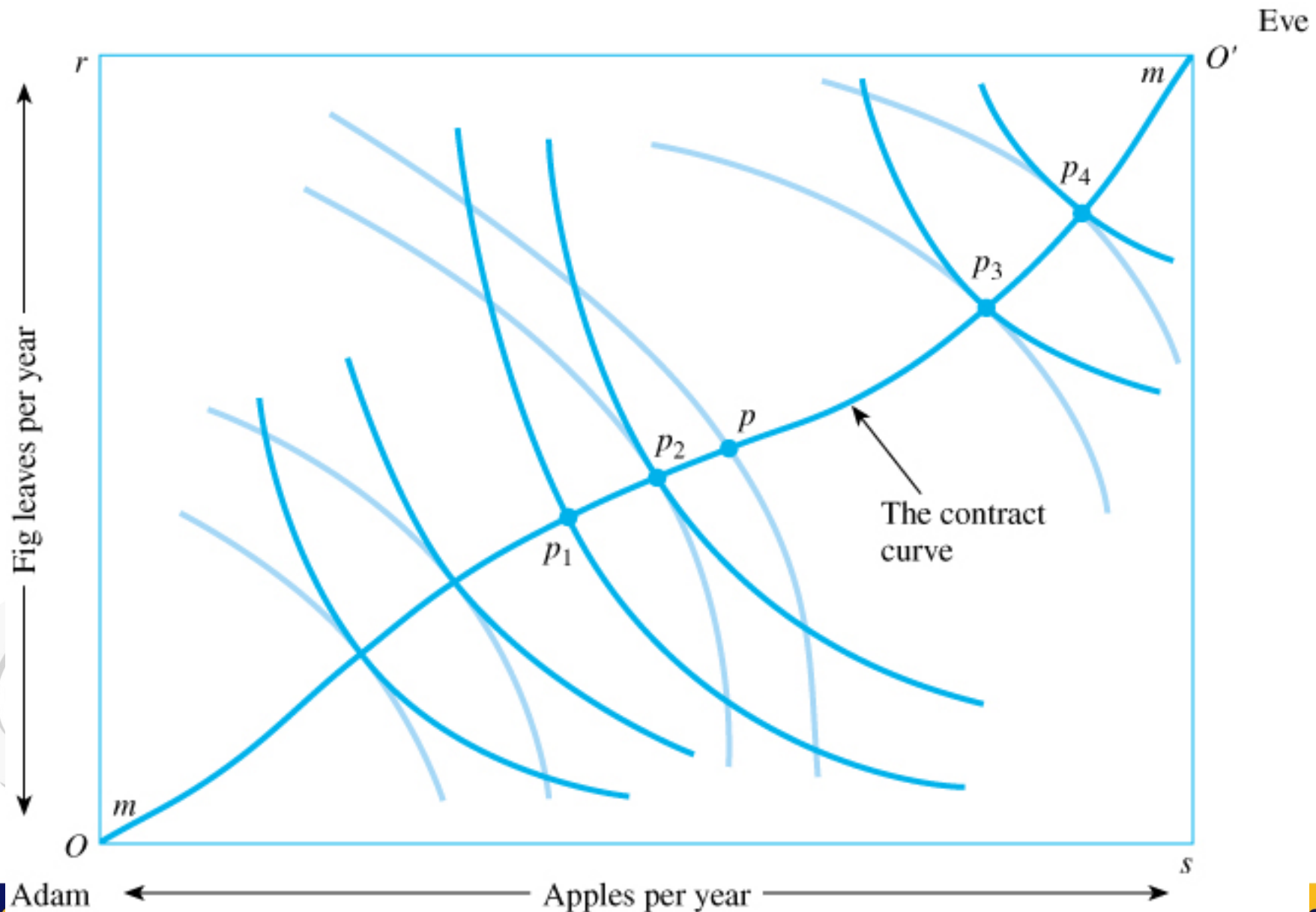
# Pure Exchange Economy

- 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. Monopoly
4. Property rights and economy of scales
5. 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.

# Monopoly



- With higher prices, consumers will demand less quantity, and hence the quantity produced and consumed will be lower than it would be under a more competitive market structure.
- The bottom line is that when companies have a **monopoly**, prices are too high and production is too low.
- The New York Times (22 April 2017) reported that a whopping **77% of mobile social traffic is owned by Facebook**, 74% of the e-book market is Amazon, and Google owns 88% percent of the search advertising market.



# 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.



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**THANK YOU**

