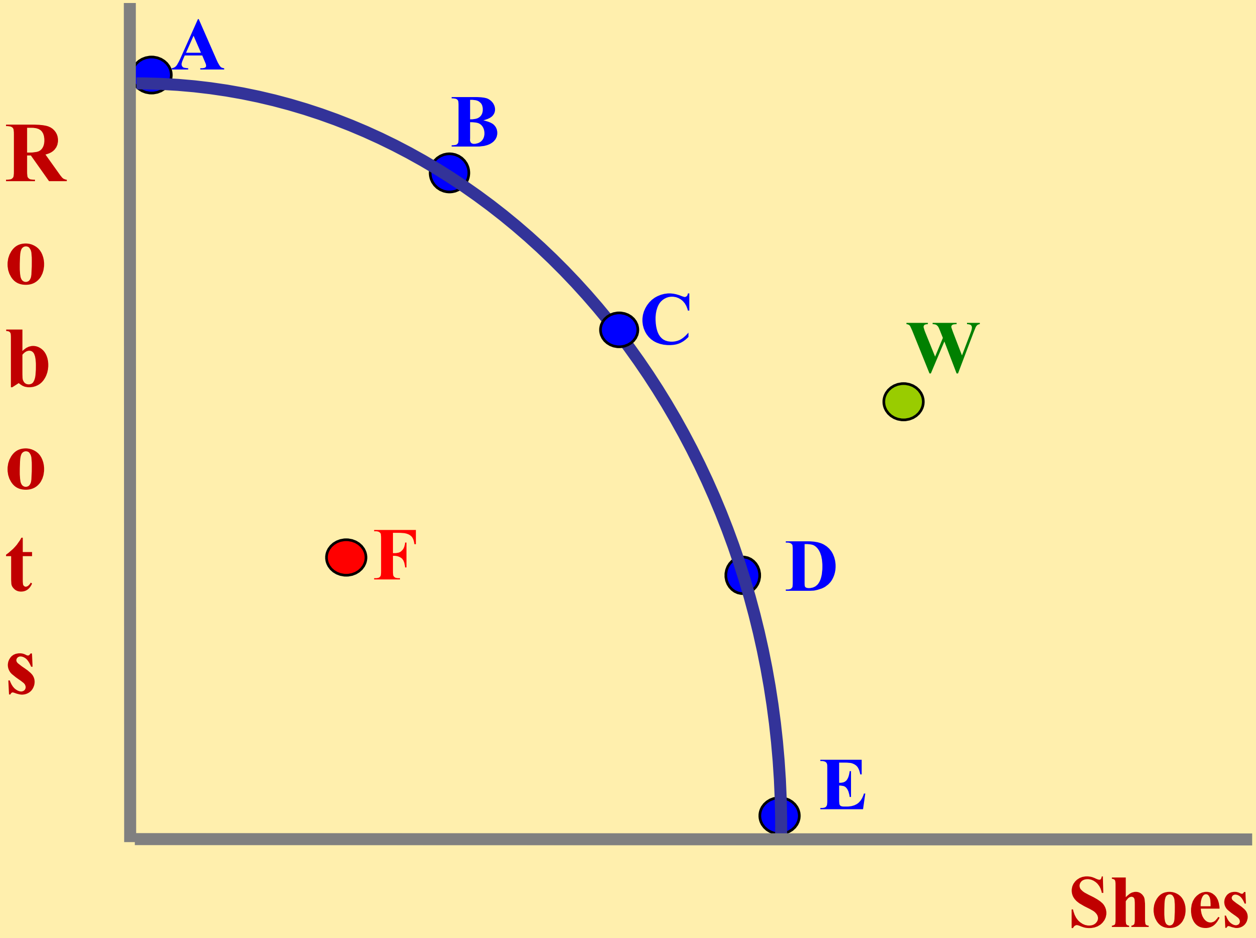
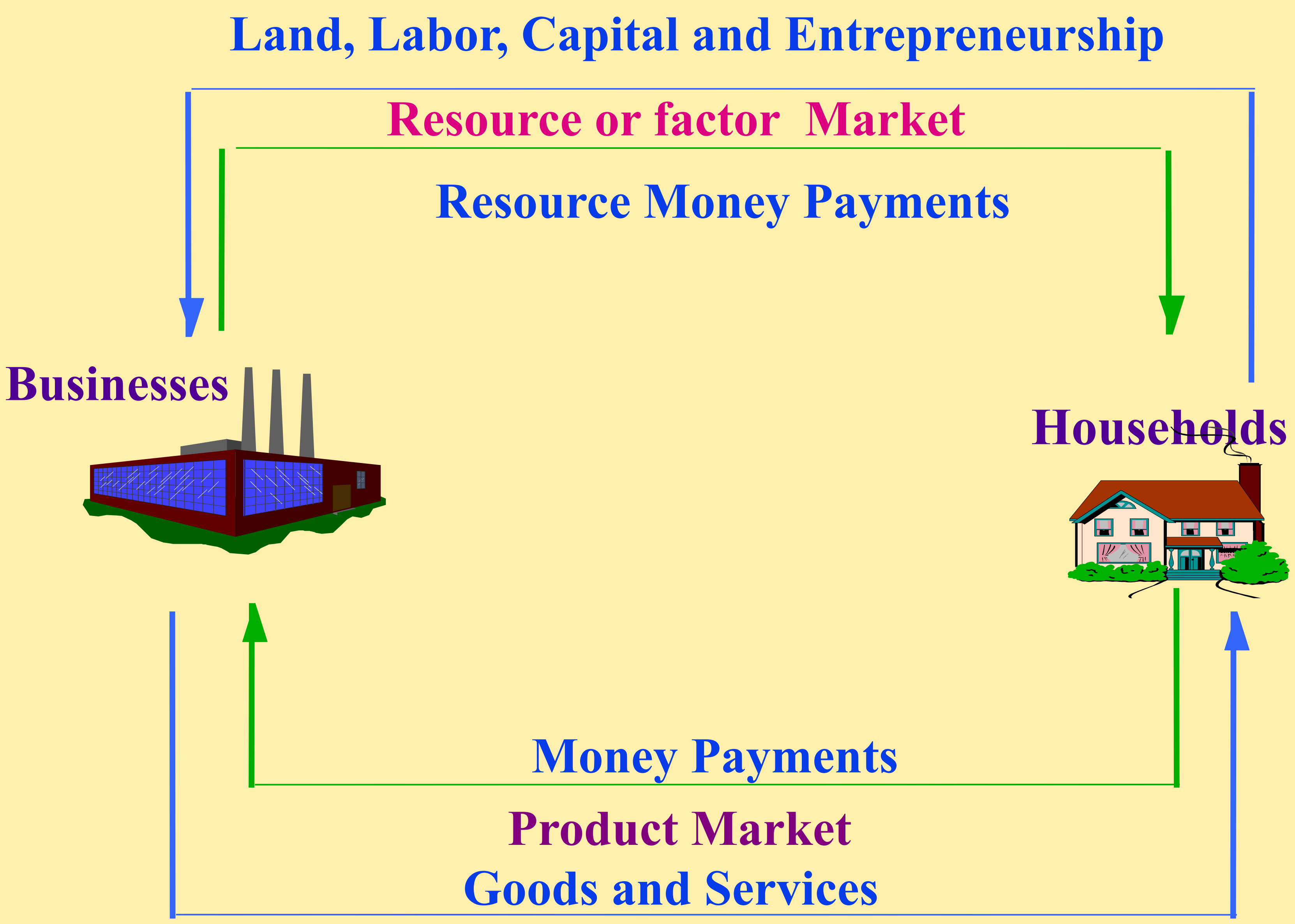
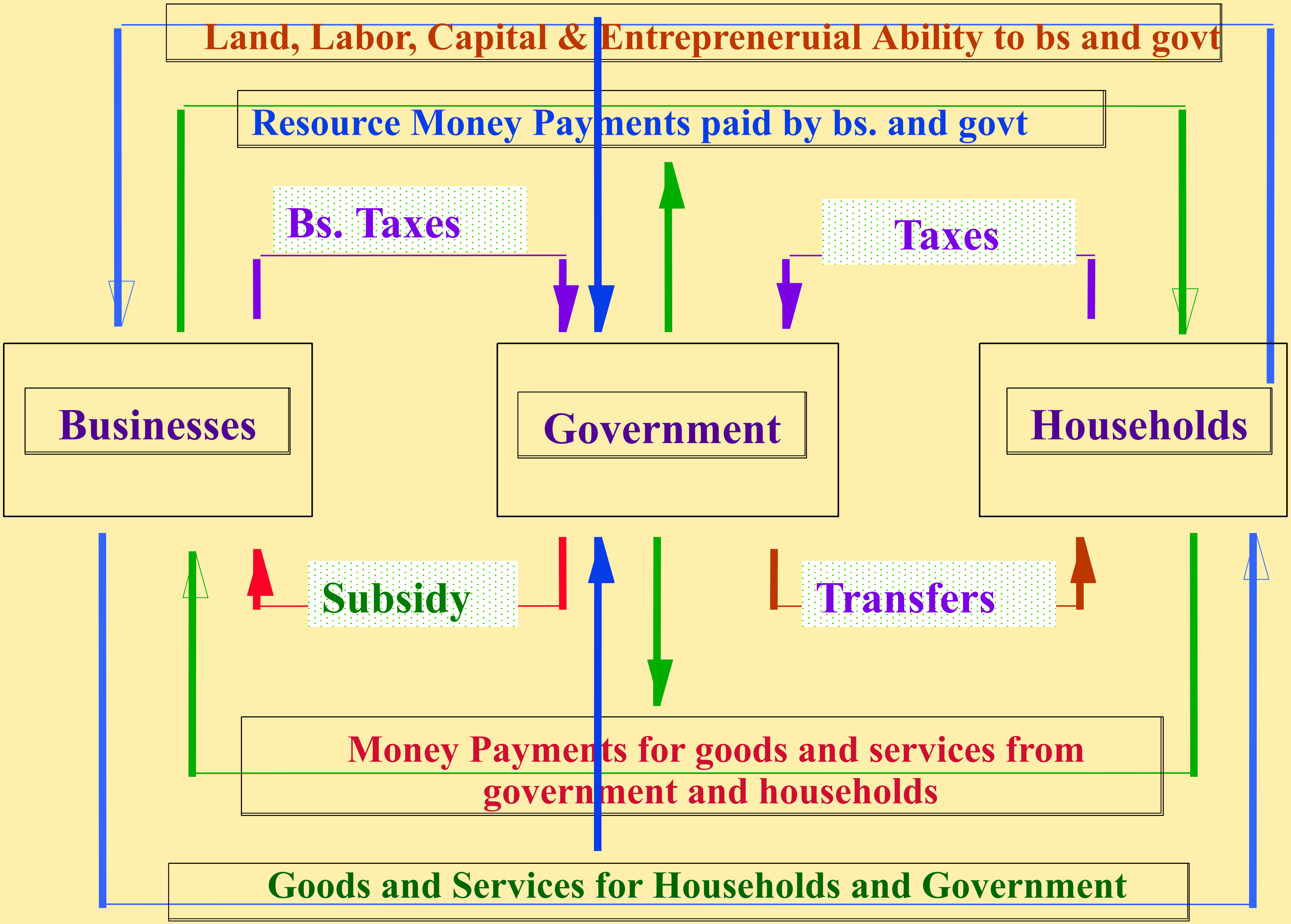
AP MICRO ECONOMICS EXAM REVIEW

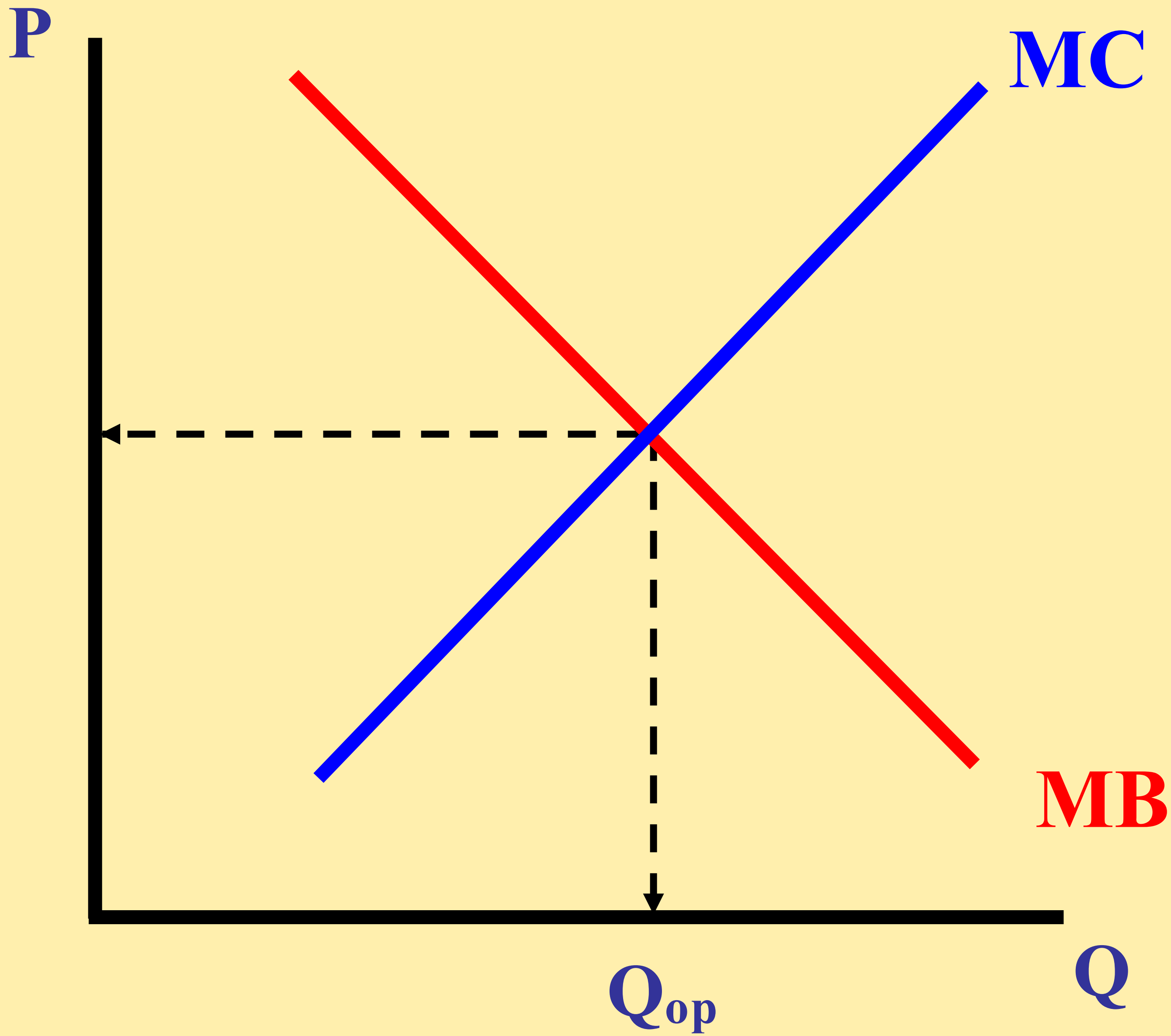
Production Possibility Curve



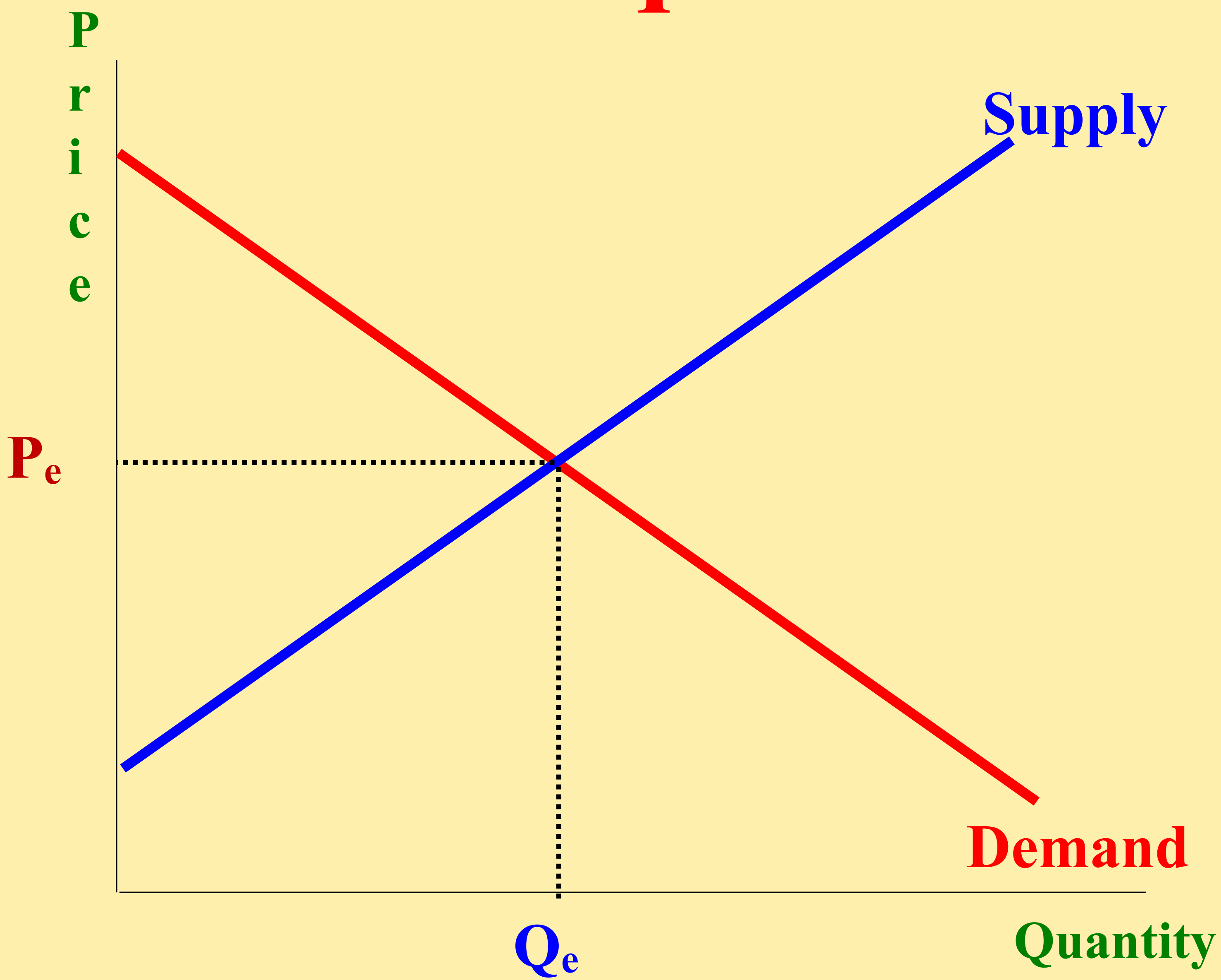

Land, Labor, Capital and Entrepreneurship
Resource or factor Market
Resource Money Payments
Businesses
Households
Money Payments
Product Market
Goods and Services


Land, Labor, Capital & Entrepreneruial Ability to bs and govt
Resource Money Payments paid by bs. and govt
Bs. Taxes
Taxes
Businesses
Government
Households
Subsidy
Transfers
Money Payments for goods and services from government and households
Goods and Services for Households and Government

Allocative Efficiency



Market Equilibrium



A change in Demand versus a change in the Quantity Demanded

Change in Demand

√ Moves the curve

- Income
- Future Expectations
- # of Buyers
- Consumer Information
- Taste and Preference
- Substitutes and Complements

Change in Quantity Demanded

√ Moves Along the SAME curve

- Caused only by Price change.

A change in Supply versus a change in the Quantity Supplied

Change in Supply

√ **Moves the curve**

- **Costs of Production**
- **Future Expectations**
- **# of Sellers**
- **Taxes and Subsidies**
- **Prices of goods using same resources**
- **Time period of production**

Change in Quantity Supplied

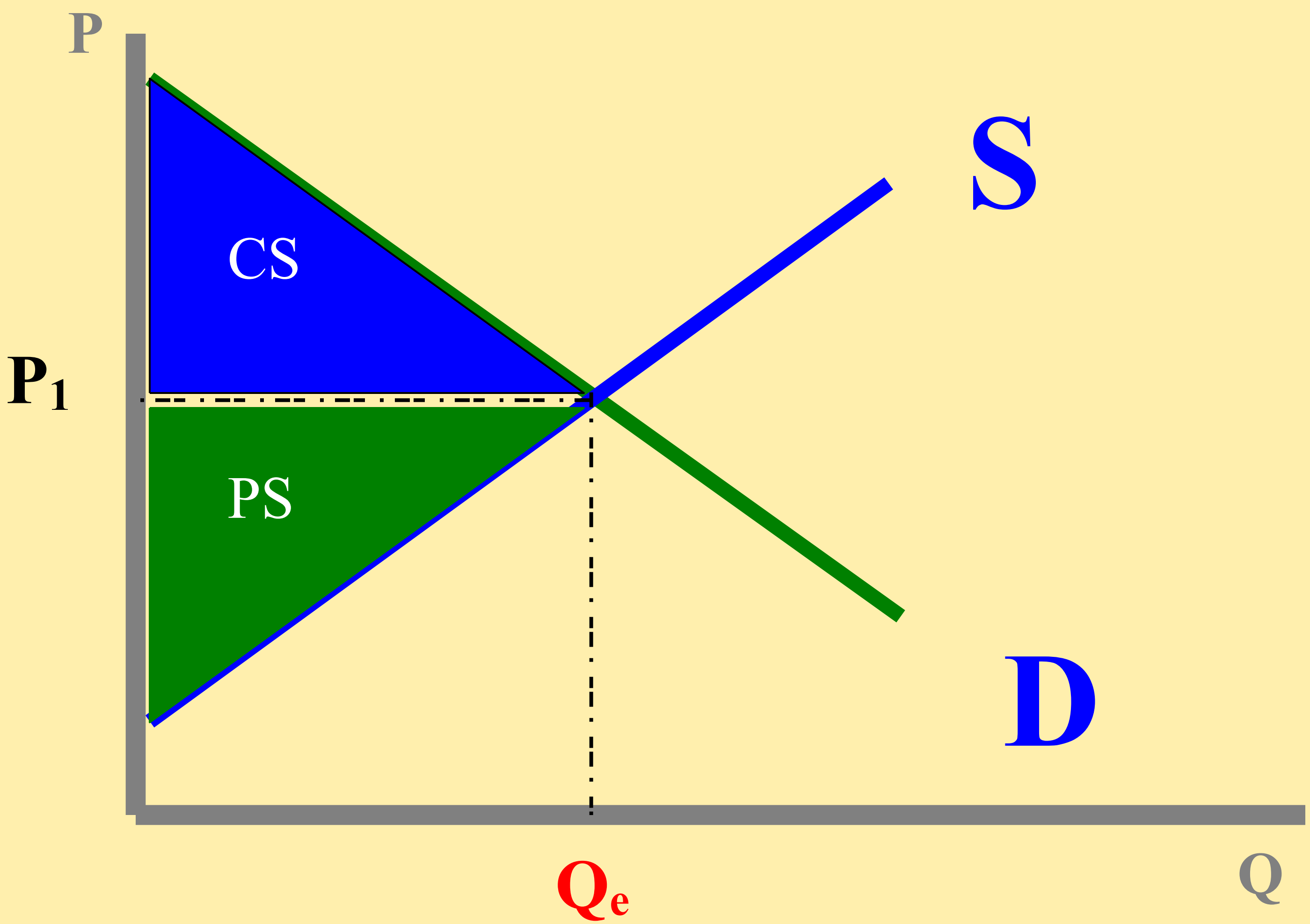
√ **Moves Along the SAME curve**

- **Caused only by Price change.**

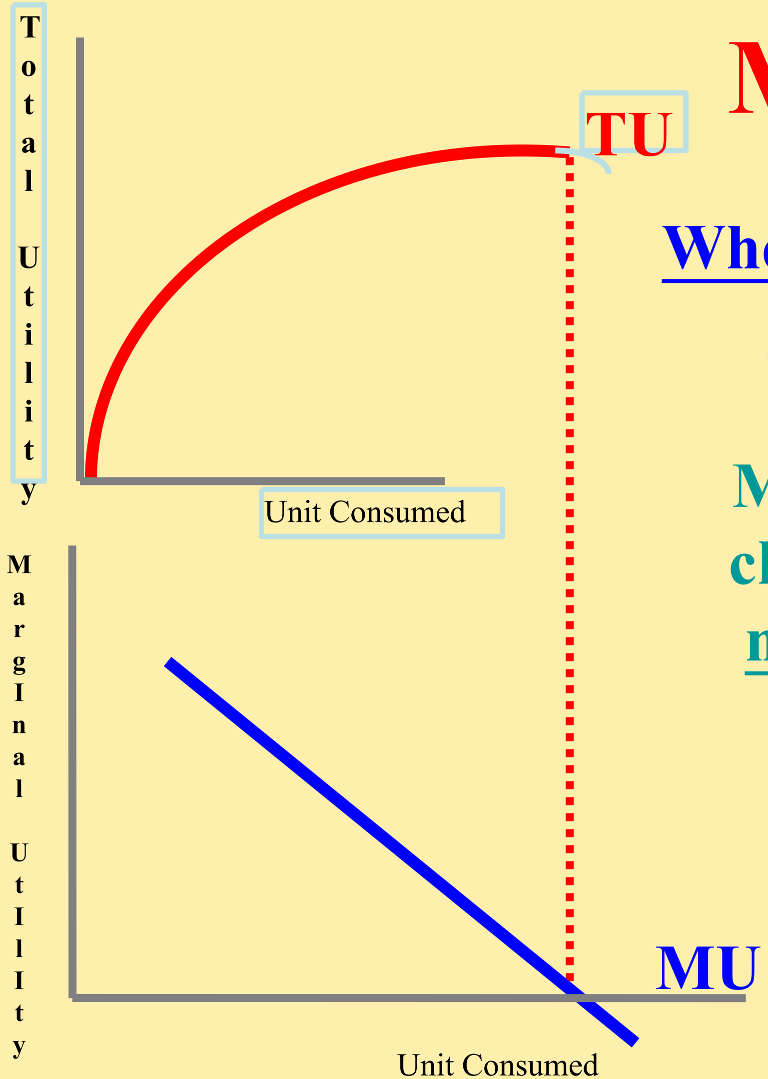
Consumer and Producer Surplus

√ The value in excess of the purchase price

√ The income the firm gets in excess of its marginal costs



Marginal Utility

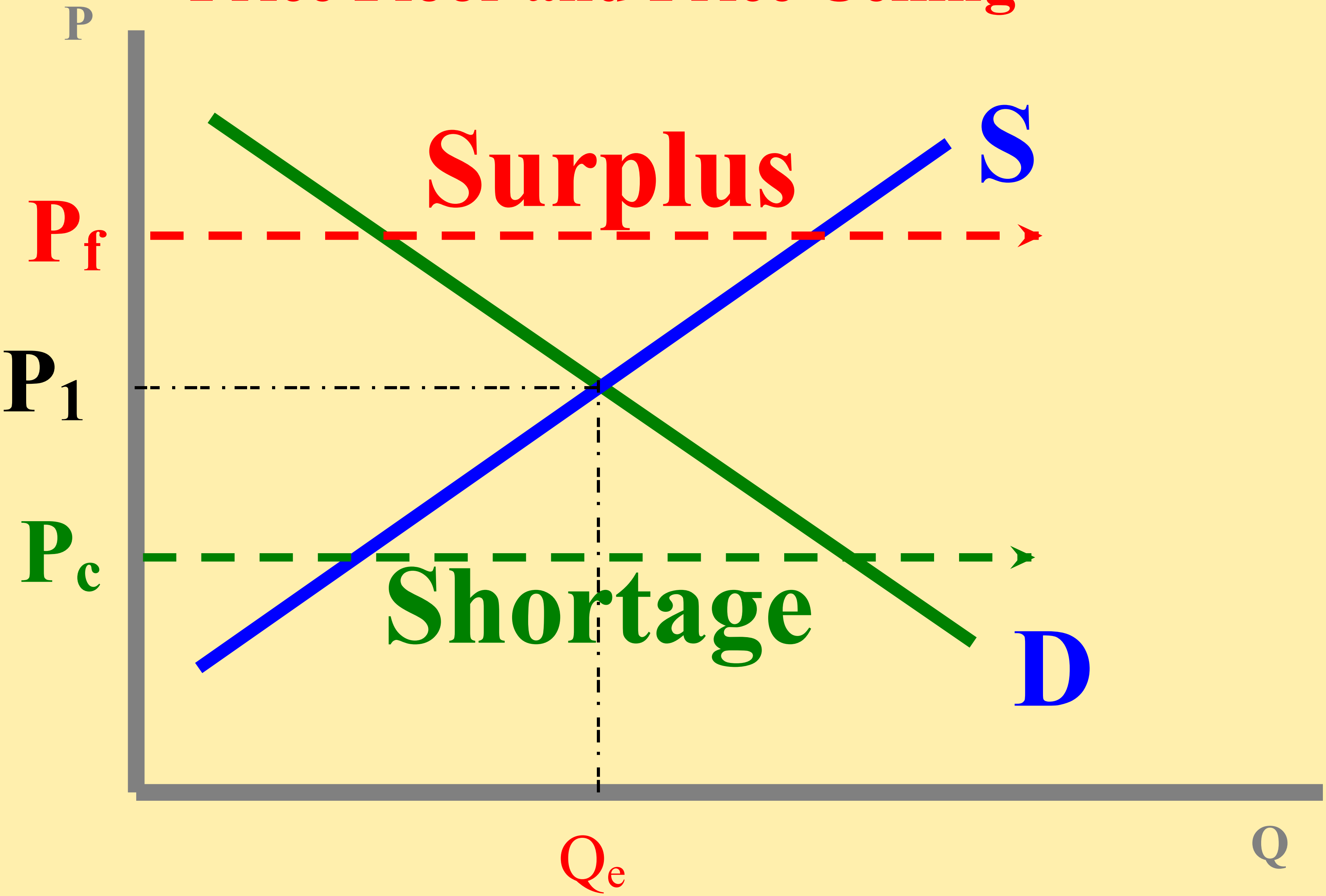


When Total Utility is at its peak, Marginal Utility is zero.

Marginal Utility reflects the change in total utility so it is negative when Total Utility declines.

Marginal Utility diminishes with increased consumption, is zero where total utility is at a maximum, and is negative when Total Utility declines.

Price Floor and Price Ceiling



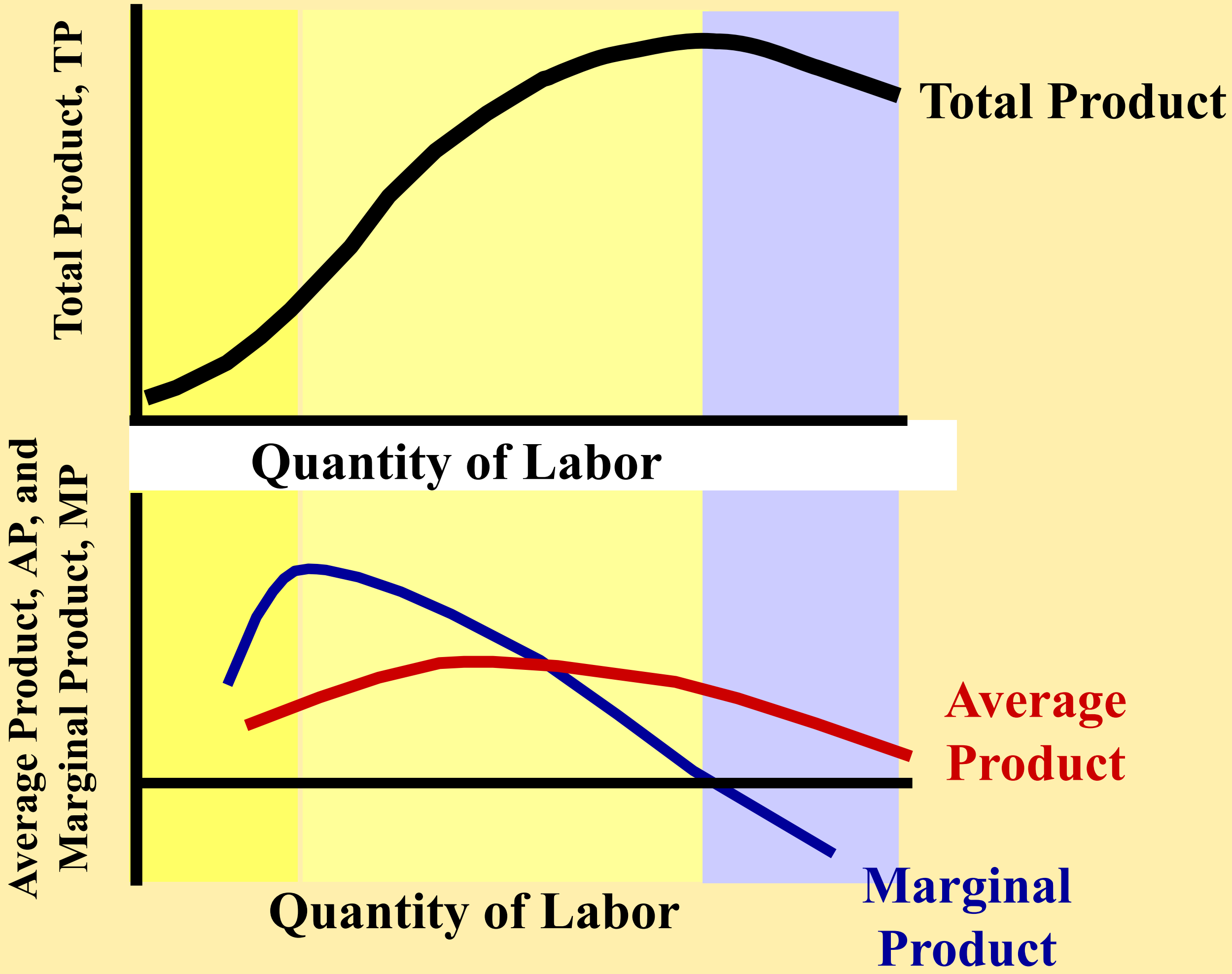
Elasticity

DEMAND $$E_d = \frac{\%\text{ change in } Q_d}{\%\text{ change in } P}$$

CROSS $$E_c = \frac{\%\,\Delta\text{ Quantity of X}}{\%\Delta\text{ Price of Y}}$$

INCOME $$E_i = \frac{\%\,\Delta\text{ Quantity}}{\%\Delta\text{ Income}}$$

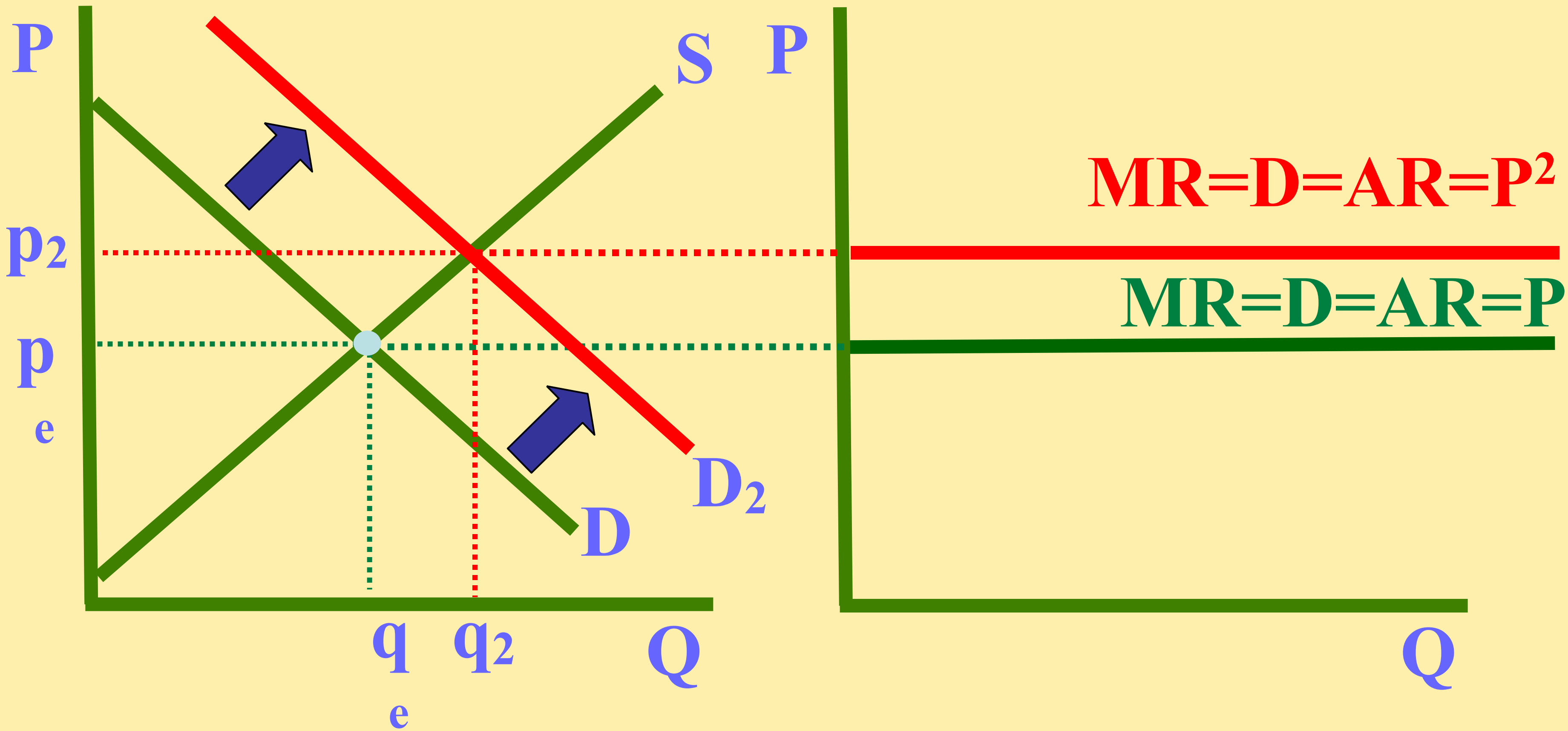
Law of Diminishing Returns



RELATIONSHIP	ECONOMIC INTERPRETATION
MR = MC	The firm has chosen the output that maximizes profits.
P > ATC	Firm is earning Economic Profits
P = ATC	Firm is earning NORMAL PROFIT (Break-Even Point) (EP = 0)
P < ATC; P > AVC	Loss Minimization
P = AVC	SHUTDOWN POINT (firm cannot cover its AVC
P < AVC	Firm does not produce

PURE COMPETITION	MONOPOLY
P = MR The firm's DEMAND CURVE is infinitely ELASTIC	P > MR The firm's DEMAND CURVE is relatively INELASTIC.
MR = MC The firms maximizes profit.	MR = MC The firms maximizes profit.
P= ATC Long Run (NORMAL PROFITS)	P $\geq$ ATC Long Run ECONOMIC PROFITS.
PRODUCTIVE EFFICIENCY P = min ATC Firm is forced to operate with maximum productive efficiency. (Least-Cost Method Production)	PRODUCTIVE INEFFICIENCY P > min ATC Firm is not forced to operate with maximum productive efficiency. (Least-Cost Method Production not necessary)
ALLOCATIVE EFFICIENCY P = MC There is an optimal allocation of resources.	ALLOCATIVE INEFFICIENCY P > MC There is an UNDERALLOCATION of resources.

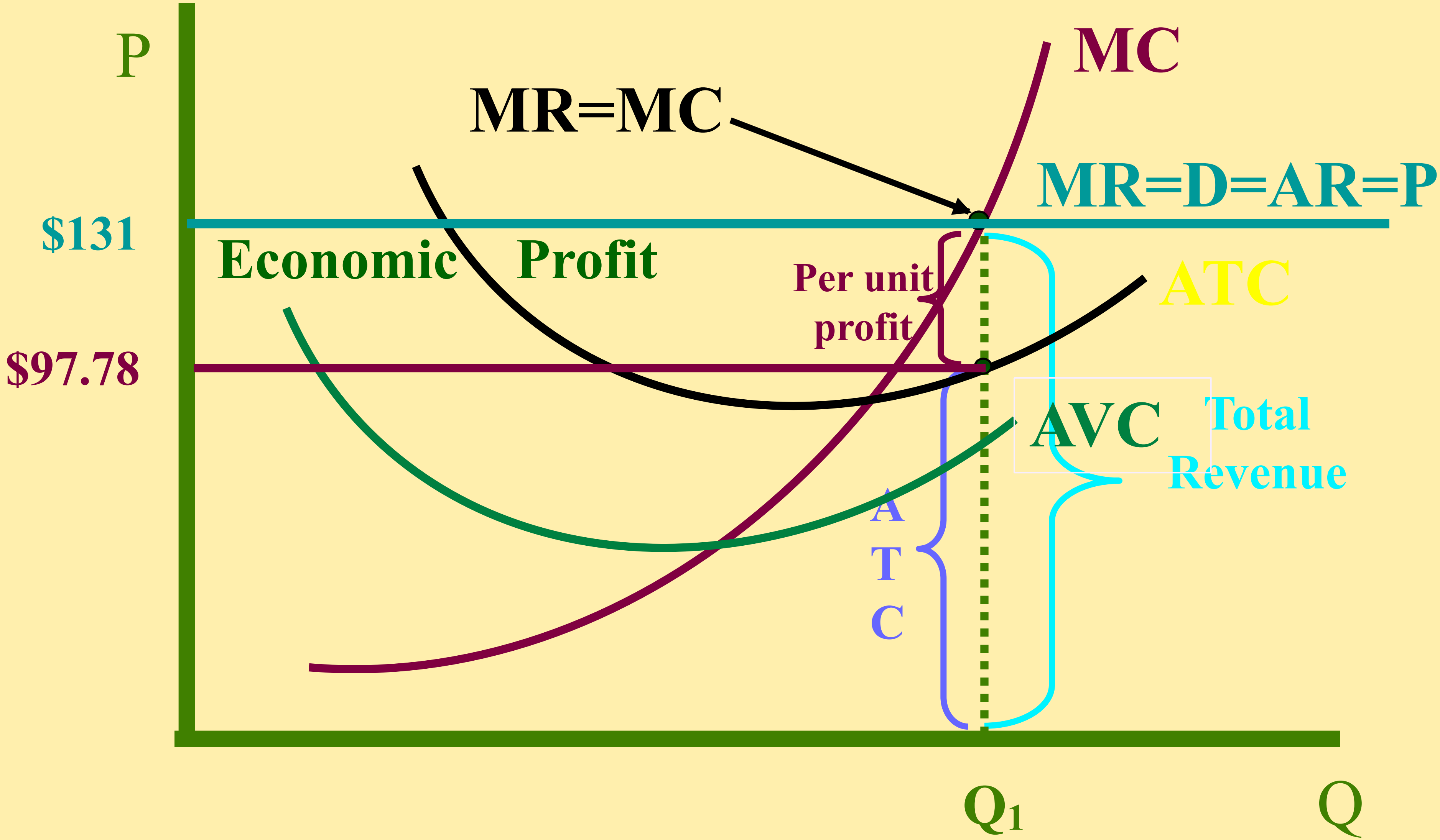
Pure Competition



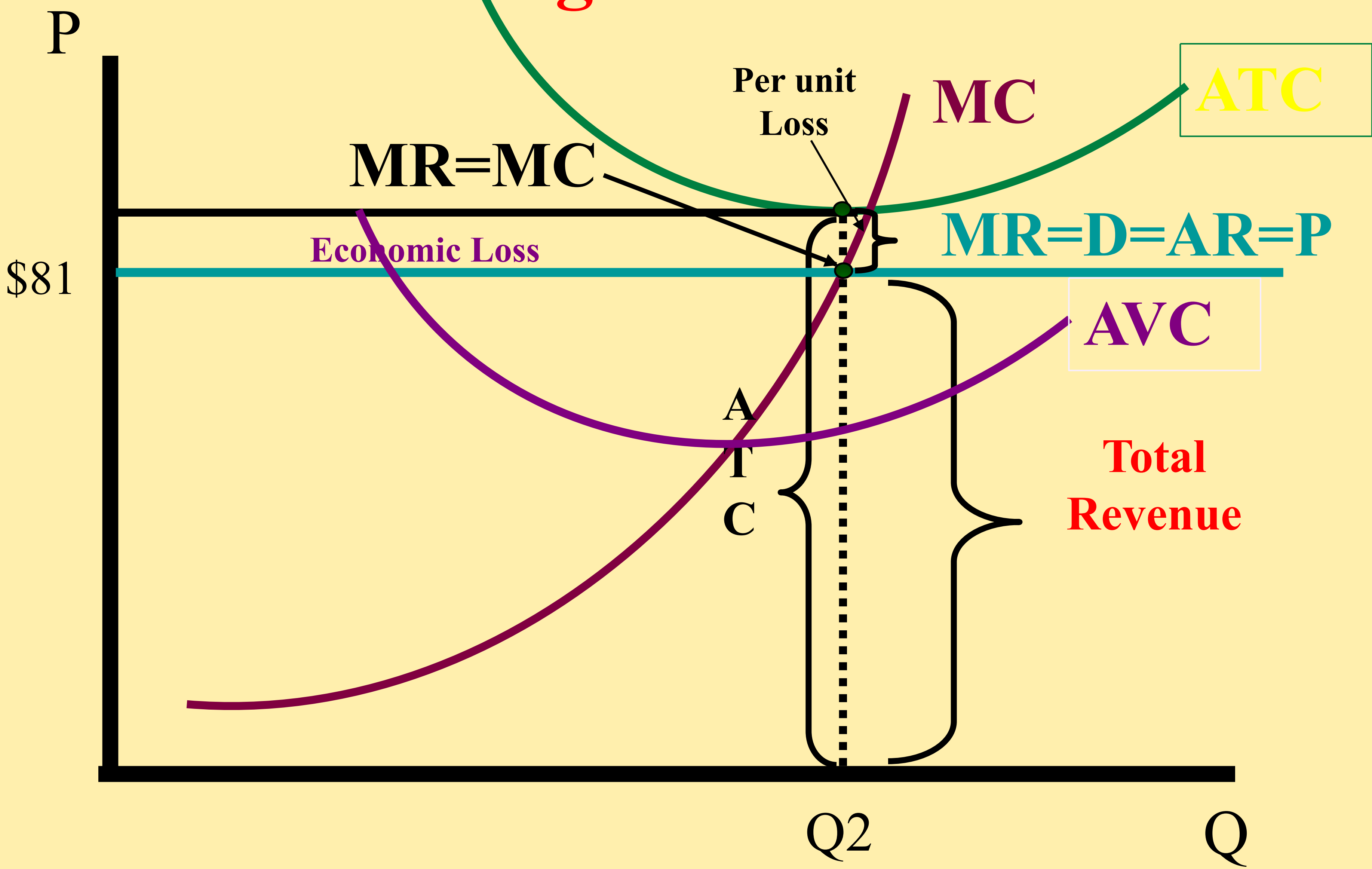
The Market

Individual firm

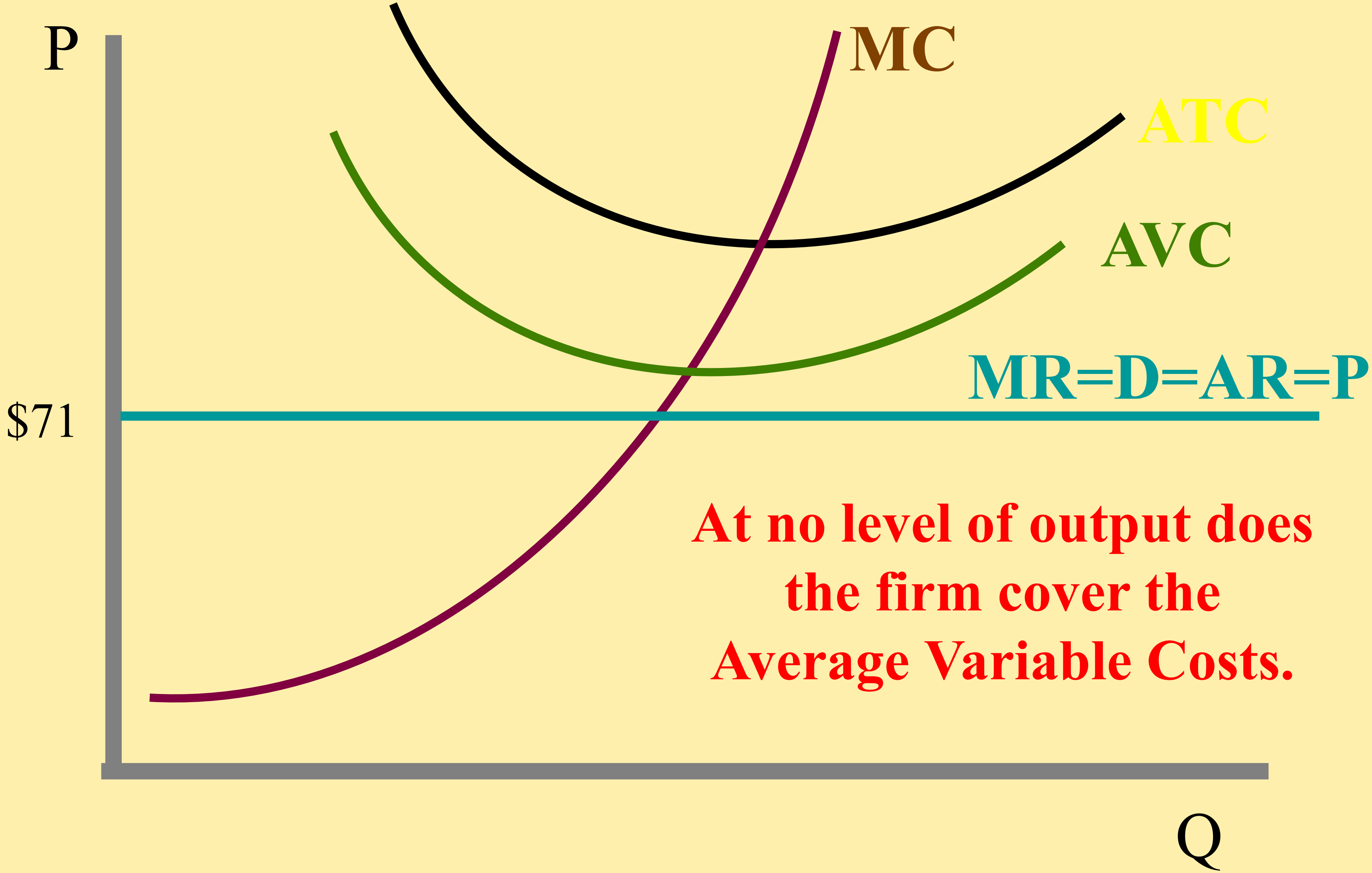
Firm showing Economic Profit



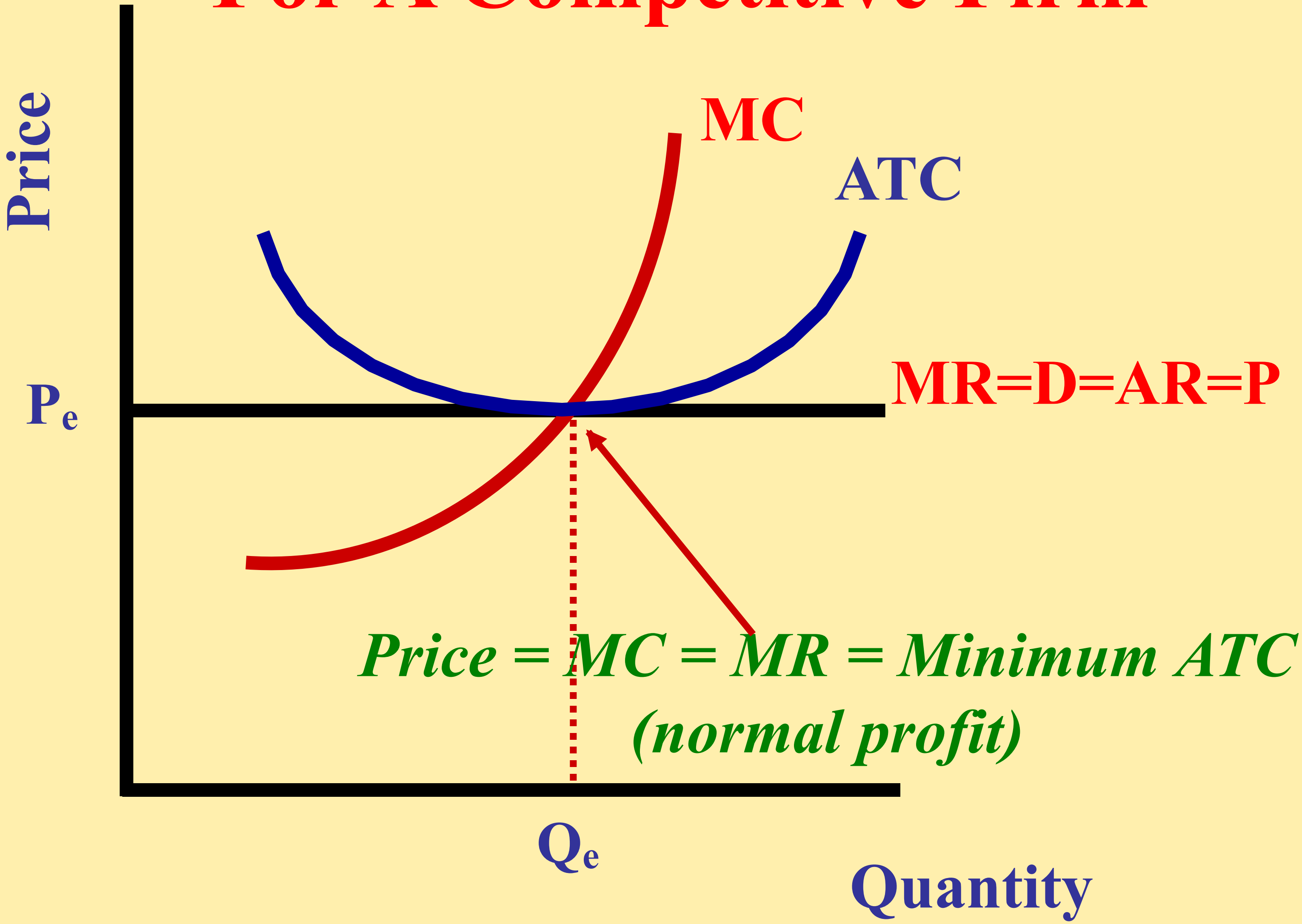
Firm showing Economic Loss



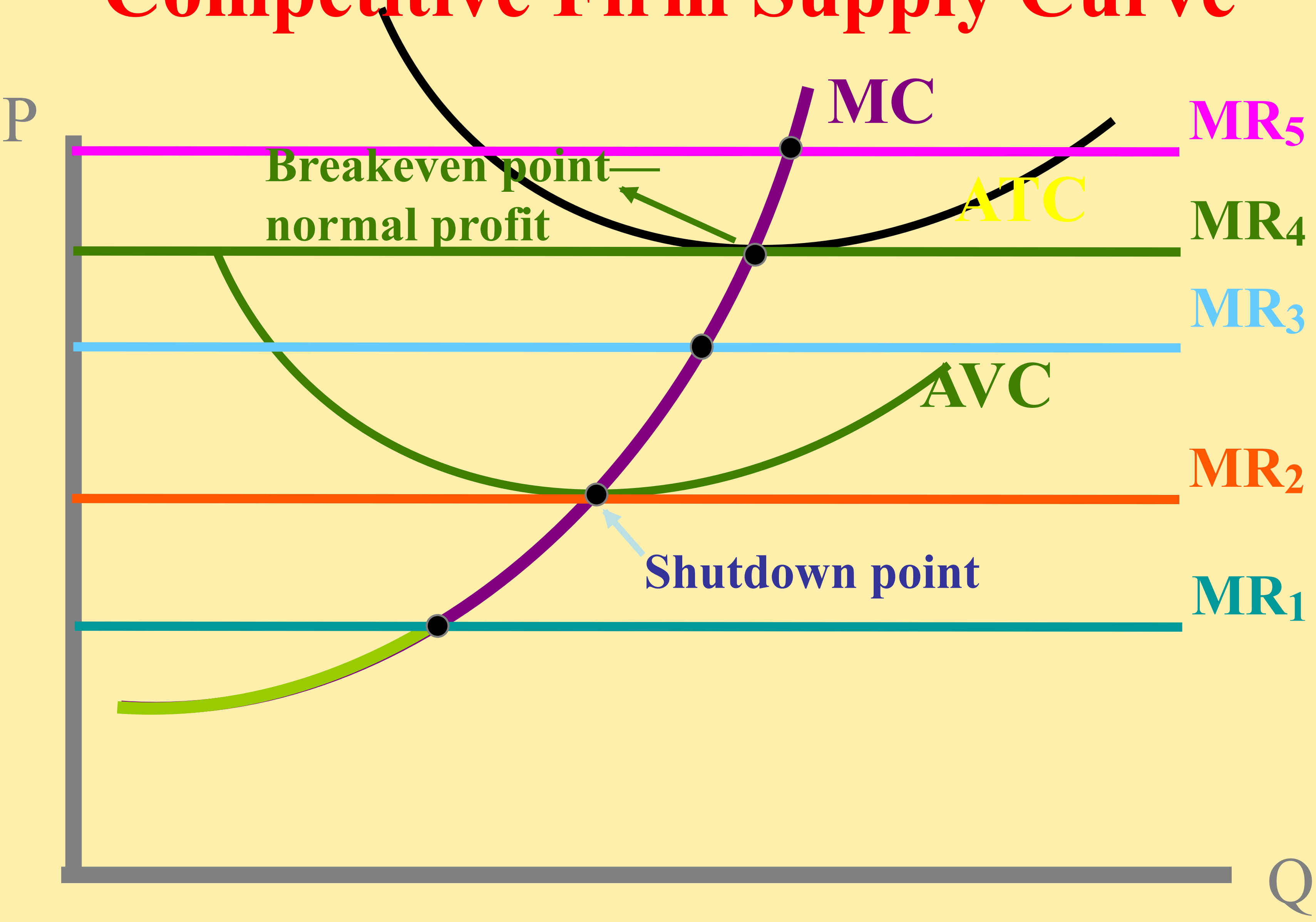
Firm showing Shutdown position



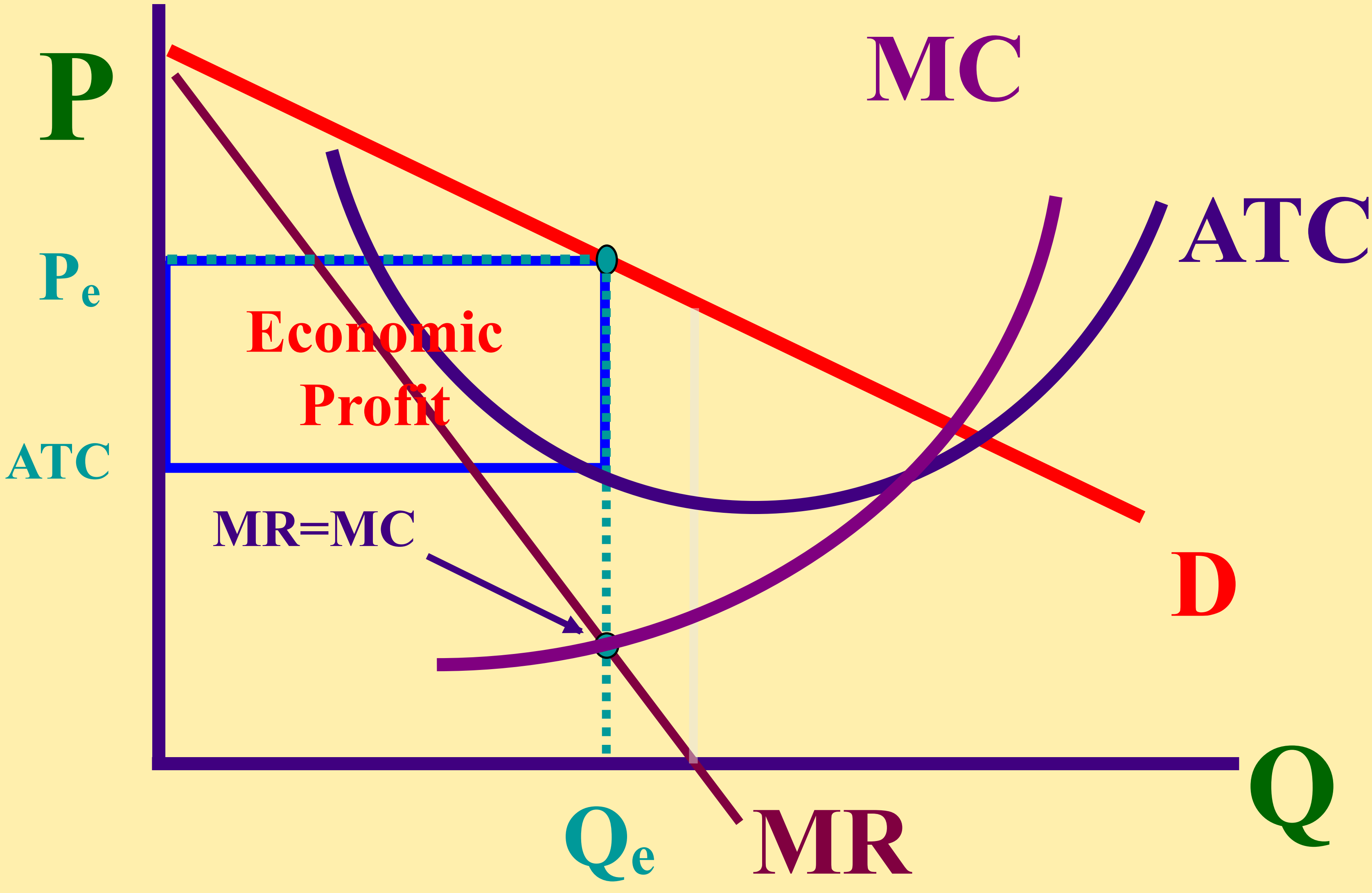
Long-run Equilibrium For A Competitive Firm



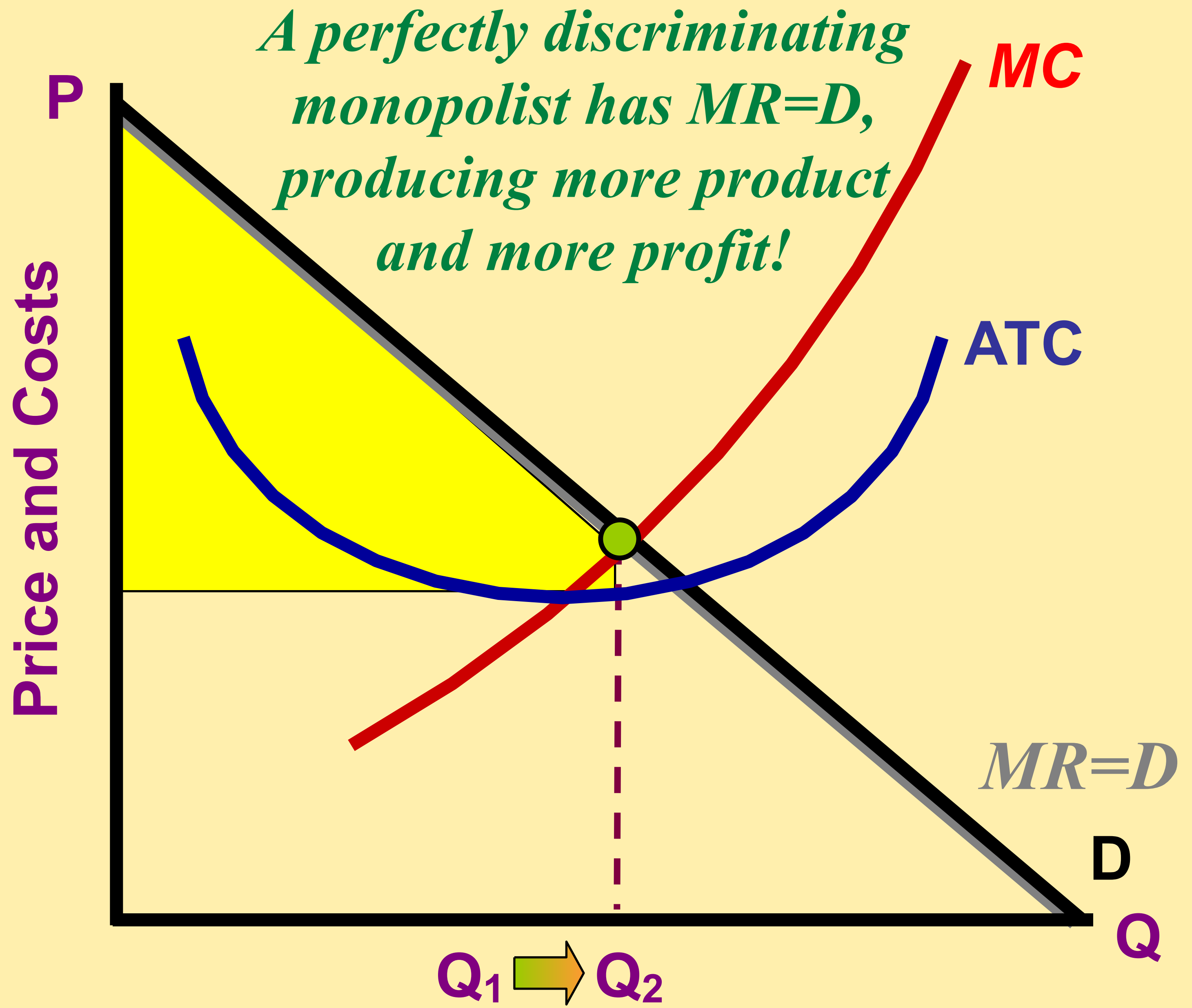
Competitive Firm Supply Curve



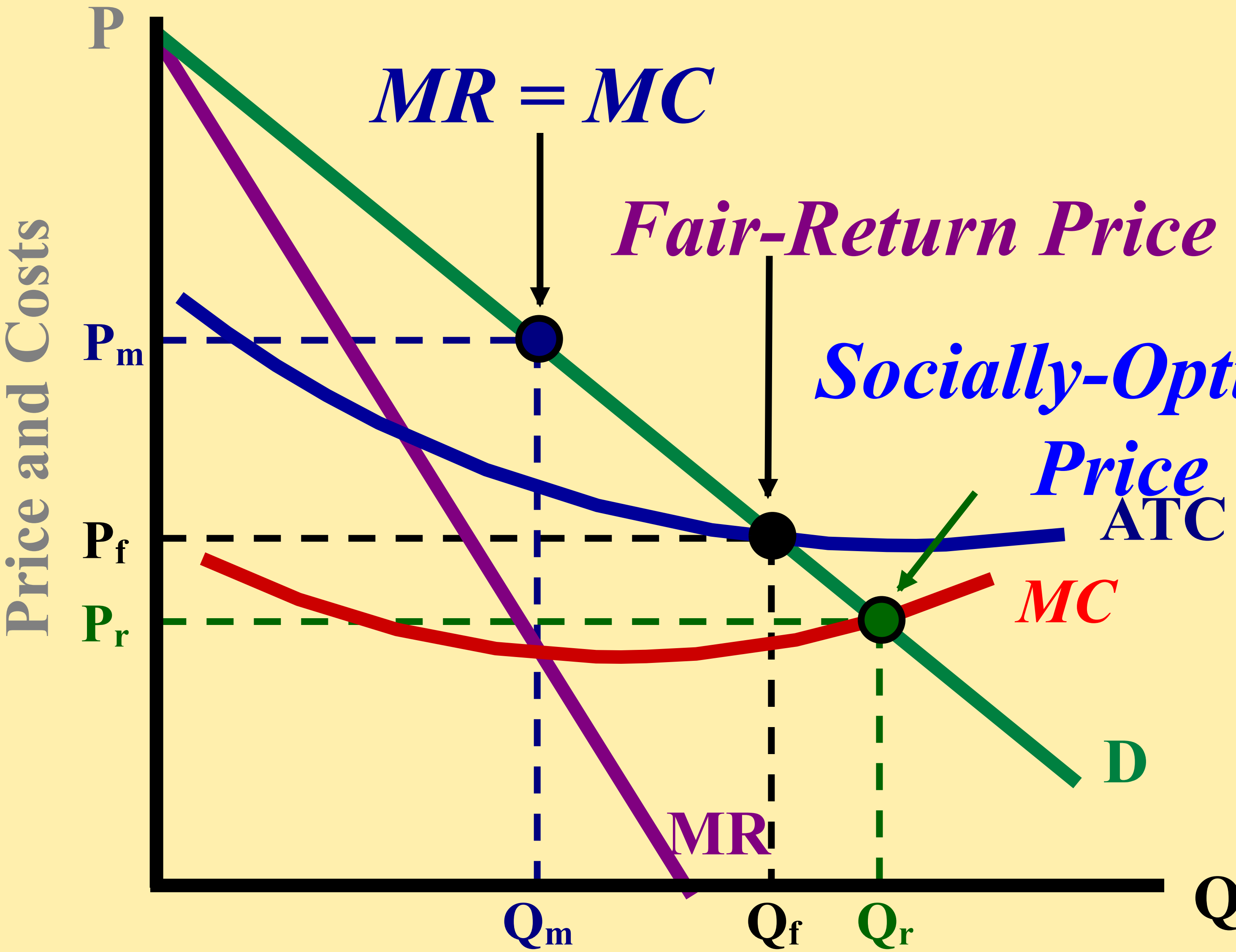
Single Price Profit-Maximizing Monopoly



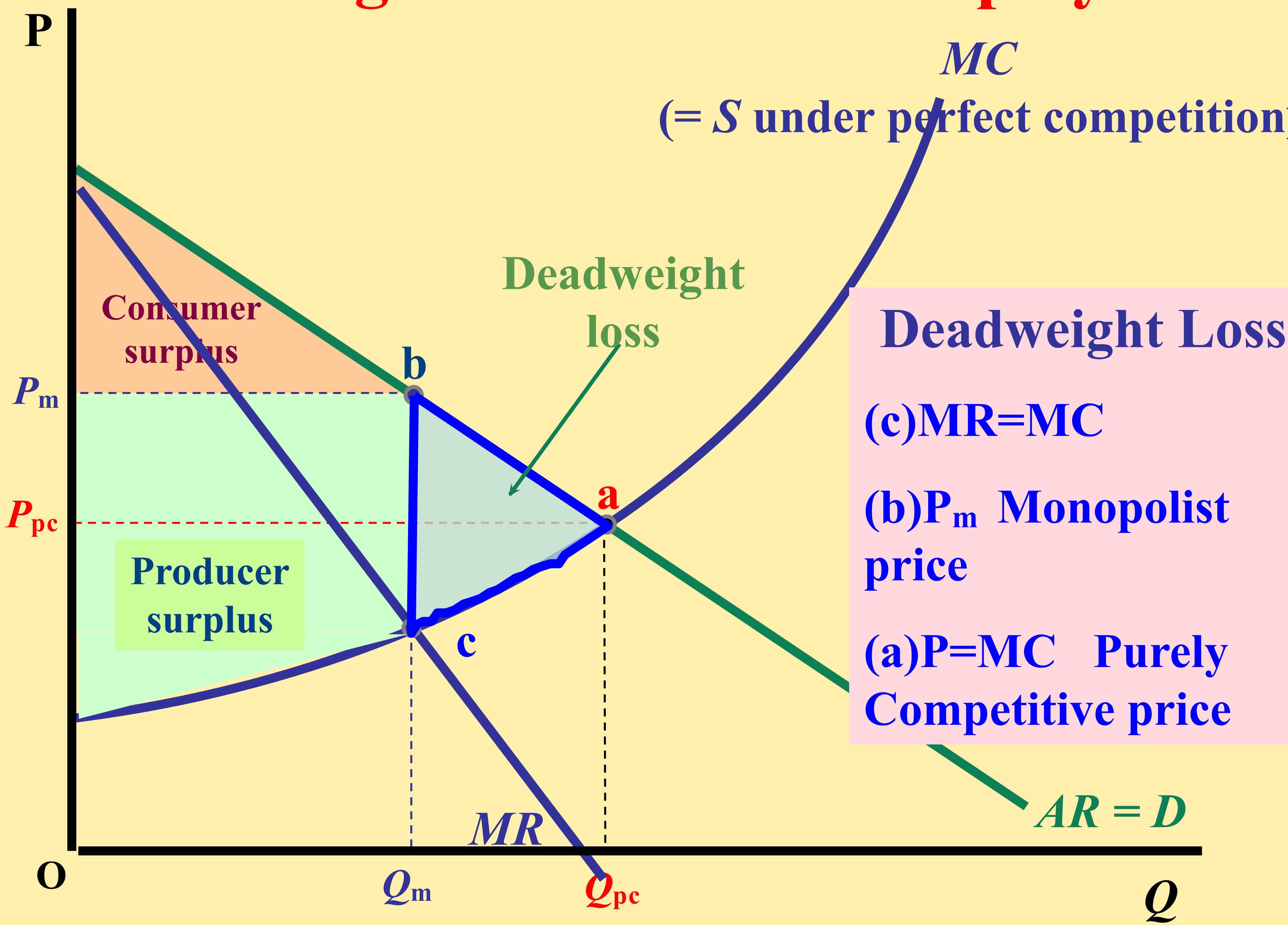
PRICE DISCRIMINATION



Dilemma of Regulation: Which Price?



Deadweight loss under monopoly



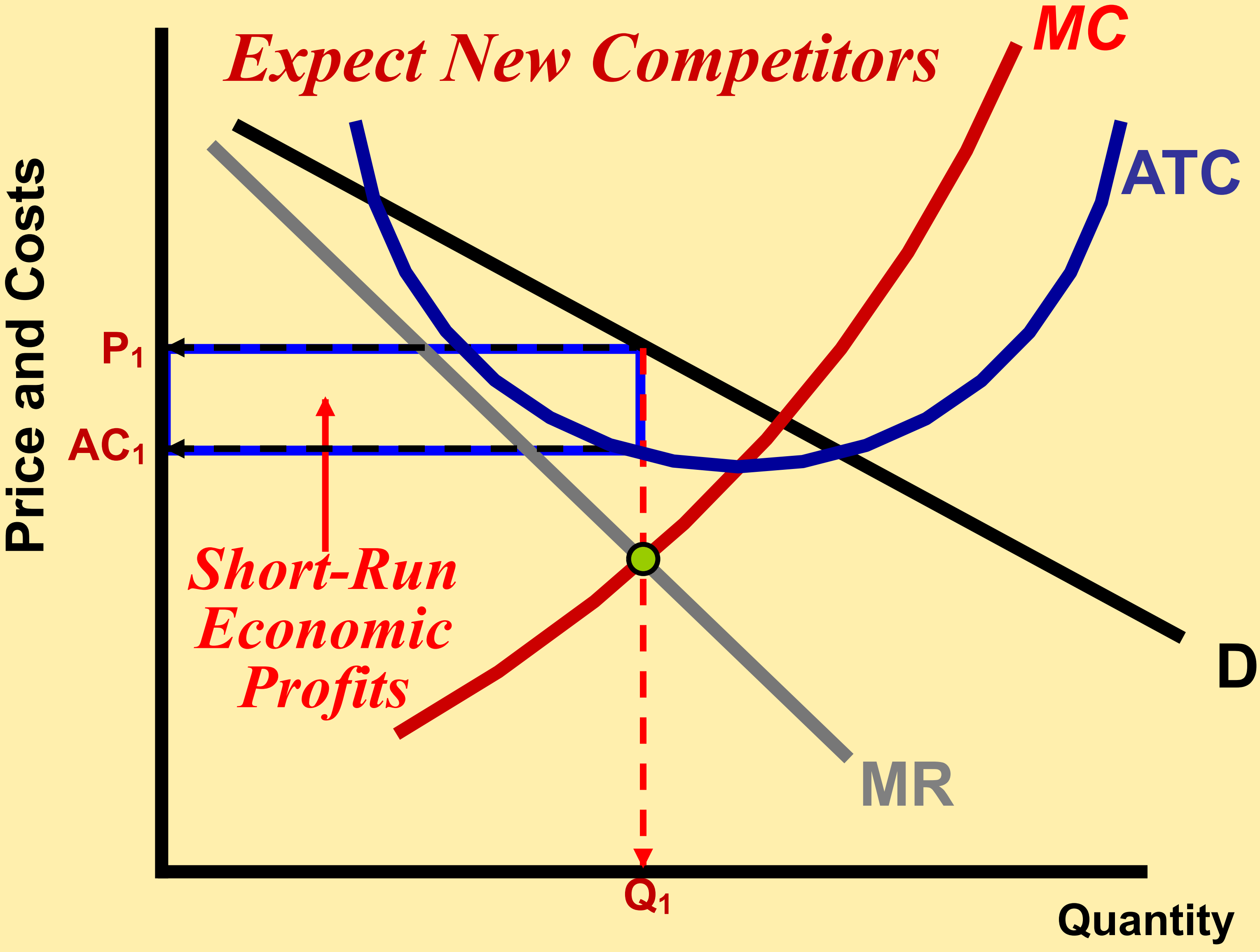
Deadweight Loss

(c)MR=MC

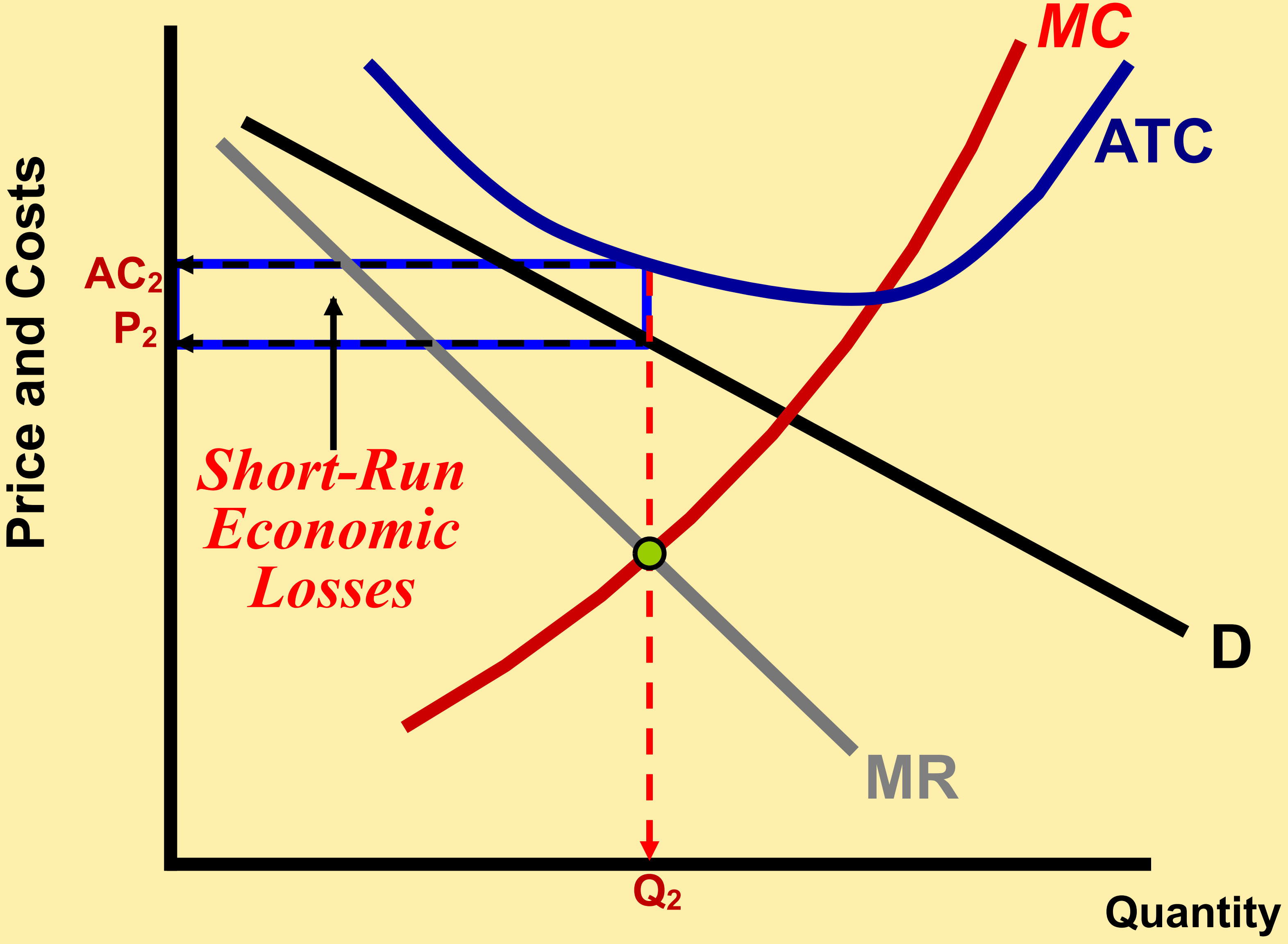
(b)P_m Monopolist price

(a)P=MC Purely Competitive price

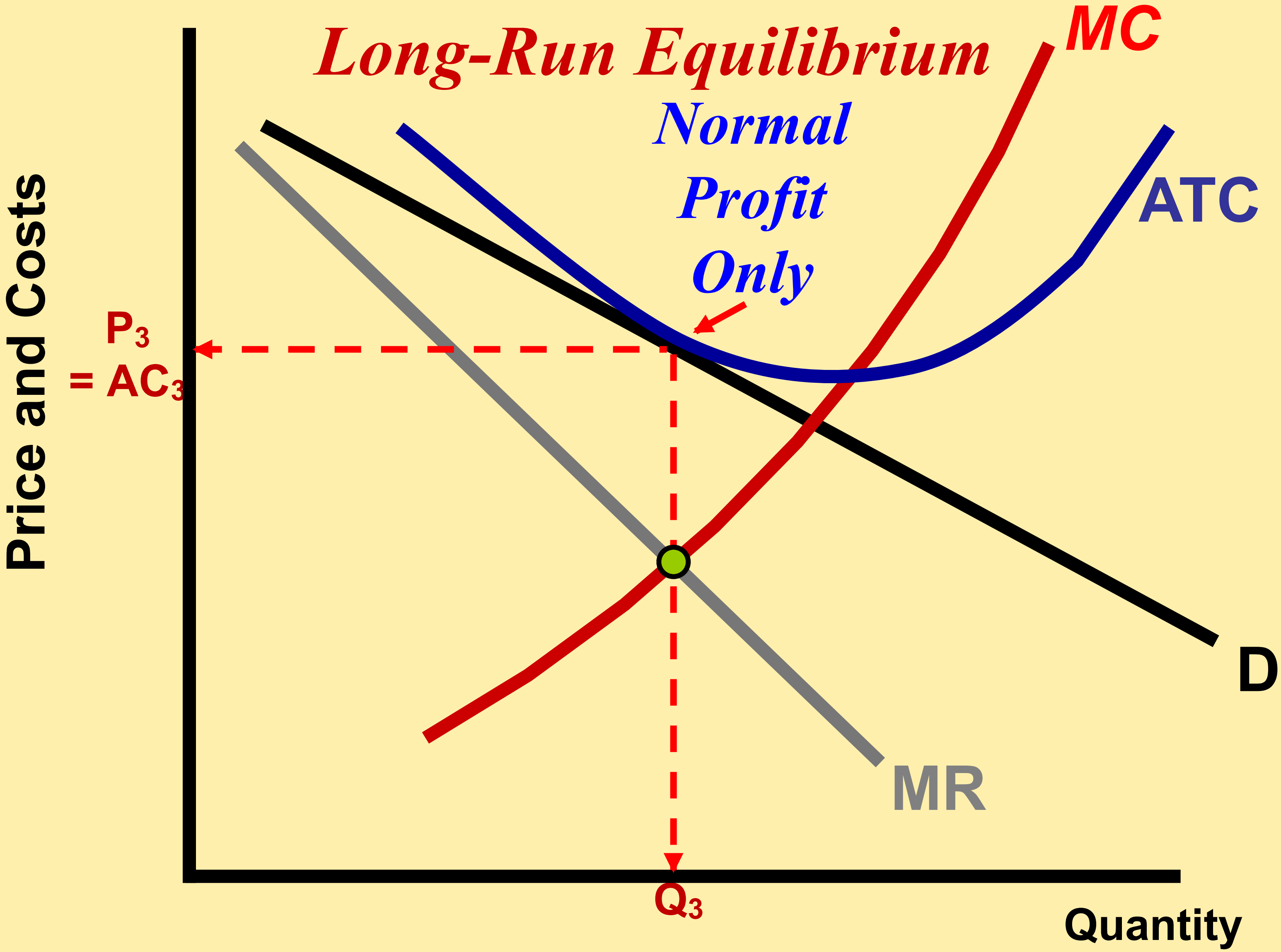
PRICE AND OUTPUT IN MONOPOLISTIC COMPETITION



PRICE AND OUTPUT IN MONOPOLISTIC COMPETITION



PRICE AND OUTPUT IN MONOPOLISTIC COMPETITION



Using Game Theory

- **Game theory can be used to describe a game when:**
  - **There are rules which govern *actions*;**
  - **There are two or more *players*;**
  - **There are choices of action where *strategy* matters;**
  - **The game has one or more *outcomes;***
  - **The outcome depends on the strategies chosen by all players, i.e., there is *strategic interaction*.**

Advertising Game

		COMPANY Y	
		Don't Adv.	Advertise
COMPANY X	Don't Adv.	10,10	2,15
	Advertise	15,2	7,7

- ***Dominant strategies*: Strategy 1 dominates Strategy 2 if every payoff from 2 is dominated by the respective payoff from 1.**

Nash equilibrium: **a set of strategies, one for each player, such that no player has an incentive (in terms of improving his own payoff) to deviate from his strategy, i.e., each player can do no better given what the opposing player(s) does.**

MRP = MP x P

Marginal Revenue Product equals the Marginal Product times the Price.

√ **The MRP curve is the resource demand curve.**

√ **Location of curve depends on the productivity and the price of the product.**

Optimum Combination Of Resources

Least-Cost Combination of Resources

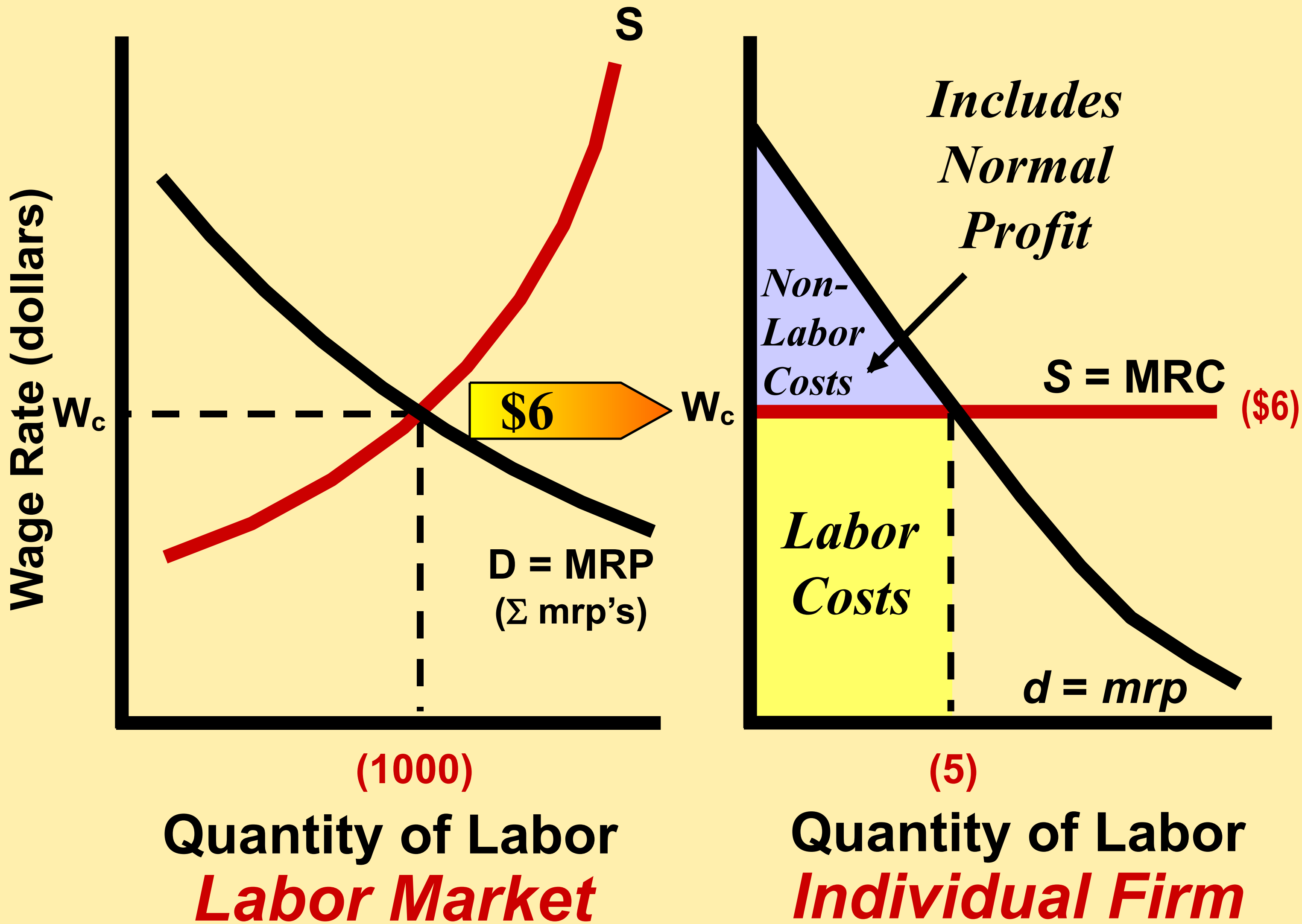
$$\frac{\text{MP of Labor}}{\text{Price of Labor}} = \frac{\text{MP of Capital}}{\text{Price of Capital}}$$

$$\frac{MP_L}{P_L} = \frac{MP_C}{P_C}$$

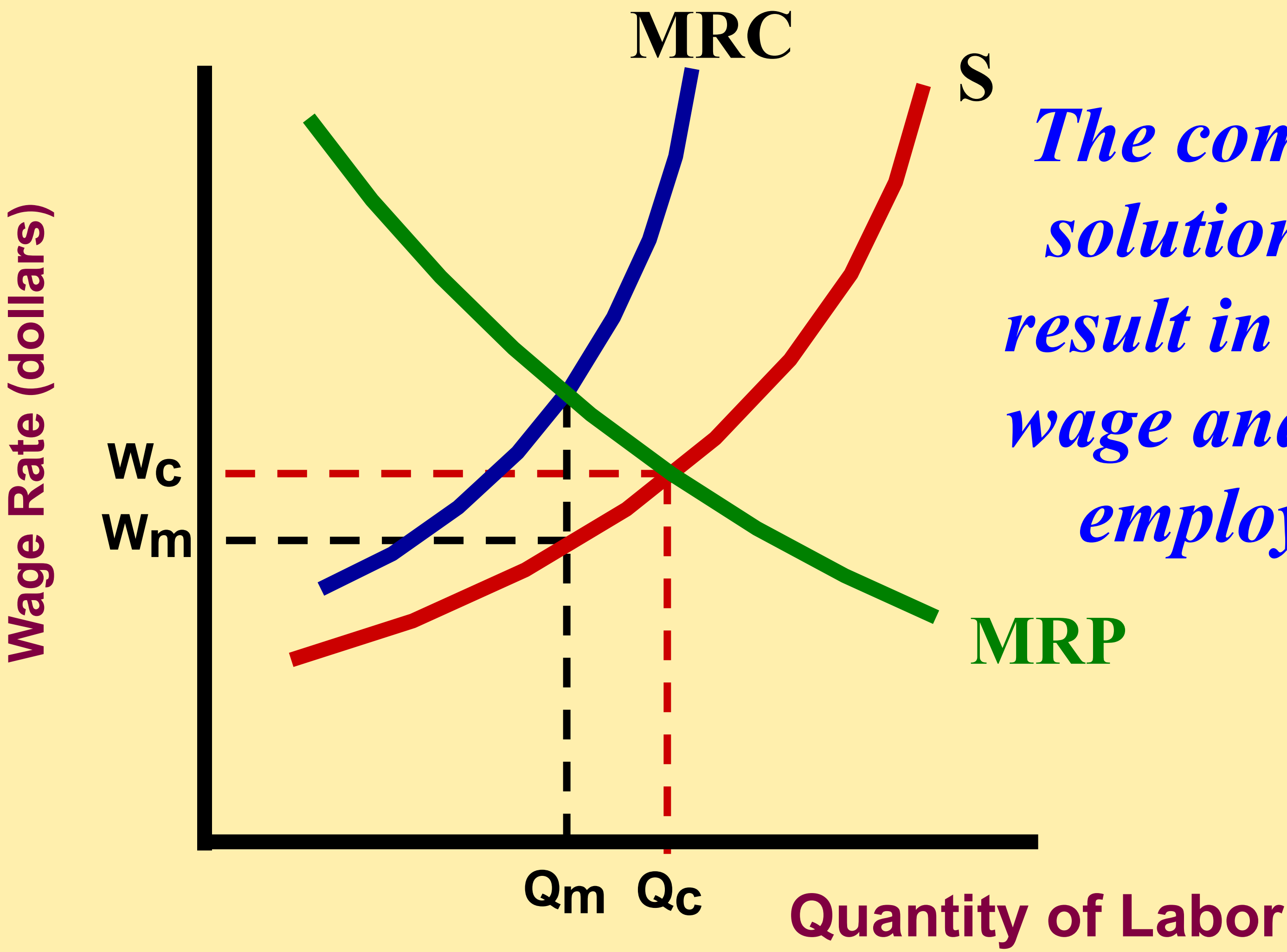
Profit-Maximizing Combination

$$\frac{MRP_L}{P_L} \qquad \frac{MRP_C}{P_C} \qquad 1$$

Purely Competitive Labor Market Equilibrium

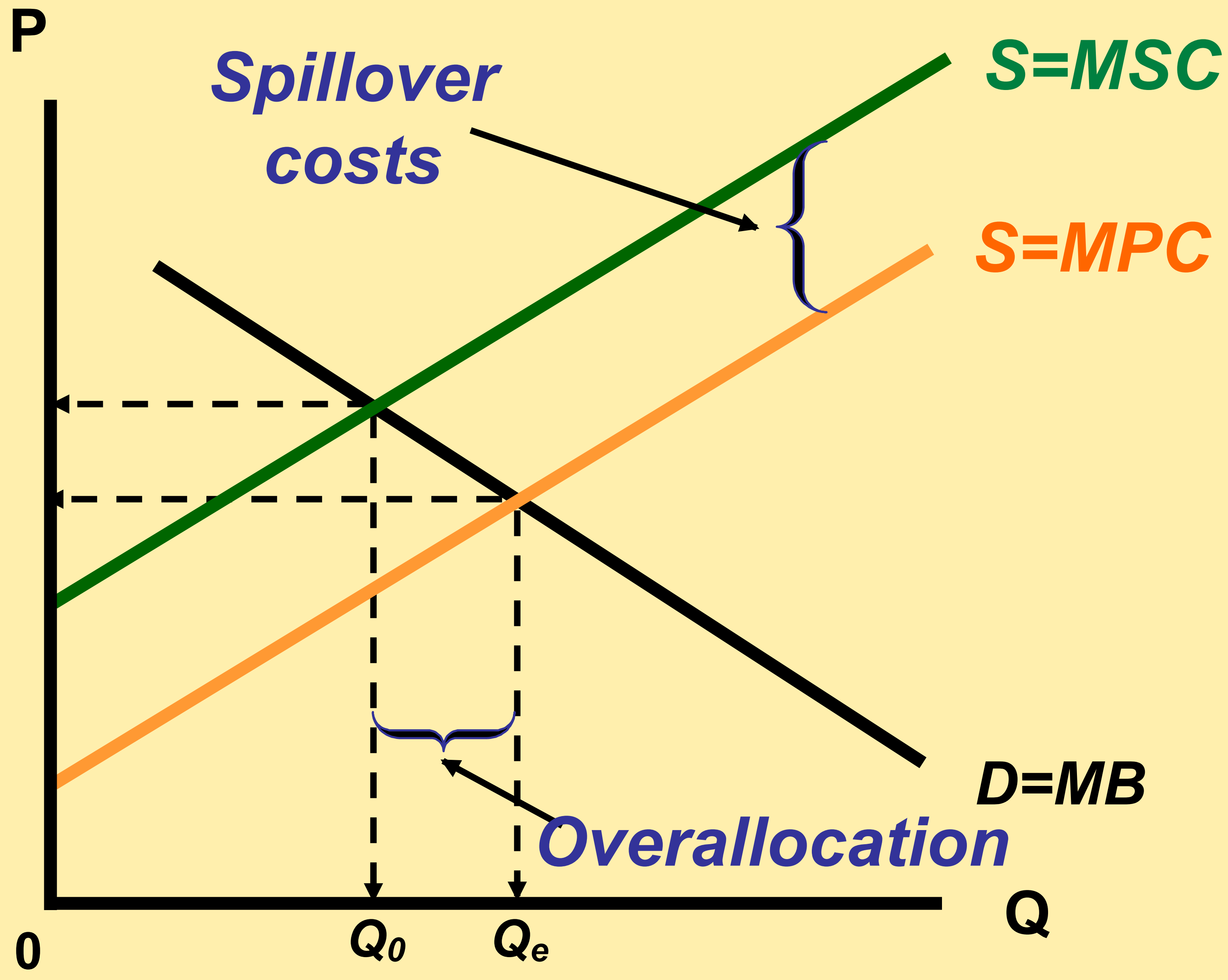


Monopsonistic Labor Market

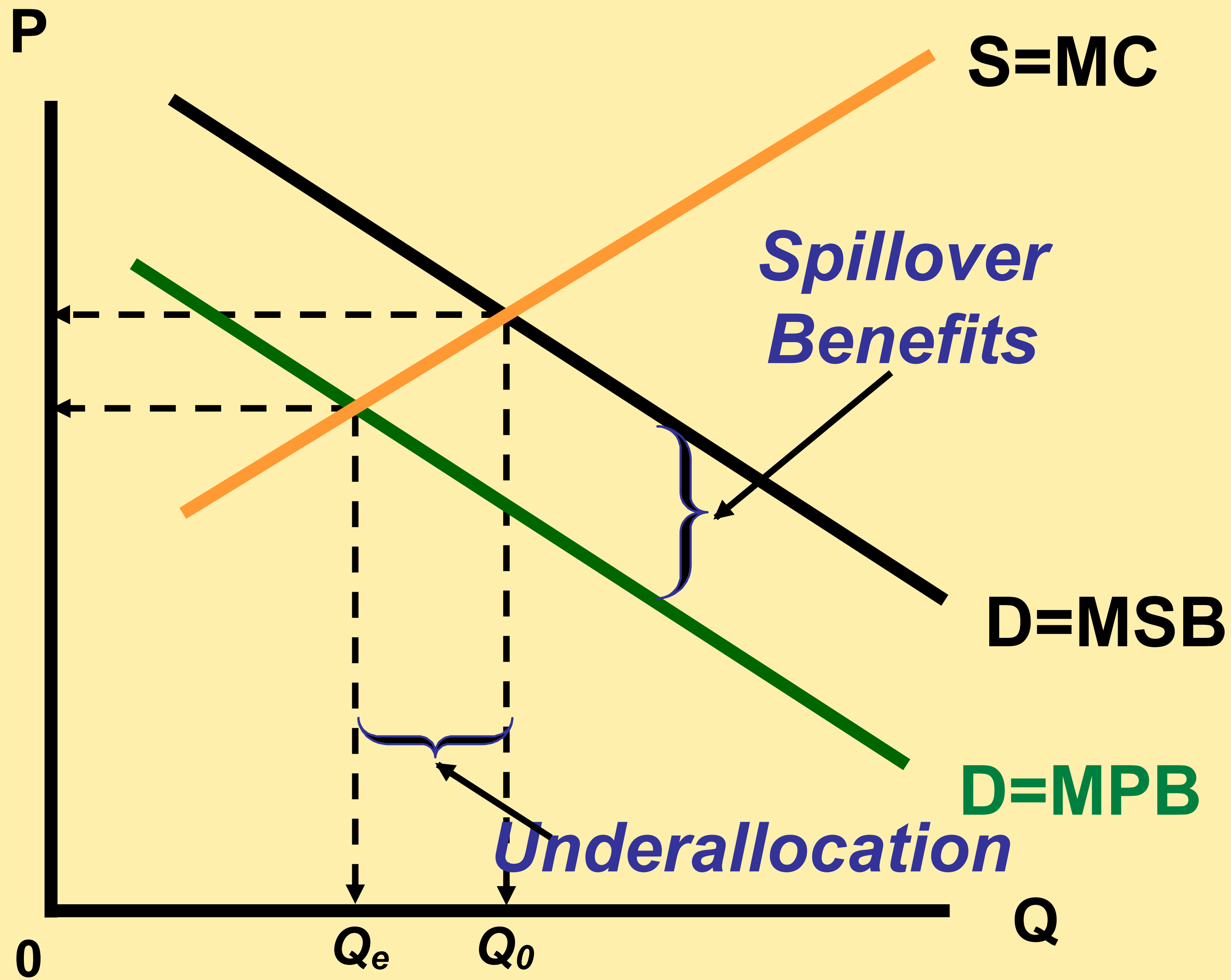


The competitive solution would result in a higher wage and greater employment.

Spillover Costs And Benefits



Spillover Costs And Benefits



Two Goals for Tax Systems

4Tax equity: The fairness of a tax system.

4Tax efficiency: How a tax system maintains the incentives to be productive.

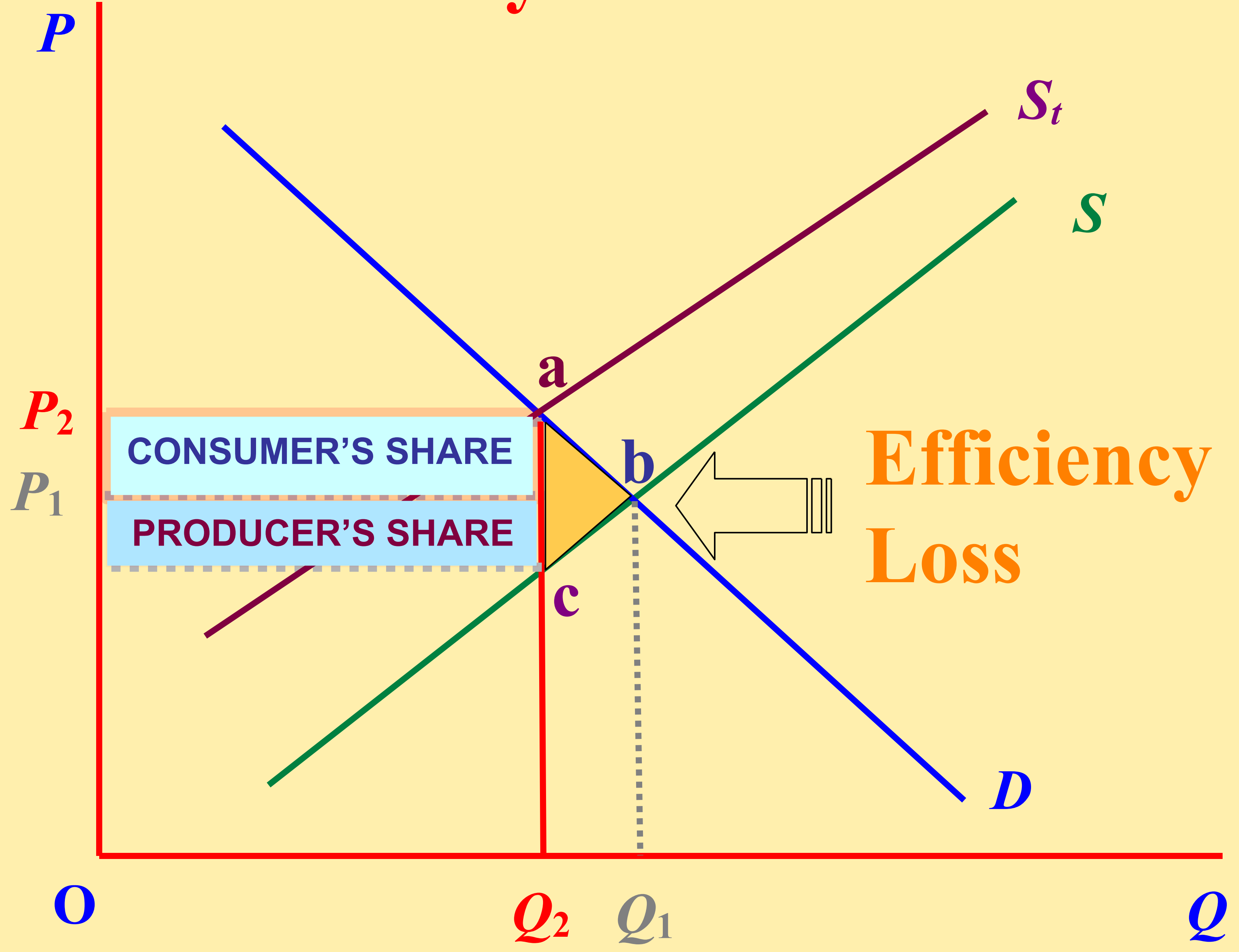
Two Principles of Tax Equity

- **Benefits received principle:** ***states that a fair tax is one that taxes people in proportion to the benefits they receive when government spends those tax revenues.***
- **Ability-to-pay principle:** ***states that those who can afford to pay more taxes than others should be required to do so.***

Three Tax Structures

- ***Progressive tax:* collects a higher percentage of high incomes than of low incomes.**
- ***Regressive tax:* collects a higher percentage of low incomes than of high incomes.**
- ***Proportional tax:* collects the same percentage of income, no matter what the income.**

Efficiency Loss of a tax



The Lorenz Curve