

ECON 1000 Lecture 4

Chapter 7 - consumers produces and the efficiency of market

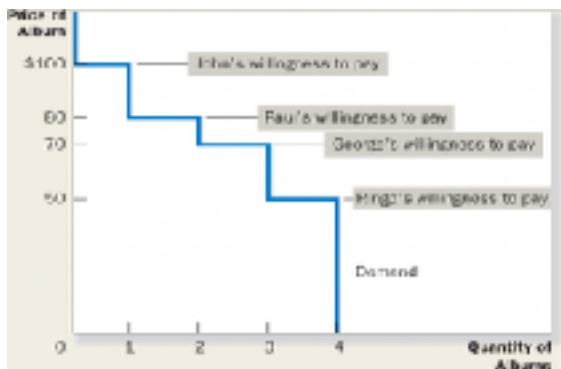
Willingness to pay (WTP) measures how much the buyer values the good

Consumer surplus (CS) = WTP - the actual amount the buyer pays for it

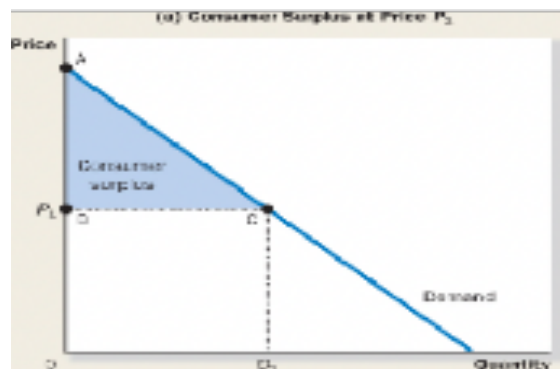
Example:

	WTP	PRICE	CS
A	\$500	\$100	\$400
B	\$300	\$100	\$200
C	\$100	\$100	\$0
D	\$90	\$100	— (won't buy)

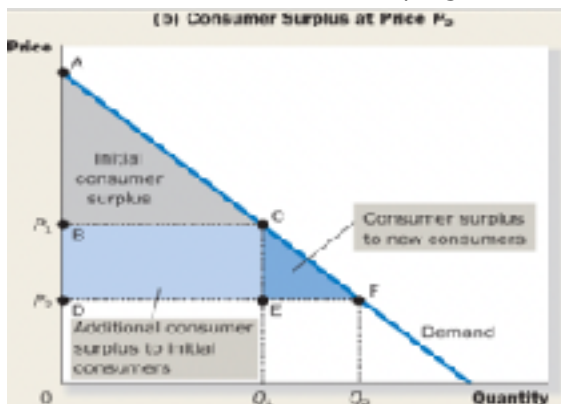
Demand Curve - with WTP and Price



Consumer Surplus = 1/2(l*h)



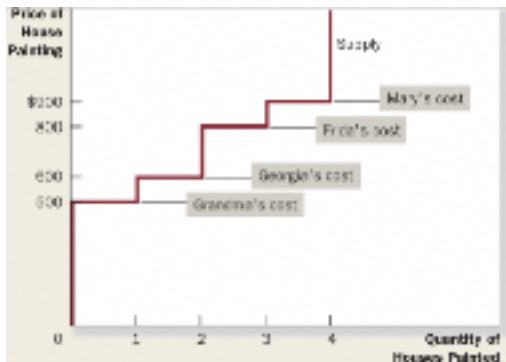
Lower Price — higher CS (negative relationship)



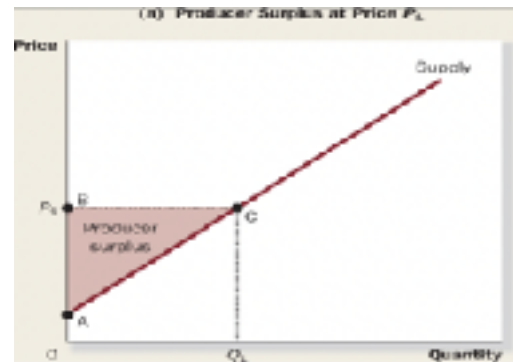
Producer Surplus (PS)

- **willingness to sell** - the value of everything a seller must give up to produce a good (cost)
- **Producer surplus (PS)** = the amount a seller is paid for a good or service - the cost
 - The area below the price and above the supply curve

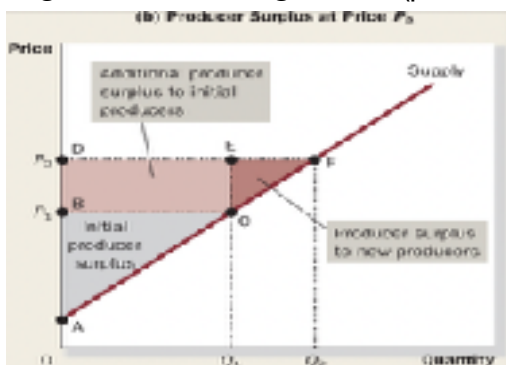
Supply Curve - With cost and Price



Producer Surplus



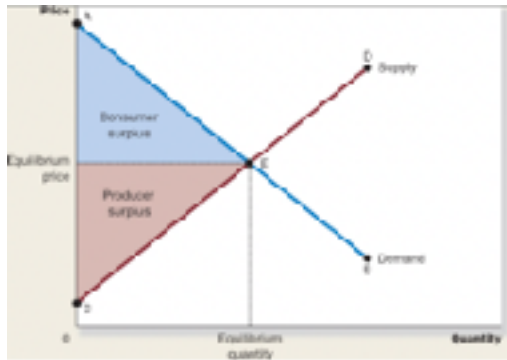
Higher Price — higher PS (positive relationship)



Market Efficiency

- **Efficiency** - the property of a resource allocation to maximize the total surplus (or economic well-being) received by all members of society
- **Equity** - the fairness of the distribution of well-being among the members of society

Market Equilibrium - when demand curve intercepts with supply curve



Total surplus - formula

- $TS = CS + PS$ = area between the supply and demand curves up to the point of Eq (equilibrium)
- CS = Value to buyers - Amount paid by buyers
- PS = Amount received by sellers - Cost to sellers
- Total Surplus = Value to buyers - Amount paid by buyers + amount received by sellers - Cost to sellers
- Total Surplus = Value to buyers - Cost to sellers

Insights about market outcome

- free markets allocate:
 - The supply of goods to the buyers who value them most highly
 - Allocated the quantity of goods to the sellers who can produce them at the lowest cost
 - Produce the quantity of goods that maximizes the sum of consumer and producer surplus

Market failure

- our analysis based on perfect competition
- Decisions of buyers and sellers can affect people outside the market - pollutions by pesticides (externality)

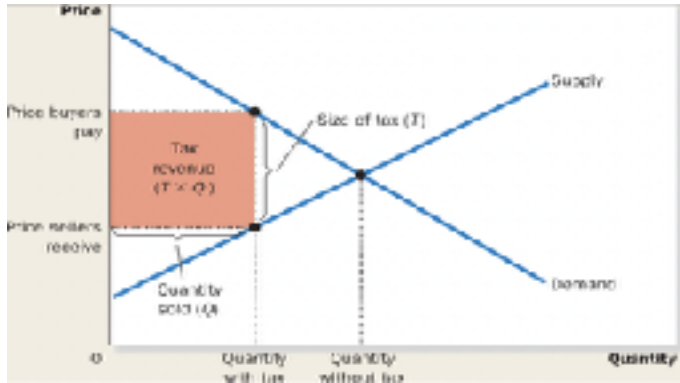
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- When market fails, public policy can remedy the problem and increase economic efficiency

QUESTION 9

Chapter 8 - Application : the cost of taxation (Government)

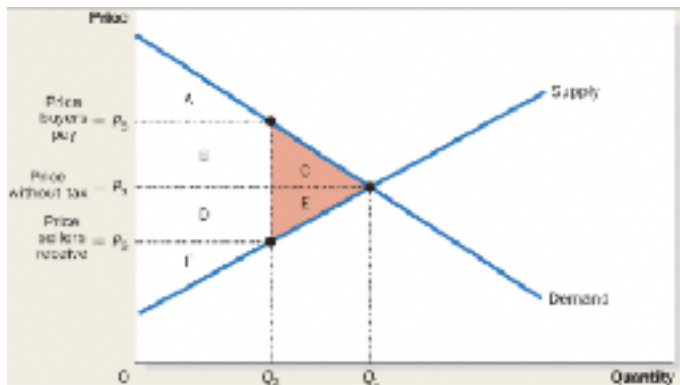
Tax Revenue



Measure of welfare

- Consumer surplus
- Produce surplus
- Total surplus

EXAMPLE



Welfare without a tax

consumer surplus = ABC

Producer surplus = DEF

Tax revenue = 0

Total surplus = ABCDEF

Welfare with a tax

Consumer surplus = A

Producer surplus = F

Tax revenue = BD

Total surplus = ABDF

- The area C+E shows the fall in total surplus and its the deadweight loss of the tax

Application of DWL

- consider Joe cleans Jane's house each week for \$100
- The opportunity cost for Joe's time is \$80
- The value of a clean house to Jane is \$120

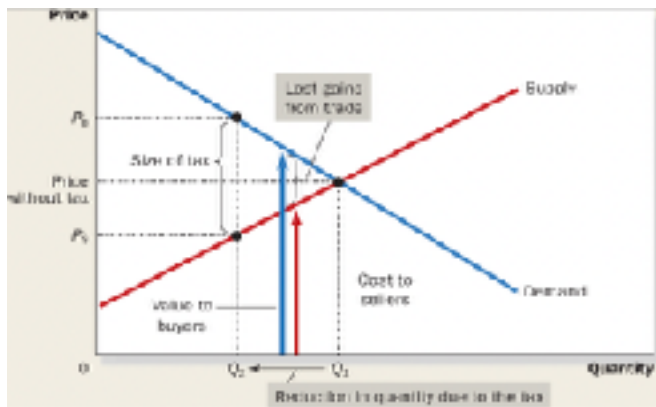
Joe has PS = 20

Jane has CS = 20

TS = 40

- the government levied a \$50 tax on provider
 - Jane is willing to pay up to her WTP=120
 - Joe wants to be paid based on his cost = 80
 - Deal or not deal?

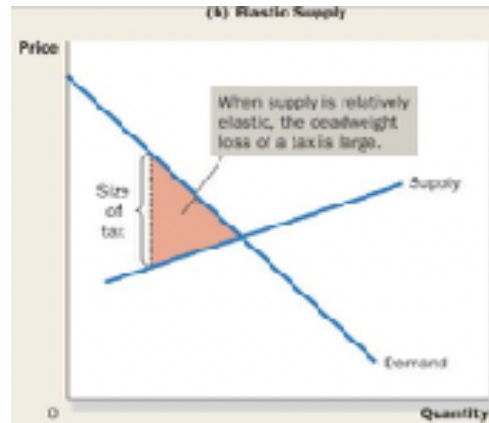
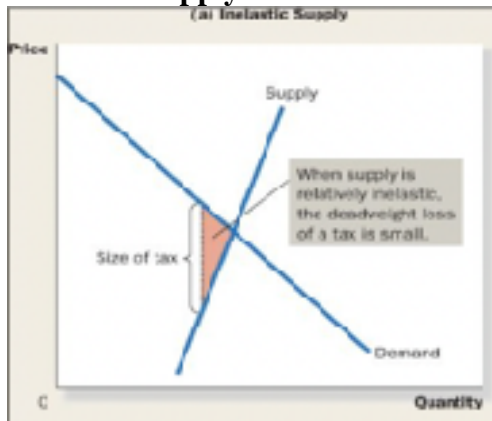
The DWL



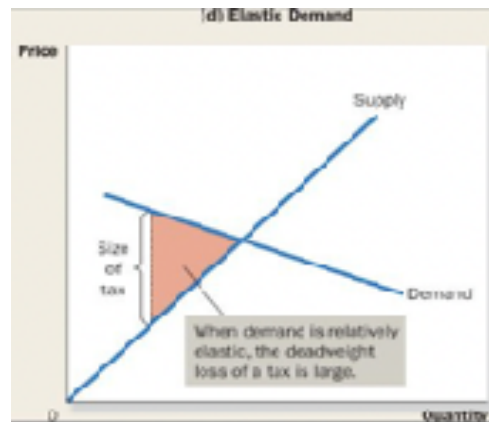
The determinant of DWL

- the size of DWL depends on the elasticity of supply and demand curves
- The greater the elasticity of supply and demand curve, the greater the DWL
 - **Inelastic supply** curve, DWL is **smaller**
 - **Elastic supply** curve, DWL is **larger**
 - **Inelastic demand** curve, DWL is **smaller**
 - **Elastic demand** curve, DWL is **larger**

DWL and supply curve



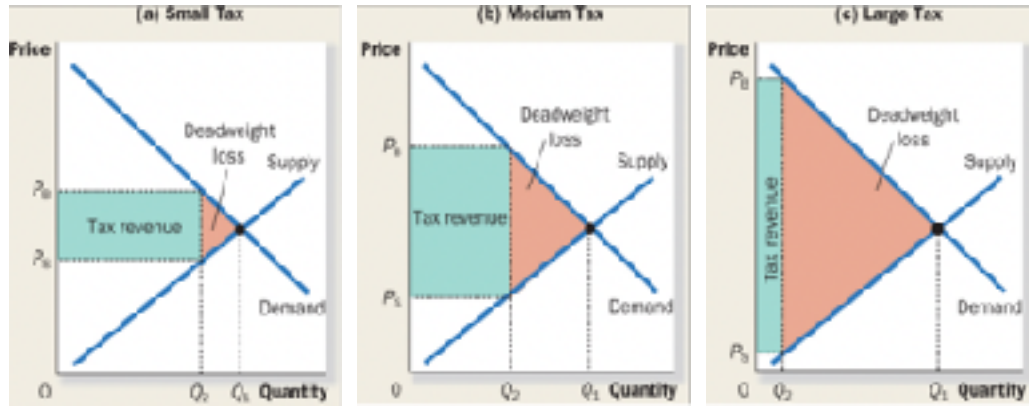
DWL and demand curve



Policy debate

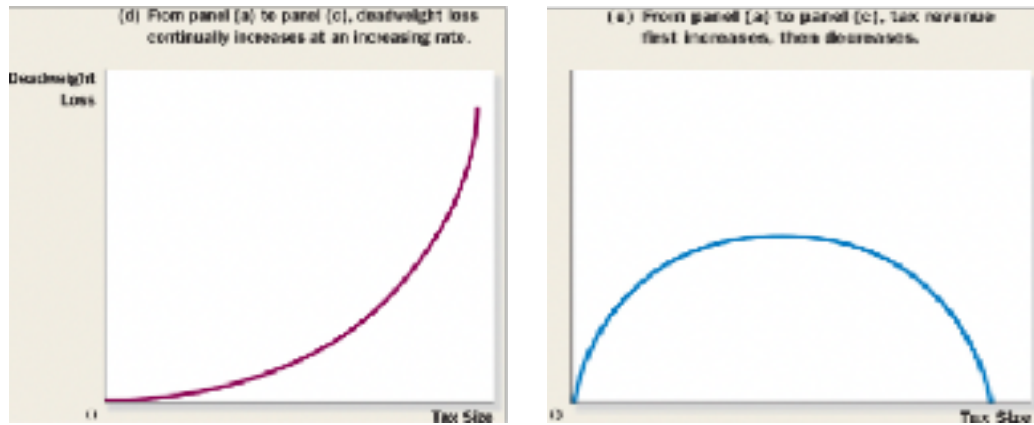
- the impact of labor tax on DWL
- Disagreement among economists
 - Different views about elasticity of labour supply

DWL and Tax Revenue



DWL and Tax Revenue

- summary of the three graphs
- check out the X and Y-axis



QUESTION 10