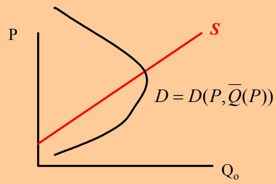
The Market for Lemons



The Market for Lemons

- Every year n cars are available for sale, of which p turn out to be "lemons"

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- Sellers are willing to sell cars at S_G and S_L

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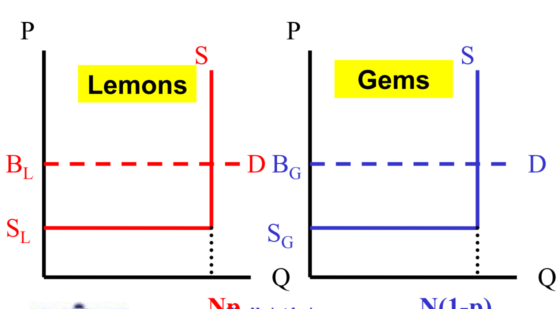
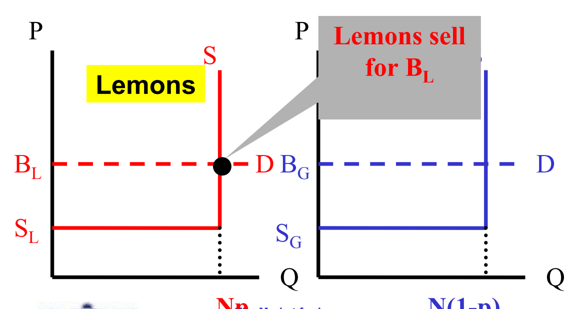
$S_L < S_G$ $\quad$ $B_L < B_G$

$B_G > S_G$ $\quad$ $B_L > S_L$

The Market for Lemons



Buyers can tell the difference



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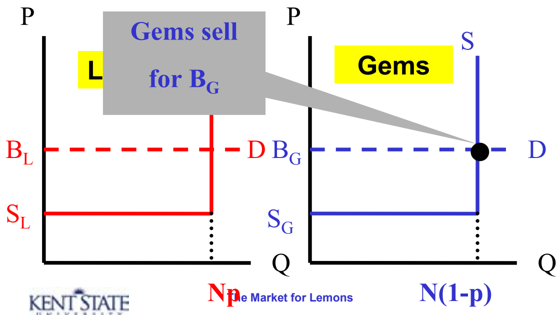

If Buyers cannot tell the difference

$$P = pB_L + (1\text{-}p)B_G$$

A numerical example

Variable	Value
S_G	\$12,000
S_L	\$6,000
B_G	\$14,000
B_L	\$8,000
P	30%

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- If buyers can distinguish

$P_G = \$14,000$

$P_L = \$8,000$

A numerical example

Variable	Value
S_G	\$12,000
S_L	\$6,000
B_G	**\$14,000**
B_L	**\$8,000**
P	**30%**

- If buyers cannot distinguish

$P = pB_L + (1\text{-}p)B_G$

$P = (0.3)(\$8,000) + (0.7)(\$14,000) = \$12,200$

Different Numbers

Variable	Value
S_G	\$12,000
S_L	\$6,000
B_G	**\$14,000**
B_L	**\$8,000**
P	**40%**

- If buyers cannot distinguish

$P = pB_L + (1\text{-}p)B_G$

$P = (0.4)(\$8,000) + (0.6)(\$14,000) = \$11,600$

Different Numbers

Variable	Value
S_G	**$12,000**
S_L	$6,000
B_G	**$14,000**
B_L	**$8,000**
P	**40%**

- If buyers cannot distinguish

$$P = pB_L + (1-p)B_G$$

$$P = (0.4)(\$8{,}000) + (0.6)(\$14{,}000) = \$11{,}600$$

Tilt

The Tilting Point

$$P = pB_L + (1-p)B_G$$

Variable	Value
S_G	$12,000
S_L	$6,000
B_G	**$14,000**
B_L	**$8,000**
P	

$$\$12{,}000 = p(\$8{,}000) + (1-p)(\$14{,}000)$$

The Tilting Point

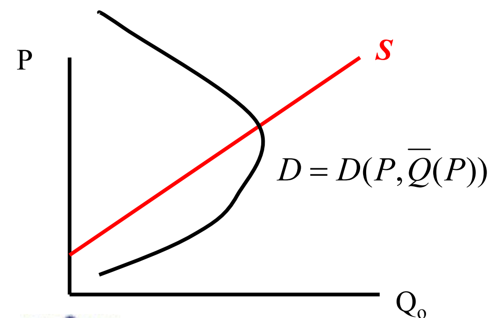
$$p = \frac{1}{3}$$

Va	
B_G	**$14,000**
B_L	**$8,000**
P	

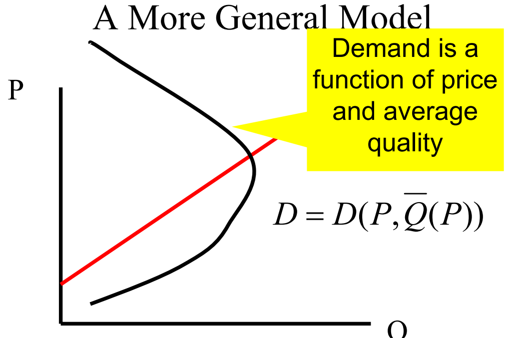
$$P = pB_L + (1-p)B_G$$

$$\$12{,}000 = p(\$8{,}000) + (1-p)(\$14{,}000)$$

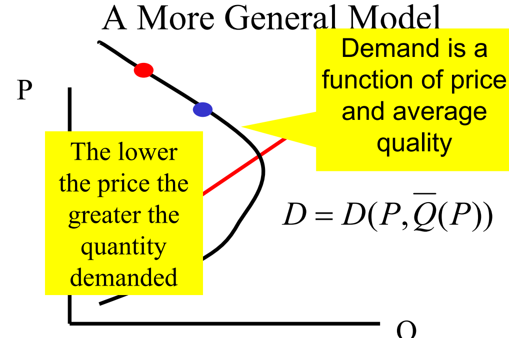
A More General Model



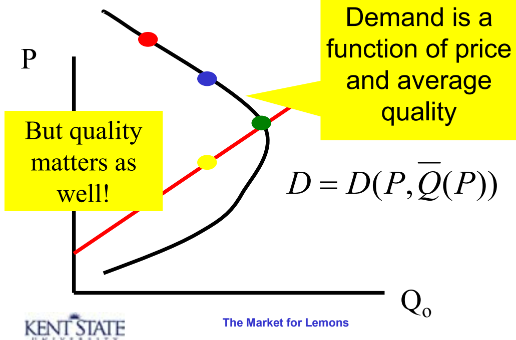
A More General Model



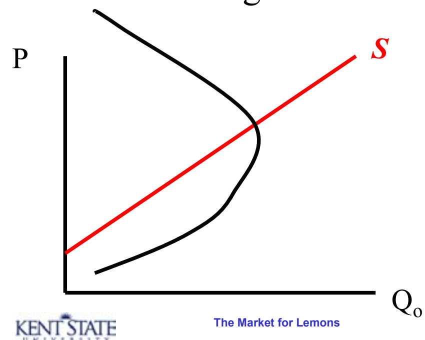
A More General Model



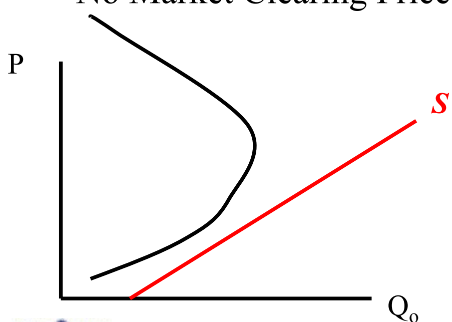
A More General Model



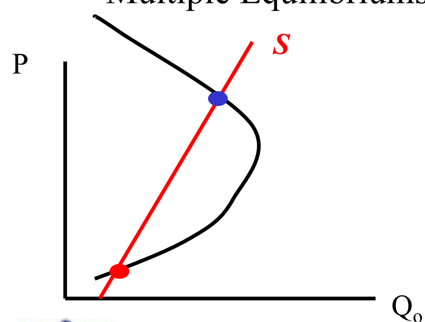
Tweaking the Model



No Market Clearing Price



Multiple Equilibriums



End