

Course Title: International Economics

Course Code: ECON3019

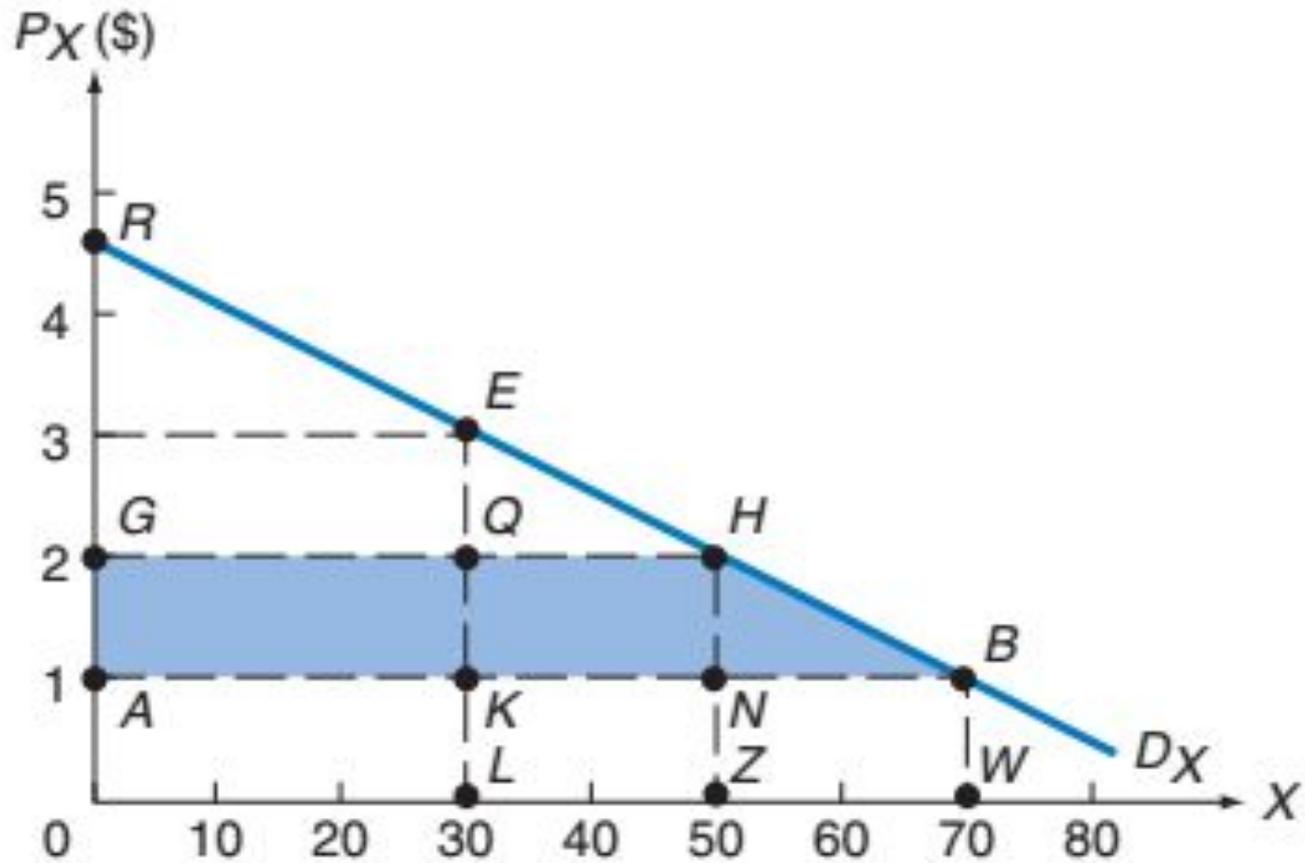
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Topic: Effect of Tariff on Producer's and
Consumer's Surplus

Effect of a Tariff on Consumer and Producer Surplus

- The increase in the price of imported commodity due to the imposition of tariff leads to a *reduction in consumer surplus and an increase in producer surplus*.
- The consumer surplus is the difference between what consumers would be willing to pay for each unit of the commodity and what they actually pay.

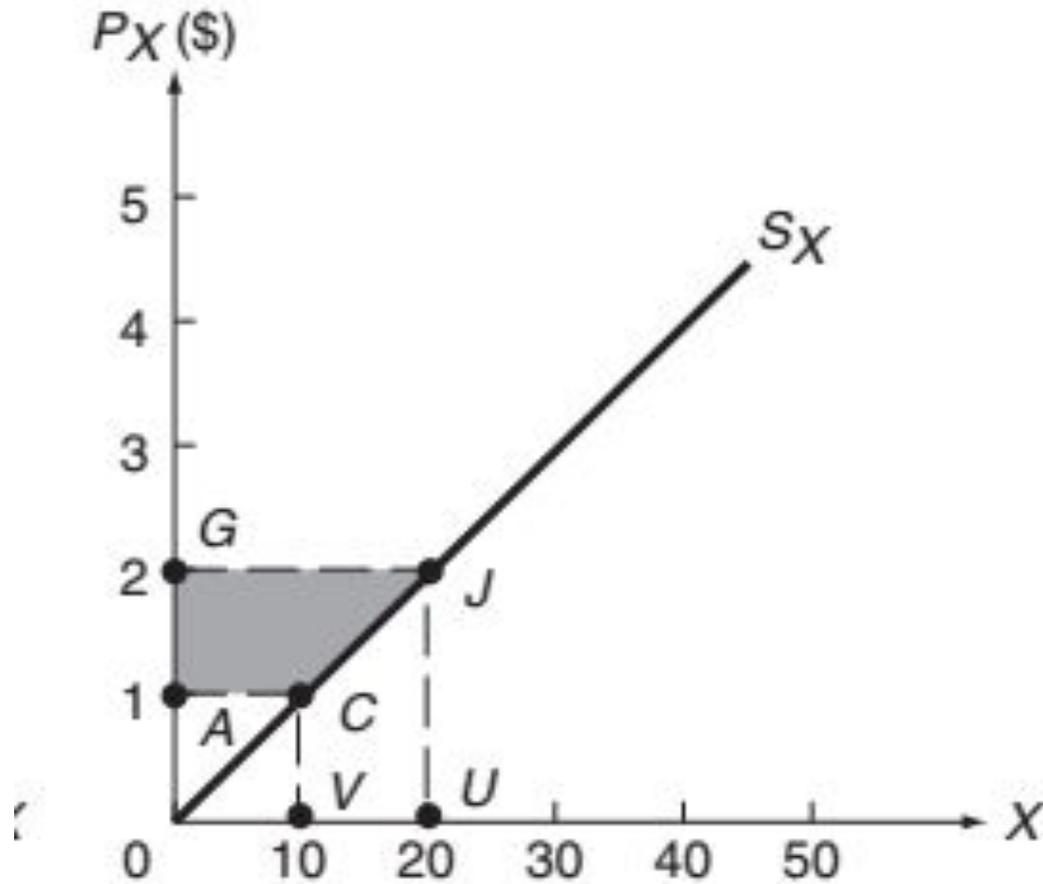
Effect on Consumer Surplus



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- When Nation 2 imposes a 100 percent import tariff, the price of commodity X rises from $P_x = \$1$ to $P_x = \$2$ and purchases of commodity X fall from $70X$ to $50X$.
- The diagram in the previous slide shows that a tariff that increases the price of commodity X from $P_x = \$1$ to $P_x = \$2$ results in a reduction in consumer surplus from ARB to GRH or by shaded area AGHB.

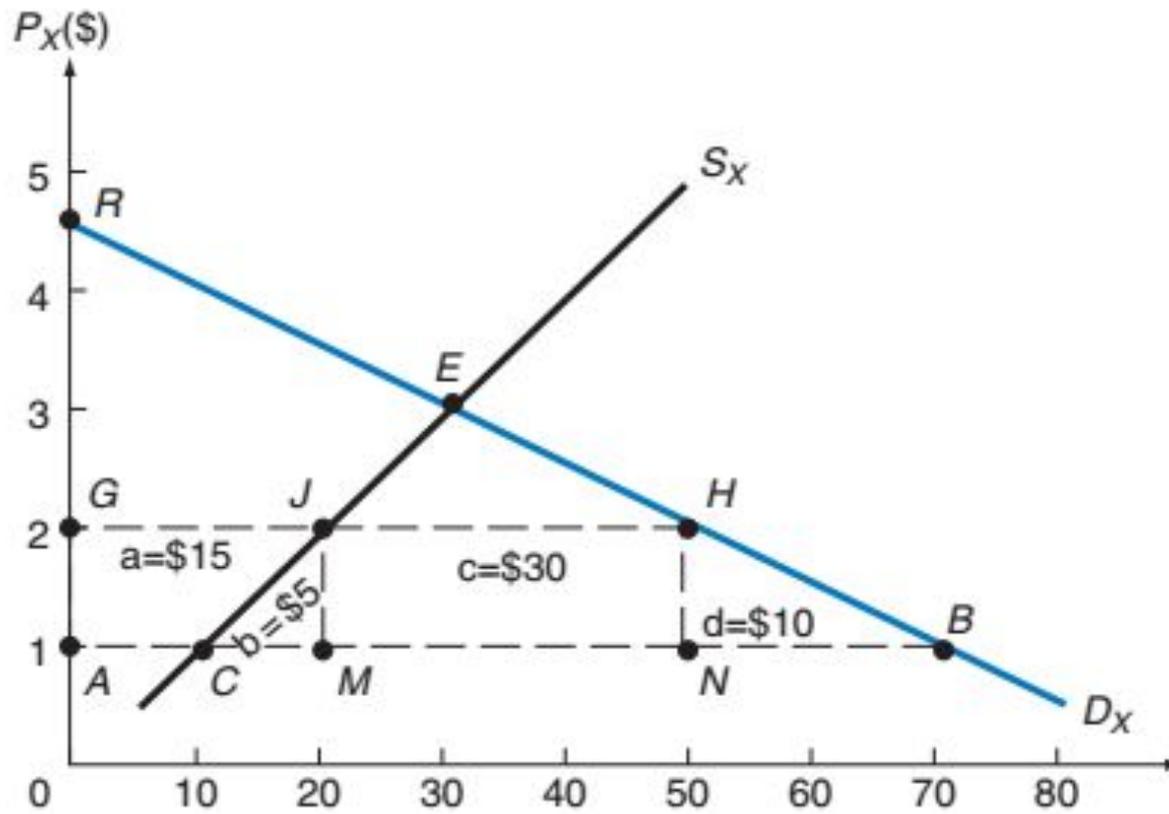
Effect on Producer Surplus



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- In the diagram given in the previous slide the increase in rent or producer surplus that results from the tariff is given by shaded area $AGJC = \$15$.
- At free trade $P_x = \$1$, domestic producers produce $10X$ and receive $OACV = \$10$ in revenues.
- With the tariff price increases to $P_x = \$2$, they produce $20X$ and receive $OGJU = \$40$.
- Here the shaded area $AGJC = \$15$ represents the increase in rent or producer surplus.

Costs and Benefits of a Tariff



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- The figure in the previous slide shows that with a 100 percent import tariff on commodity X, P_x rises from \$1 to \$2 in Nation 2.
- This reduces the consumer surplus by $AGHB = a + b + c + d$.
- Of this, $MJHN = c$ is collected by the government as tariff revenue, $AGJC = a$ is redistributed to domestic producers of commodity X in the form of increased rent or producer surplus, while the remaining \$15 (the sum of the areas of triangles $CJM = b$ and $BHN = d$) represents the protection cost, or deadweight loss, to the economy.

- **Reference:**

Salvatore D (1998), International Economics,
Prentice Hall.