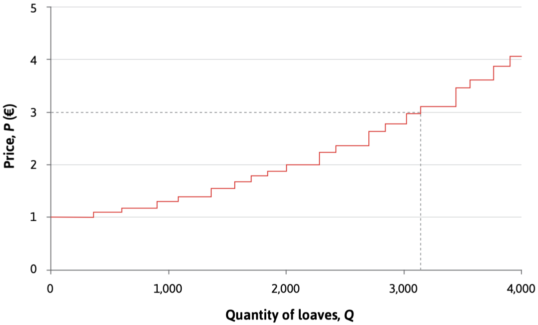
ECO111 : Lecture 28

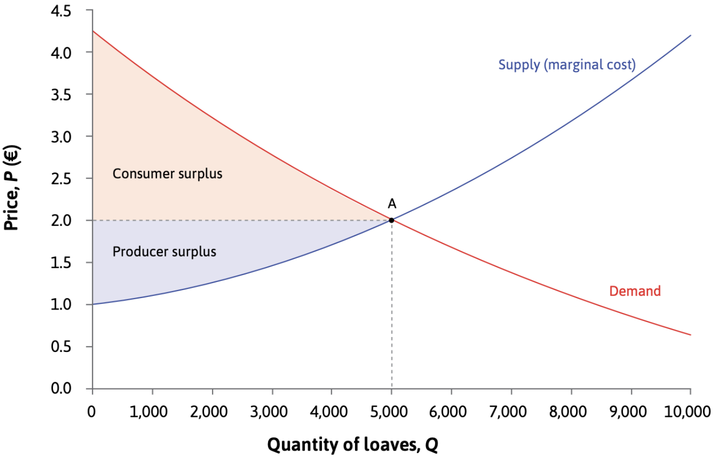
22 October 2024

Market Supply Curve

- When $P > MC$ produce the profit maximizing quantity.
- When $P < MC$ produce nothing.
- At each given price, add up the individual supply by each firm in the market to arrive at the market supply.
- Approximate market supply with a smooth curve.
- Market supply curve is marginal cost curve for all the quantity produced.



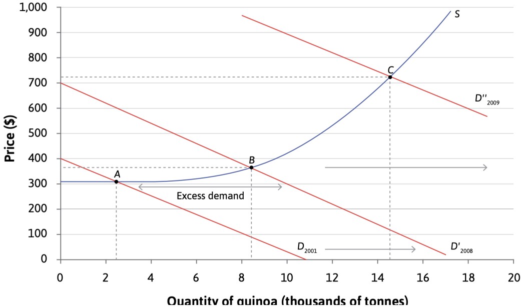
Economic Surplus



Total Surplus & Pareto Efficiency

- The total surplus is maximized at the equilibrium quantity and price in perfect competition.
- The surplus would be lower if less than Q*(equilibrium quantity is produced.
- If more than Q* is produced the additional units produced have negative surplus thus reducing the total surplus.
- All potential gains from trade are exploited.
- The allocation here is Pareto efficient. It follows from three assumption we have made regarding perfect competition.
  1. Price taking: competition prevents an individual firm from raising their price unlike in monopolistic competition.
  2. Complete contract and information.
  3. No effect on others or no externalities.

Changes in Supply & Demand: The case of quinoa production & consumption



- A change in consumers' preferences in the developed countries to consume more quinoa (produced in South America) caused the demand curve for quinoa to shift out.
- The increase in supply causes the producers' to function at the steeper portion of the supply curve as marginal cost increases.

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- The demand curve shifts out from D_{2001} to D'_{2008}.
- Production and consumption is no more at the earlier equilibrium point A.
- There is an adjustment process that shall happen until a new equilibrium is reached.
- A *'change in demand'* is a movement along the supply curve, while a *change in the quantity demanded* is a movement along the demand curve.
- Here an increase in demand due to changed consumer preferences shift the demand curve out, increasing the equilibrium quantity.
- The change in price from the equilibrium level depends on the slope of the supply curve or the price elasticity of supply.
- **Price elasticity of supply,** $\epsilon_S = \frac{\partial Q/Q}{\partial P/P}$.
- The steeper the supply curve or more price inelastic the supply curve, larger is the increase in equilibrium price and smaller increase in equilibrium quantity when there is an increase in demand.
- A shift in the demand or supply curve, that occurs due to exogenous factors manifest as shocks to the existing system of production and consumption.

Changes in Supply & Demand: Oil Market

- Prices reflect scarcity of goods that are values, and for which there are opportunity costs of acquiring more.
- When a good becomes scarce, the supply will decrease and price will increase.

Short run supply & demand

- In the short run demand for oil is inelastic since there is limited possibilities for substitution and oil is a raw material in most production processes.
- The short run demand curve is steep.
- The market supply curve reflects the low variable cost of extraction of oil once the fixed cost of oil well drilling is borne. It should also reflect the substantial increase in costs as capacity constraint of extraction of oil is hit.
- Thus the short run supply curve initially is low and flat, which becomes steep as constraint of extraction is hit, for a given existing capacity.
- Oil as discussed earlier is sold under an oligopolistic market structure.
- OPEC is a cartel that sets output quotas for its members.
- The world supply curve is the sum of supply by OPEC countries and the non-OPEC countries.

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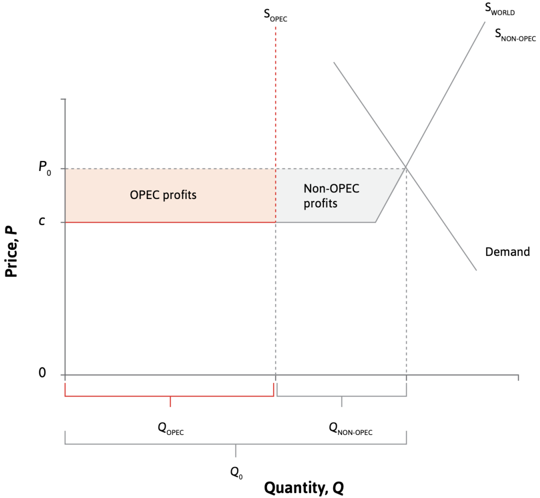

S_{OPEC}
S_{WORLD}
$S_{NON-OPEC}$
P_0
c
OPEC profits
Non-OPEC profits
Demand
Price, P
0
Q_{OPEC}
$Q_{NON-OPEC}$
Q_0
Quantity, Q

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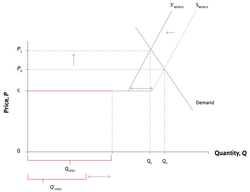
1970s oil price shocks



2000-08 oil price shocks