Monopoly social costs

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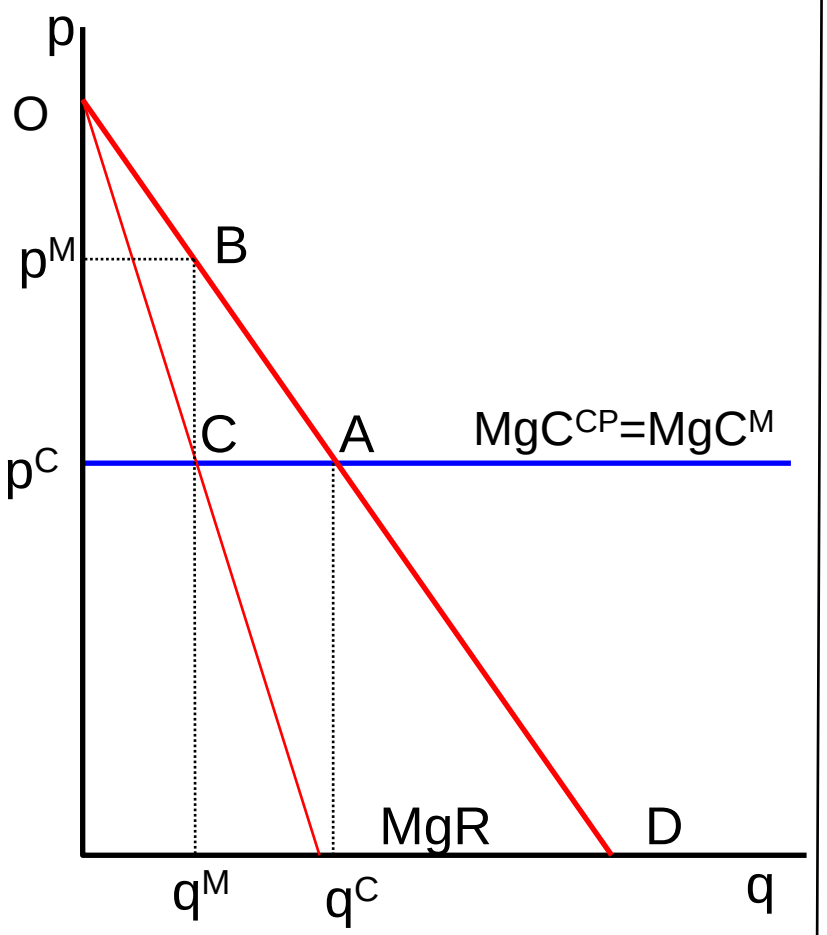
Basic model

- $MgC^{CP}=MgC^{M} \rightarrow C=cq \rightarrow MgC=AvC=c$



$$PC = \begin{cases} CS = OP^C A \\ \Pi = 0 \end{cases} \qquad M = \begin{cases} CS = OP^M B \\ \Pi = P^M P^C CB \end{cases}$$

$$\Delta SW = \begin{cases} \Delta CS = CS^M - CS^{PC} = -\left(P^M P^C CB + BCA\right) \\ \Delta \Pi = \Pi^M - \Pi^{PC} = P^M P^C CB \end{cases}$$

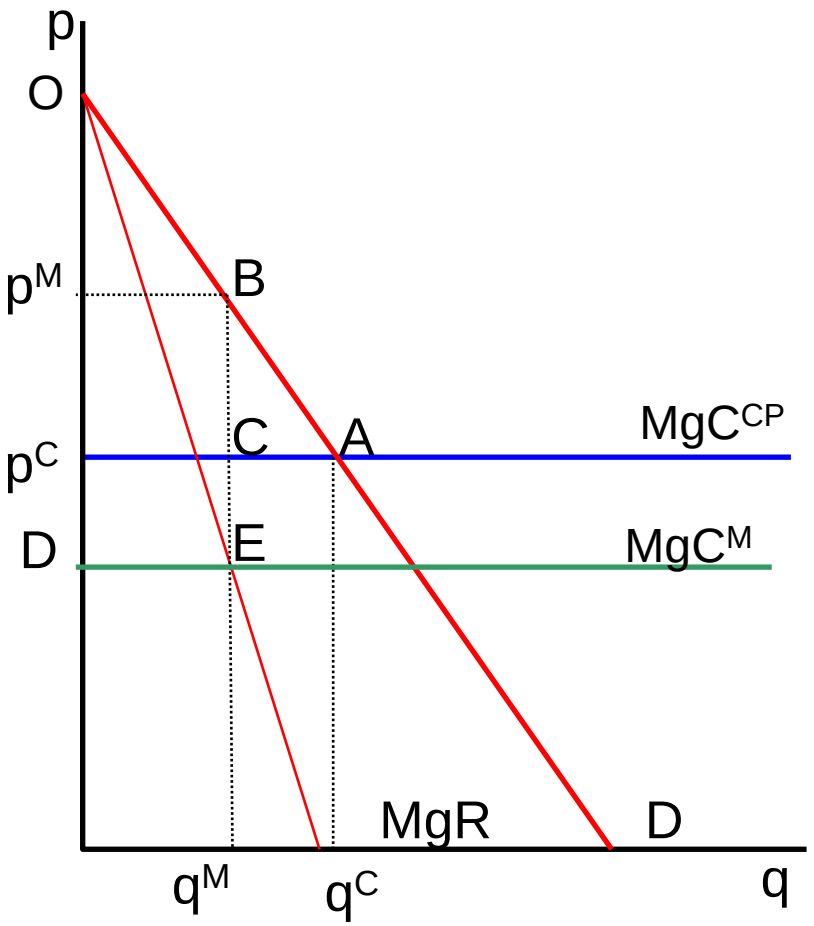
$$\begin{cases} 1. - p^M p^C bc \rightarrow \text{ Transference from CS to } \Pi \\ 2. - \Delta SW = -BCA \rightarrow \text{ Net Loss of SW} \\ \rightarrow \text{HARBERGER'S TRIANGLE} \\ \Delta SW = SW^M - SW^{PC} = -BCA < 0 \end{cases}$$

Williamson's model

- Monopolist's marginal (average) costs are lower than perfect competition firms' marginal (average) costs
- Monopolies are large size firms→ this large size allows them to take profits of economies of scale → lower average costs→ higher efficiency
- $MgC^{M} < MgC^{PC}$

Williamson's model

- $MgC^{PC} > MgC^{M}$



$$PC = \begin{cases} CS = OP^C A \\ \Pi = 0 \end{cases} \qquad M = \begin{cases} CS = OP^M B \\ \Pi = P^M DEB \end{cases}$$

$$\Delta SW = \begin{cases} \Delta CS = CS^M - CS^{PC} = -\left(P^M P^C CB + BCA\right) \\ \Delta \Pi = \Pi^M - \Pi^{CP} = P^M P^C CB + P^C DCE \end{cases}$$

1. $-\left(p^M p^C bc\right) \rightarrow$ Transference from CA to Π
2. $-\left(BCA\right) \rightarrow$ Loss of SW $\rightarrow$

HARBERGER'S TRIANGLE

3. $-\left(P^C DCE\right) \rightarrow$ SW gain $\rightarrow$

due to the increase of efficiency

$$\Delta SW = SW^M - SW^{PC} = P^C DCE - BCA$$

Williamson's model

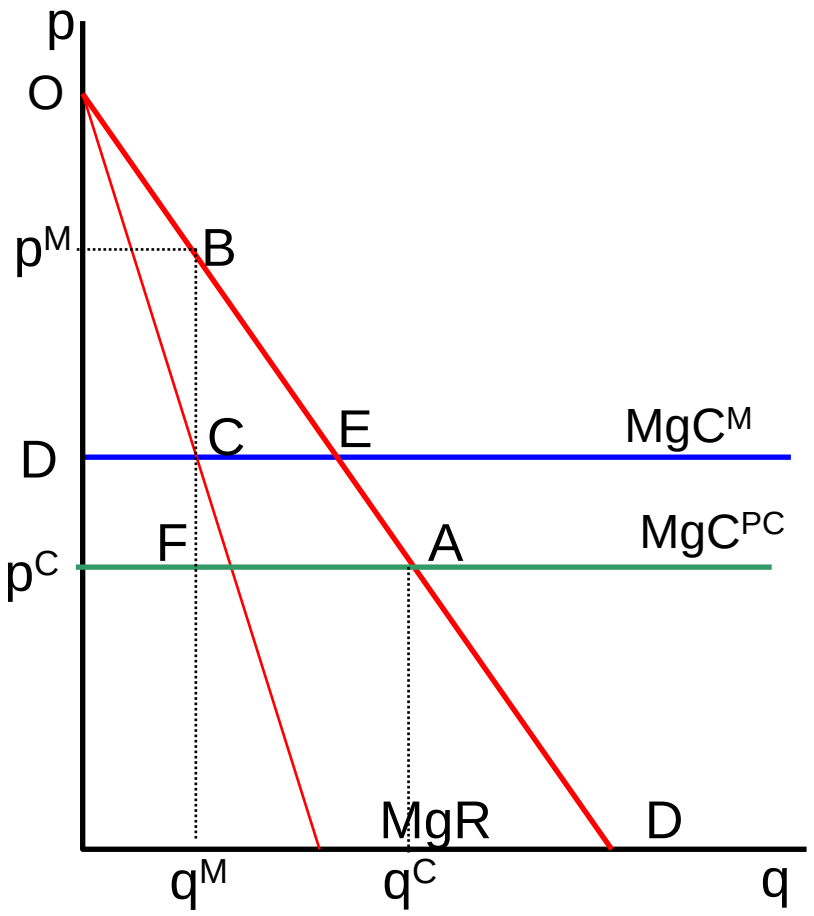
- Whereas in the basic model an industry monopolization necessarily implies a loss of social welfare, in the Williamson model an industry monopolization can produce both an improvement and a loss of social welfare

Liebnstein Model (X-Inefficiency)

- Monopolist's marginal (average) costs are higher than perfect competition firms' marginal (average) costs
- In perfect competition industries, competition *per se* stimulates firms' efficient behaviour
- However, the monopolist does not have to face any competition and so it does not have any incentive to behave efficiently→ possible existence of X-inefficiency→ firms' managers do not have any incentive to behave efficiently
- $MgC^{M} > MgC^{PC}$

Liebnstein Model (X-Inefficiency)

- $MgC^{CP} < MgC^{M}$



$$PC = \begin{cases} CS = OP^C A \\ \Pi = 0 \end{cases} \qquad M = \begin{cases} CS = OP^M B \\ \Pi = P^M DCB \end{cases}$$

$$\Delta SW = \begin{cases} \Delta CS = CS^M - CS^{CP} = \\ -\left(P^M DCB + BFA + DP^C FC\right) \\ \Delta\Pi = \Pi^M - \Pi^{PC} = P^M DCB \end{cases}$$

$$\begin{cases} 1. -\left(p^M DCB\right) \rightarrow \text{ Transference from CS to } \Pi \\ 2. -\left(BFA\right) \rightarrow \text{ Loss of SW} \rightarrow \\ \text{Widened Harberger's Triangle} \\ 3. -\left(DP^C FC\right) \rightarrow \text{ Loss of SW} \rightarrow \\ \text{due to X-inefficiency} \\ \Delta SW = SW^M - SW^{CP} = -(DP^C FC + BFA) < 0 \end{cases}$$

Liebnstein Model (X-Inefficiency)

- In the Liebnstein model the loss of social welfare caused by the monopolization of an industry is larger than in the basic model where the costs of the monopolists and thos of the firms in perfect competition are identical.