

1. Voda Reservoir is a profit-maximizing firm and the only producer of bottled water in a country. Currently, Voda Reservoir is earning negative economic profit.
 - A. Draw a correctly labeled graph for Voda Reservoir and show each of the following.
 - i. The profit-maximizing quantity, labeled Q_M
 - ii. The profit-maximizing price, labeled P_M
 - iii. The average total cost curve consistent with Voda Reservoir earning negative economic profit, labeled ATC
 - iv. The area of deadweight loss, shaded completely
 - B. Suppose the government requires Voda Reservoir to produce the socially optimal quantity of bottled water. On your graph in part A, show the socially optimal quantity of bottled water, labeled Q_S .
 - C. Suppose instead the government grants a per-unit subsidy to Voda Reservoir. What will happen to Voda Reservoir's profit-maximizing quantity of bottled water? Explain.
 - D. Suppose new producers have entered the bottled-water market and Voda Reservoir continues to operate in the bottled-water market. Will the demand for Voda Reservoir's bottled water become more elastic, become less elastic, or stay the same as new producers enter the market?
 - E. Voda Reservoir hires workers in a perfectly competitive labor market.
 - i. If the demand for bottled water increases, what will happen to Voda Reservoir's demand for labor? Explain.
 - ii. The government implements a new regulation that increases the minimum age required for a worker to be employed in a bottled-water factory. What will happen to the market wage in the short run? Explain.