

MERGER ANTITRUST LAW

LAW 1469
Georgetown University Law Center
Fall 2026

Tuesdays and Thursdays, 3:30 pm – 5:30 pm
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CLASS 7 WRITTEN ASSIGNMENT—INSTRUCTOR’S ANSWER

Instructions

Submit by email by 3:30 pm on Tuesday, September 15

Send to wdc30@georgetown.edu

Subject line: Merger Antitrust Law: Assignment for Class 7

Solve these unilateral effects problems (preferably using a spreadsheet). Show your work.¹

Problem 1. Two companies selling competing candy bars—CrispBite and CocoaSnap—plan to merge. Before the merger, each bar sells for \$3.00 with \$2.00 marginal cost. At the \$3.00 price, CrispBite sells 800 bars per week. After the merger, the combined firm considers raising CrispBite’s price by \$0.15 to \$3.15 while keeping CocoaSnap’s price at \$3.00. The price increase is expected to reduce CrispBite’s sales by 120 bars per week; of those lost sales, 42 divert to CocoaSnap and 78 are lost to other products or not purchased. Does the merged firm have a profit-maximizing incentive to implement the contemplated price increase in CrispBite’s price?

Data		Firm with the price increase CrispBite	Recapturing firm CocoaSnap
Price (p_1 & p_2)	\$3.00 per bar	Loss on marginal sales	
Marginal cost (c_1 & c_2)	\$2.00 per bar	Δq_1 120	
Dollar margin ($\$m_1$ & $\$m_2$)	\$1.00 per bar	\$1.00	
Price increase (Δp_1)	\$0.15	Gross loss \$120.00	
Quantity (q_1)	800 bars		
Marginal sales (Δq_1)	120 bars	Gain on inframarginal sales	Gain on recaptured sales
		$q_1 - \Delta q_1$ 680	Δq_2 42
Recapture unit sales (Δq_2)	42 bars	Δp_1 \$0.15	$\$m_2$ \$1.00
		Gross gain \$102.00	Gross gain \$42.00
		Net gain -\$18.00	Net gain to merged firm
			$\Delta \pi_1 + \Delta \pi_2$ \$24.00

Implementing the contemplated \$0.15 increase in CrispBite’s price would be profitable for the merged firm.

¹ If you do the calculations by pencil and paper, send me a photo of your work.

Problem 2. Two companies selling competing energy drinks—VoltRush and Turbocharge—plan to merge. Before the merger, each can sells for \$4.00 with \$2.00 marginal cost. At the \$4.00 price, VoltRush sells 900 cans per day. After the merger, the combined firm considers raising VoltRush’s price by 10% to \$4.40 while keeping Turbocharge’s price at \$4.00. The increase is expected to reduce VoltRush’s sales by 180 cans per day; of those lost sales, 60 divert to Turbocharge and 120 are lost to other products or not purchased. Does the merged firm have a profit-maximizing incentive to implement the contemplated price increase in VoltRush’s price?

Data		Firm with the price increase VoltRush	Recapturing firm Turbocharge
Price (p_1 & p_2)	\$4.00 per can	Loss on marginal sales	
Marginal cost (c_1 & c_2)	\$2.00 per can	Δq_1 180	
Dollar margin ($\$m_1$ & $\$m_2$)	\$2.00 per can	$\$m_1$ \$2.00	
Price increase (Δp_1)	\$0.40	Gross loss \$360.00	
Quantity (q_1)	900 cans		
Marginal sales (Δq_1)	180 cans	Gain on inframarginal sales	Gain on recaptured sales
		$q_1 - \Delta q_1$ 720	Δq_2 60
		Δp_1 \$0.40	$\$m_2$ \$2.00
Recapture unit sales (Δq_2)	60 cans	Gross gain \$288.00	Gross gain \$120.00
		Net gain -\$72.00	Net gain to merged firm
			$\Delta \pi_1 + \Delta \pi_2$ \$48.00

Implementing the contemplated \$0.40 increase in VoltRush’s price would be profitable for the merged firm.

Problem 3. The manufacturer of ReliefMax proposes to acquire its rival allergy tablet AllerSure. Before the acquisition, ReliefMax sells a 24-tablet box for \$12.00 with \$7.00 marginal cost, while AllerSure sells a comparable box for \$11.50 with \$7.50 marginal cost. At the \$12.00 price, ReliefMax sells 1,200 boxes per week. After the merger, the combined firm considers raising ReliefMax's price by \$1.00 (to \$13.00) while keeping AllerSure's price at \$11.50. The increase is expected to reduce ReliefMax's sales by 240 boxes per week; of those lost sales, 84 divert to AllerSure and 156 are lost to other products or not purchased. Does the merged firm have a profit-maximizing incentive to implement this contemplated increase in ReliefMax's price?

Data		Firm with the price increase ReliefMax	Recapturing firm AllerSure
Price (p_1)	\$12.00 per box	Loss on marginal sales	
Marginal cost (c_1)	\$7.00 per box	Δq_1	240
Dollar margin ($\$m_1$)	\$5.00 per box	$\$m_1$	\$5.00
Price increase (Δp_1)	\$1.00	Gross loss	\$1,200.00
Quantity (q_1)	1200 boxes	Gain on inframarginal sales	
Marginal sales (Δq_1)	240 boxes	$q_1 - \Delta q_1$	960
		Δp_1	\$1.00
Price (p_2)	\$11.50 per box	Gross gain	\$960.00
Marginal cost (c_2)	\$7.50 per box		
Dollar margin ($\$m_2$)	\$4.00 per box		
Recapture unit sales (Δq_2)	84 boxes	Net gain	-\$240.00
			Net gain to merged firm
			$\Delta \pi_1 + \Delta \pi_2$
			\$96.00

Implementing the contemplated \$1.00 increase in ReliefMax's price would be profitable for the merged firm.

Problem 4. Two merging full-service sporting goods stores, PeakPro Sports and MetroAthletics, are located on opposite corners of the same intersection. Before the merger, PeakPro Sports sells an average customer “basket” for \$180 with \$140 marginal cost, while MetroAthletics sells an average basket for \$200 with a \$170 marginal cost. After the merger, the combined firm contemplates raising PeakPro’s basket price by \$10 to \$190 while keeping MetroAthletics’s price at \$200. For every 1,200 baskets PeakPro sells at the original price, the \$10 increase is expected to reduce its sales by 300; of these lost baskets, 90 divert to MetroAthletics and 210 are lost to other stores in the retail district or foregone. Does the merged firm have a profit-maximizing incentive to implement the contemplated price increase in PeakPro’s price?

Data			Firm with the price increase PeakPro Sports	Recapturing firm MetroAthletics
Price (p_1)	\$180	per basket	Loss on marginal sales	
Marginal cost (c_1)	\$140	per basket	Δq_1	300
Dollar margin (m_1)	\$40	per basket	m_1	\$40.00
Price increase (Δp_1)	\$10		Gross loss	\$12,000.00
Quantity (q_1)	1200	baskets	Gain on inframarginal sales	
Marginal sales (Δq_1)	300	baskets	$q_1 - \Delta q_1$	900
			Δp_1	\$10.00
Price (p_2)	\$200	per basket	Gross gain	\$9,000.00
Marginal cost (c_2)	\$170	per basket		
Dollar margin (m_2)	\$30	per basket		
Recapture unit sales (Δq_2)	90	baskets	Net gain	-\$3,000.00
			Net gain to merged firm	
			$\Delta \pi_1 + \Delta \pi_2$	-\$300.00

Implementing the contemplated \$10 increase in PeakPro Sports’ price would not be profitable for the merged firm.

Problem 5. BurgerHub, a quick-service restaurant, proposes to acquire GrillBox, a rival located down the street. Before the merger, BurgerHub's average order price is \$12 with a marginal cost of \$7, while GrillBox's average order price is \$13 with a marginal cost of \$10. After the merger, the combined firm considers raising BurgerHub's price by \$1 (to \$13) while keeping GrillBox's price at \$13. At the original prices, BurgerHub sells 1,500 orders per week. The \$1 increase is expected to reduce BurgerHub's weekly sales by 300 orders; absent capacity constraints at GrillBox, 150 of those orders would divert to GrillBox and 150 would be lost to other restaurants or foregone. However, at its current capacity GrillBox can accommodate only 90 of the 150 customers who otherwise would divert to GrillBox; the remaining 60 instead choose outside options or forego purchase. If the merged firm expands GrillBox's capacity so it can accommodate all 150 diverted orders, it would incur \$100 per week in additional fixed labor and operating costs. Does the merged firm have a profit-maximizing incentive to raise BurgerHub's price (i) without expanding GrillBox's capacity and (ii) if it expands GrillBox's capacity and incurs the \$100 weekly expansion cost?

Without expansion		Firm with the price increase BurgerHub	Recapturing firm GrillBox
Price (p_1)	\$12 per meal	Loss on marginal sales	
Marginal cost (c_1)	\$7 per meal	Δq_1 300	
Dollar margin ($\$m_1$)	\$5 per meal	$\$m_1$ \$5.00	
Price increase (Δp_1)	\$1	Gross loss \$1,500.00	
Quantity (q_1)	1500 meals		
Marginal sales (Δq_1)	300 meals	Gain on inframarginal sales	Gain on recaptured sales
		$q_1 - \Delta q_1$ 1200	Δq_2 90
Price (p_2)	\$13 per meal	Δp_1 \$1.00	$\$m_2$ \$3.00
Marginal cost (c_2)	\$10 per meal	Gross gain \$1,200.00	Gross gain \$270.00
Dollar margin ($\$m_2$)	\$3 per meal		
Recapture unit sales (Δq_2)	90 meals	Net gain -\$300.00	Net gain to merged firm
			$\Delta \pi_1 + \Delta \pi_2$ -\$30.00

Implementing the contemplated \$1.00 increase in BurgerHub's price would not be profitable for the merged firm in the absence of the expansion of capacity.

With expansion		Firm with the price increase BurgerHub		Recapturing firm GrillBox	
Price (p_1)	\$12 per meal	Loss on marginal sales			
Marginal cost (c_1)	\$7 per meal	Δq_1	300		
Dollar margin ($\$m_1$)	\$5 per meal	$\$m_1$	\$5.00		
Price increase (Δp_1)	\$1	Gross loss	\$1,500.00		
Quantity (q_1)	1500 meals	Gain on inframarginal sales		Gain on recaptured sales	
Marginal sales (Δq_1)	300 meals				
		$q_1 - \Delta q_1$	1200	Δq_2	150
Price (p_2)	\$13 per meal	Δp_1	\$1.00	$\$m_2$	\$3.00
Marginal cost (c_2)	\$10 per meal	Gross gain	\$1,200.00	Gross gain	\$450.00
Dollar margin ($\$m_2$)	\$3 per meal	Net gain		Net gain to merged firm	
Recapture unit sales (Δq_2)	150 meals				
			-\$300.00	$\Delta\pi_1 + \Delta\pi_2$	\$150.00
			Minus expansion costs	\$100.00	
			Net profit after costs	\$50.00	

Implementing the contemplated \$1.00 increase in BurgerHub's price would be profitable for the merged firm even after accounting for the costs for expanding capacity. Expansion permits 60 additional recaptured orders, generating $60 \times \$3 = \180 of additional contribution for a \$100 expansion cost. Thus expansion adds \$80 relative to the no-expansion price-increase scenario, moving the result from -\$30 to +\$50.