MERGER ANTITRUST LAW

LAW 1469
Georgetown University Law Center
Fall 2025

Tuesdays and Thursdays, 3:30 pm – 5:30 pm
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CLASS 7 WRITTEN ASSIGNMENT

Instructions

Submit by email by 3:30 pm on Tuesday, September 16
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
Recapture unit sales (Δq_2)	60	cans	Δp_1	$0.40	$\$m_2$	$2.00
			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				
Marginal sales (Δq_1)	240	boxes	**Gain on inframarginal sales**		**Gain on recaptured sales**	
			$q_1 - \Delta q_1$	960	Δq_2	84
Price (p_2)	$11.50	per box	Δp_1	$1.00	$\$m_2$	$4.00
Marginal cost (c_2)	$7.50	per box	Gross gain	$960.00	Gross gain	$336.00
Dollar margin ($\$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 baske	**Loss on marginal sales**			
Marginal cost (c_1)	$140	per baske	Δq_1	300		
Dollar margin ($\$m_1$)	$40	per baske	$\$m_1$	$40.00		
Price increase (Δp_1)	$10		Gross loss	$12,000.00		
Quantity (q_1)	1200	baskets				
Marginal sales (Δq_1)	300	baskets	**Gain on inframarginal sales**		**Gain on recaptured sales**	
			$q_1 - \Delta q_1$	900	Δq_2	90
Price (p_2)	$200	per baske	Δp_1	$10.00	$\$m_2$	$30.00
Marginal cost (c_2)	$170	per baske	Gross gain	$9,000.00	Gross gain	$2,700.00
Dollar margin ($\$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 Sport's 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, GrillBox can absorb at most 90 additional orders per week at current staffing; any further diverted orders are lost to outside options. If the merged firm expands GrillBox's capacity so it can accommodate all 150 diverted orders, it would incur $100 per week in additional 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) after expanding 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				
Marginal sales (Δq_1)	300 meals	**Gain on inframarginal sales**		**Gain on recaptured sales**	
		$q_1 - \Delta q_1$	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				
Recapture unit sales (Δq_2)	150 meals	**Net gain**	-$300.00	**Net gain to merged firm**	
				$\Delta\pi_1 + \Delta\pi_2$	$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.

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 be not profitable for the merged firm in the absence of the expansion of capacity.