

ECON 321, Assignment 16: Willig, Unilateral Competitive Effects of Mergers

1. Read the introductory section.
2. Read Section 1. The notation is quite “heavy” here, and a little different from other similar cases we have worked on.

Let’s use a simpler differentiated Bertrand demand system, but still one that’s complicated enough to allow different coefficients on all the prices:

$$q_1(p_1, p_2) = \alpha - \beta_1 p_1 + \gamma_1 p_2$$

$$q_2(p_2, p_1) = \alpha - \beta_2 p_2 + \gamma_2 p_1$$

So as you work through section 1, rewrite each equation using this simple linear demand system. Then I think the math will be clearer if you make the following substitutions:

$$D^1(p_1^0, p_2^0) = q_1^0 \quad D_1^1(p_1^0, p_2^0) = \frac{\partial q_1^0}{\partial p_1} = -\beta_1$$

Analogous substitutions will work for D_2^1 , etc.

3. Now read section 2, writing out equation (9) and the diversion ratio using the above substitutions.
4. Skim Sections 3, 4, 5, and 6. Read Section 7.