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

1. Skim BP 15.3 and 15.4. What we will do below is essentially a version of 15.3.3 but simplified and linked more closely to real-world US merger analysis.

2. Turn to the Willig paper linked in the syllabus. Read the introductory section.

3. 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. It's still complicated enough to allow different coefficients on all the prices:

$$q_1(p_1, p_2) = a - b_1 p_1 + d_1 p_2$$

$$q_2(p_2, p_1) = a - b_2 p_2 + d_2 p_1$$

So as you work through section 1, rewrite each equation using this simple linear demand system. You can do this by making substitutions like the following

$$D^1(P_1^0, P_2^0) = q_1^0 = a - b_1 p_1^0 + d_1 p_2^0$$

$$D_1^1(P_1^0, P_2^0) = \frac{\partial q_1^0}{\partial p_1} = -b_1$$

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.