

Reading Guide: *Proposed Merger of Echostar and DirecTV (Satellite TV)*

This reading guide helps both non-presenters and presenters prepare for class. It offers broad and specific questions to spark critical thinking when engaging with required reading (RR). These focus your attention on the most important parts of the required readings, which are often lengthy and include a mix of not-so-important and *crucial* parts. These get you thinking about important concepts and looking for connections across readings and other course materials. Except when otherwise noted, references are to the first required reading: “Sky Wars: The Attempted Merger of EchoStar and DirecTV (2002)” pp. 115 – 139 in *The Antitrust Revolution, Fifth Edition*. This guide ends with suggested goals and advice for the presenting team.

Broad Questions:

- A. What are all of the theories of harm considered in the RR? Which are most compelling? Least compelling? What are their relative strengths and weaknesses?
- B. Do the very large price increases the authors predict suggest that the hypothetical monopolist test would support a DBS-only antitrust product market?
- C. If you do not get whiplash when reading the paragraph on p. 127 that begins “Two approaches are useful to estimate whether the merger would likely result in higher prices. These are: (1) a Nash-Cournot model of competition and (2) a dynamic model that estimates a bound ...,” you have missed something important. To help ensure you sure you catch what is going on, answer these.
 - a. Which specific oligopoly model has the RR been talking about (exclusively) up to this point? Which features of this industry make that model attractive?
 - b. Does a Cournot oligopoly model make sense in this industry? *Why* did the authors suddenly change to a different model? (Hints: Which challenges were the authors discussing right before this sudden model change? Which important point does footnote 18 make?)
 - c. How does cable factor into equation (2)?
 - d. Which assumption are the authors making when they state the following on p. 127: “The right-hand side of equation (2) is the reciprocal of the firm-specific elasticity of demand for project j ”? Is that a reasonable assumption? (Note: There is a typo where the authors write -2.54 instead of -2.45 and that mistake is carried forward in their calculations.)
- D. How about diversion ratios?
 - a. Using market shares and assuming equally close substitutes, which diversion ratios are implied among DirecTV, Echostar and cable? (You may need to review Shapiro (1996).)
 - i. Would this support the argument mentioned on p. 122: “Proponents of the merger argued that the merger would not adversely affect price or service quality because EchoStar and DirecTV compete to attract customers from cable more than from each other.”
- E. How about an UPP test? Would that (and a sensitivity analysis) be helpful?

- F. How about using the formulas in Shapiro (1996) to predict price effects?
- G. Even if this merger did happen, why would a merger retrospective study be challenging in this particular case?

Specific Questions:

1. Who are the authors of the RR? With which side of the case do their sympathies lie?
2. Can you show with the merger simulation spreadsheets that products with quite different prices can be closest substitutes? That products very similar in prices can be the most distant substitutes? How does this inform your assessment of the arguments presented in the RR?
3. (Note: This is directly targeted at the presenting team.) On pp. 118 – 120 the authors discuss the product market and market shares. Those same pages also discuss how the products are “highly differentiated.” Which insights on this circumstance do Farrell and Shapiro (2010) offer?
4. How many antitrust markets are alleged? What are they?
5. How can Figures 4-1 and 4-2 inform the theories of harm?
6. What does the sentence in the bottom third of p. 124 mean exactly? “Unilateral effects arise when the merged firm has sufficient market power to raise prices above premerger levels with no accommodating price response from other firms in the relevant markets.”
7. What is the particular challenge in estimating the elasticity of demand separately for DirecTV and Echostar? Generally, which kinds of variation would be available in this context to try to figure out (econometrically) how customers would respond to changes in prices? Challenges?
8. What is the precise interpretation of the various numbers reported in Table 4-2? Would there be standard errors associated with these point estimates? Useful to know those?
9. How are the 40% and 70% calculated towards the top of p. 126?
10. In the fourth paragraph on p. 126 there are two typos. While the authors correctly report the estimated DBS elasticity from Goolsbee and Petrin (2004) as -2.45, in obtaining \$44.20 and \$50.12 they transpose two numbers and plug in -2.54 as the elasticity. What should those numbers be?
 - a. More importantly, why isn’t -2.45 the elasticity of demand that either Echostar or DirecTV face? According to basic microeconomic theory, will the demand that either firm faces be more or less elastic? Why? How will this affect these calculations?
11. The last full paragraph on p. 126 begins “An alternative approach employed in modern unilateral effects analysis is to estimate the matrix of own- and cross-price elasticities of demand for products in the relevant markets and use these estimates, along with assumed competitive behavior, to estimate marginal production costs.” Did we talk about this approach in our course? If yes, when and with which papers specifically? What does “assumed competitive behavior” mean more specifically?

12. How sensitive are the calculations in the middle of p. 126 to the estimated demand elasticities? The marginal costs? What kind of standard errors apply to the demand elasticity estimates?
13. What is the assumed model of competition for Equation (1) on p. 125? What is the assumed model of competition for Equation (2) on p. 127? How do these equations differ? What is assumed about closeness of substitutes in Equation (2)? Is this reasonable or not? How does it differ from Equation (1)?
14. How do the numbers change if you correct the typo in the DBS elasticity of demand (i.e. use -2.45 instead of -2.54)?
 - a. What should the numbers \$28.94 and \$31.20 on p. 128 be instead? What is the interpretation of these numbers? Do the magnitudes seem reasonable?
 - b. What should "27 percent above premerger prices" on p. 128 be instead?
15. Consider the statement on p. 129: "If the postmerger marginal cost is smaller than the premerger marginal cost, the postmerger price might be no higher than the prices that existed before the merger." Using their modeling assumptions and the (correct) elasticity estimates, how big of a reduction in marginal cost is necessary such that the merger would leave prices unchanged?
16. Where does the equation on the middle of p. 128 come from? Where do the numbers plugged into it come from? How sensitive are the results to these inputs? What assumptions underlie the use of this formula? What does it show? What is the meaning of the paragraph on the bottom of p. 128?
17. What can we learn from churn data that informs the assessment of whether or not the merger substantially lessens competition?
18. What is the relevant price and marginal cost when a customer considers adopting DBS?
19. What can we learn from Figure 4-3?
20. What is the meaning of Footnote 25? How compelling is the analysis on p. 131? How merger-specific is this theory of harm?
21. Do the authors appear to favor a price standard or a total surplus standard?
22. Which aspects of the assessment of whether this merger would substantially lessen competition are the most open to debate? In other words, where is there the most room for reasonable people of economic expertise to disagree?
23. (Note: This is directly targeted at the presenting team.) Considering Willig's expert report (supplemental reading), which parts of the RR would he object to most forcefully?
24. What kind of materials are included in the References section of the RR? How well does this reflect expectations for your final paper in ECO410?

25. (Note: This is directly targeted at the presenting team.) In 2014 there were media reports of a merger between Echostar (Dish Network) and DirecTV potentially being proposed again. (Since then AT&T has acquired DirecTV.) How would an assessment of whether a merger between Echostar and DirecTV would substantially lessen competition differ in 2014 (or in 2016 so you can do current research) compared to 2002? Key similarities?
26. (Note: This is directly targeted at the presenting team.) Does the 2002 *Complaint* (supplemental reading) follow the typical steps to assess whether a horizontal merger substantially lessens competition? Which kinds of evidence does it rely on?

Suggested Goals and Advice for the Presenting Team:

Suggested goals for the presenting team: *Help the class grasp the trickier parts of the RR, demonstrate critical thinking by considering alternate methods and assessing the methods the authors did use, and illustrate how current industry research can generate many relevant inputs for an economic analysis of the competitive effects of a proposed merger.* The suggested goals and the broad questions are meant to help you organize your team presentation in a coherent manner. In contrast, the specific questions are *not*. In other words, all members of your team should be fluent with the specific questions but your presentation should not be explicitly organized around them. Also, the presenting team is expected to read and study the supplemental readings and engage in independent research into the industry to add depth to the presentation. In the past, teams that have attempted to divide the presentation by assigning team members subsets of specific questions or by assigning team members some subset of the required/supplemental reading have ended up with an incoherent presentation. A successful approach is to truly collaborate so that you all fully understand all parts of your team's presentation and how everything fits together.