Reading Guide: ***Merger Retrospective: Waterstone's and Ottakar's (Booksellers in U.K. and Quebec)***

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: Aguzzoni et al (2016). This guide ends with suggested goals and advice for the presenting team.

Broad Questions:

A. What is the authors' research question?

B. To answer the research question, which approach do the authors take?

- **a.** What are the relevant industry facts and details about the merger?
- **b.** Which data are used?
- **c.** Why do the authors write the estimating equations the way they do?
- **d.** Which are the various approaches to DiD (difference-in-difference) estimation the authors use? Reasons for more than one approach? Relative strengths and weakness of each?

C. What is their answer?

- **a.** Which are the most important tables and figures?
- **b.** What do those results mean?
- **c.** Which are the main results and which are part (of the many) robustness checks?

D. How does this paper illustrate the challenges and merits of *ex post* merger evaluation?

E. Overall, what can we learn from this case study about how booksellers compete and the impact of mergers?

F. What are the similarities and differences between this case study and the second required reading, which is the Competition Bureau's position statement on the Renaud-Bray's 2015 acquisition of Archambault (http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03988.html)?

G. What are the similarities and differences between this case study and the proposed Staples and Office Depot mergers considered by earlier teams?

Specific Questions:

1. What is special about the relevant geographic market for retail mergers? How does this facilitate econometric investigation of mergers *ex post* as well as *ex ante*?

2. What is special about the retail sale of books that is relevant when thinking about how to evaluate the effect of a merger on prices?

3. What is a "counterfactual area" (first mentioned on p. 173)? How is it related to the control group?

4. What are "heterogeneous treatment effects" (first mentioned on p. 173)?

5. What are the theories of harm from the merger that the authors entertain and investigate? In which ways do firms compete in this industry?

6. How many distinct product markets are considered by the Competition Commission (CC)? Who are the most relevant competitors in each?

7. How is the focus of Aguzzoni et al (2016) similar and different from that of the Competition Bureau in the merger of Quebec booksellers (http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03988.html)?

8. On p. 174 the authors talk about "cost-related demand shifters" and "pure demand shifters." What are these?

9. In which ways can the market shares in Table 1 be misleading (considering some of the particular factors at play in this industry)? Why is it still useful to look at those numbers?

10. A very, very common defense offered by merging parties was also offered in this case: "The proposed merger would enable Waterstone's to compete more effectively with Borders, W.H. Smith, the Internet retailers and the supermarkets, as well as other specialist retailers.'" p. 176. (Similar statements, nearly word-for-word can be found by merging parties in other industries.) Are there any conditions under which such a statement could be grounded in sound economics? If so, which conditions?

11. Are the claimed efficiencies (p. 176) cognizable?

12. What is a "hedonic approach" (first mentioned on p. 177)? Why is it important in this study?

13. How large are local areas exactly? Justification given for the delineation of local areas?

14. In the local analysis, how exactly are the treatment and control groups defined? What are the strengths and weaknesses of the authors' definitions?

15. Starting at the top of p. 178 the authors discuss the specifics of how they built the data used in their econometric analysis. Wouldn't a figure that explains the 60 stores and how they breakdown be helpful? (Hint to presenting team: Clear figures are important in presentations.)

16. On p. 178 the authors discuss a "matching methodology." Why?

17. (Note: This question is directly targeted at the presenting team.) In Appendix 1 the authors discuss further the matching methodology. Doesn't the fact that they use DiD mean that any fixed differences between the control and treatment group are not problematic? Benefits from matching? Are any of the results in Table

A1.1 approaching statistical significance? Do they detect any systematic differences between the overlap and non-overlap areas in terms of observable characteristics? Implications?

18. Do the authors imply that the CC defined the relevant product markets too broadly or too narrowly?

19. How exactly are the categories of “evergreen,” “top-seller,” “best-seller” and “deep-range” defined? Overlapping or disjoint? Would a figure be useful to summarize?

20. What is an “unbalanced panel” (first mentioned on p. 179)? Why is it important in this study?

21. How did the authors choose the composition of the *stratified* random sample (not a simple random sample), which is illustrated in Table II? Why do they stratify this way? How will this choice affect the interpretation of any econometric results using this sample (not broken down by the strata)?

22. At the bottom of p. 180 the authors indicate that their main econometric analysis is using the data at the local level. What are the arguments for this being the *main* evidence while the analysis of the national data is supporting evidence? Any arguments that would push things the other way?

23. As stated on p. 180, “Table IV provides descriptive statistics for the set of variables used in the local analysis.” Inspection of that table shows the number of observations ranges between 204,013 and 207,690. However, there should be 521,280 observations. (Make sure you can find the number 521,280, which will require that you use Table II and other information.) Why is there a discrepancy?

24. A sub-section entitled “Local Price Variation” begins on p. 182 and continues to p. 185. What is the key criticism of their research approach that the authors attempt to address? Are you satisfied? Do they have anything nearly as compelling as the local flyer comparisons in the classic 1997 Staples/Office Depot matter (e.g. p. 7 at https://www.ftc.gov/sites/default/files/attachments/educational-materials/thompsmerg.pdf)?

25. On pp. 183 – 185 the authors discuss the coefficient of variation (cv) extensively. Here is a sentence that I highlighted in my copy of the paper: “For each title and for each month in our sample, the coefficient of variation was calculated as the ratio between the standard deviation and the mean of the average percentage discount across the 60 stores.” What is the cv? What are its merits as statistic that measures variability? How many cv’s did they calculate? How did they summarize these? What, again, is the important point behind all of this investigation of cv’s?

26. On p. 183 that authors state “the analysis of the coefficients of variation confirms the existence of *some* discount variability across stores [emphasis added].” Is there more than “some” variation indicated? Would a cv of 1 indicate a substantial amount of variability in discounts across stores?

27. On p. 184 the authors state “some price dispersion across stores may then be caused by different rates of bundle take-up, rather than by different pricing strategies.” What does this mean? Why is this a particular concern?

28. What does the results in Figure 3 mean? What do they suggest the outcome of the much more complication econometric analysis that follows will be? Is that what actually happens?

29. What does this sentence imply should be the result of estimating Equation (1): “The identifying assumption at the basis of our DiD analysis is that, if local managers were, at least to some extent, free to set prices at the store level and the merger had anticompetitive effects, these effects should have been larger in the overlap areas, because of the reduction in local competition brought about by the merger” (p. 185)?

30. What is the dependent variable in all econometric specifications? How (exactly) is it defined?

31. What is the meaning of each term in Equation (1)? What is the range of values for each index?

32. Does it appear that the common trends assumption holds in this study? Why is the validity of the authors’ econometric approach dependent on that assumption?

33. The authors worry about the possibility that the merger may impact discounts offered on new releases. What is the econometric challenge they encounter when trying to investigate that possibility?

34. What do the results in Table V mean? Show how the authors obtain the 95% confidence intervals discussed on p. 188 and discuss the economic and statistical significance of the results.

35. What is the overall point of the daunting Table VI? What do the first two rows of results mean? (i.e. the ones right under “WATERSTONE’S/OTTAKAR’S”)

36. How is the fundamental approach used for the national analysis (starting on p. 193) similar to the local analysis? Different from it? In the national analysis, what are the control groups considered? Are they valid? Why might using competitors’ discounts as the control lead to an underestimate of the impact of the merger on the merging parties’ discounts?

37. In Equation (2), what are the values of the index j?

38. Why is it silly for the authors to report the value of the constant term in Tables V, VII, VIII and IX?

39. What do the low values of the R-squared mean?

40. Is the data used to estimate Equation (3) more like Equation (1) or Equation (2)?

41. There is a bad typo in the variable names in Table IX. What is it?

42. On pp. 197 – 198 the authors state: “The availability of data at both the local and national level coupled with different identification strategies and, in particular, *different counterfactuals*, allows us to perform complementary assessments of the effect of the merger, which give a broader picture of its implications [emphasis added].” What are the three counterfactuals considered by Equations (1), (2) and (3), respectively? To help you, each counterfactual could be written in this form “But for the merger, how would the discount ______ differ?” where you have to figure out the precise phrase that goes in the blank.

Suggested Goals and Advice for the Presenting Team:

Suggested goals for the presenting team: *Help the class understand the overall structure and main message of this empirical paper, grasp the key details, appreciate the limitations, and see the connections between the* *paper and larger questions and issues including the Renaud-Bray and Archambault 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.