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|  | To Review 1 and 2 [General comments] We have updated the merger lists to incorporate the reviewers’ comments, and we have revised the estimation results accordingly. This update has significantly improved our estimation outcomes, enabling point estimation across all regimes by removing a few outlier samples, while maintaining the consistency of the results and their implications. We sincerely appreciate the reviewers’ valuable feedback on our merger lists, which has greatly contributed to enhancing the robustness of our analysis. |
| 1. Are the objectives and the rationale of the study clearly stated?  Please provide suggestions to the author(s) on how to improve the clarity of the objectives and rationale of the study. Please number each suggestion so that author(s) can more easily respond.  Reviewer #1: Mergers and acquisitions activities in the shipping industry is a hot research topic. However, mergers and acquisitions are different strategic decisions for the corporations. This manuscript uniquely focuses on merger decisions excluding acquisition decisions. The authors need to clarify the rationale of selecting criteria and why only chose to study mergers rather than mergers and acquisitions. Moreover, regarding the merger data the authors build, it includes merger events such as COSCO's merger with China shipping but also contains acquisition events such as Maersk acquiring CCNI.  Reviewer #2: yes | To Review 1:  Your valuable input is much appreciated. It is accurate to conclude that there is a fundamental distinction between mergers and acquisitions. We believe your comments will contribute to a more comprehensive analysis. As you rightly observed, the list encompasses cases that could be categorized as either mergers or acquisitions.  However, the analysis presented in this paper does not differentiate between mergers and acquisitions with regard to the consolidation of the service provision system and the transport network for container transport. In order to address this point, we have included an additional explanation in the Appendix regarding the construction of the data. This states that there is no significant distinction between mergers and acquisitions that are primarily involved in container transportation, provided that the primary focus of the analysis is on the scale of service provision and the transportation network itself.  “The M&A deals listed in Tables 1 to 3 can be classified as either mergers or acquisitions. The majority of the cases in Table 1 were mergers, with the exception of one case. The other case also neared to merger as the company was purchasing services from a company that was withdrawing from the container industry.  The cases shown in Table 2 are mainly from the second half of the 1990s onwards, although the majority of cases are classified as acquisitions. There are instances where the acquired company's brand was deemed valuable and therefore retained (APL and CP SHIPS), as well as cases where the company was retained to oversee other operations, such as ship ownership (SVITZER and DANSK). In some instances, the company in question is subsequently absorbed (as was the case with DELMAS and CP SHIPS). Nine cases out of the 18 cases in Table 3 can be classified as acquisitions.  Mergers and acquisitions differ in whether the target company survives, and are essentially different things in terms of corporate decision-making. However, as in the analysis in this paper, as long as the main focus of the analysis is on the scale of service provision and the transport network itself, it can be seen that there is no significant difference between merger and acquisition in the container transport business. Because even in cases where only the container transport business is acquired from the target company, or the buyer company remains as a shareholder or retains the brand, the independence of the transport network is considered to be low.  For example, the decision to entry an alliance is made in a similar manner, regardless of whether it is a merger or an acquisition. In the case of Royal Nedlloyd Lines and P&O Containers, which merged in 1997, the participating alliances differed. However, following the merger, they became a single company within the alliance. Prior to NOL's acquisition of APL in 1998, the participating alliances differed, but following the acquisition, they became part of the same alliance.”  Also, we add the subset of the above parts to 2.2 Industry Background. |
| 2. If applicable, is the application/theory/method/study reported in sufficient detail to allow for its replicability and/or reproducibility?  Please provide suggestions to the author(s) on how to improve the replicability/reproducibility of their study. Please number each suggestion so that the author(s) can more easily respond.  Reviewer #1: Mark as appropriate with an X:  Yes [X] No [] N/A []  Provide further comments here:  Since the authors manually create a merger list, if the authors would offer the dataset it is helpful for other researchers to reproduce the study.  Reviewer #2: Mark as appropriate with an X:  Yes [X] No [] N/A []  Provide further comments here: | To Review 1:  We will plan to upload our merger list on the authors’ github account, so it will be publicly available. However, the variables used in our empirical analysis will not be shared for free because these come from confidential dataset. |
| 3. If applicable, are statistical analyses, controls, sampling mechanism, and statistical reporting (e.g., P-values, CIs, effect sizes) appropriate and well described?  Please clearly indicate if the manuscript requires additional peer review by a statistician. Kindly provide suggestions to the author(s) on how to improve the statistical analyses, controls, sampling mechanism, or statistical reporting. Please number each suggestion so that the author(s) can more easily respond.  Reviewer #1: Mark as appropriate with an X:  Yes [] No [X] N/A []  Provide further comments here:  For the sampling, this study aims to merge decisions of container shipping companies, but the merger list still contains other sectors including energy and bulk. For instance, the merger of COSCO and China shipping is not limited to the container sector, and both COSCO and China shipping groups involve dry bulk and tanker shipping. Hence the authors need to justify.  Moreover, for the firm size, the authors need to explain why to quantify the size by tonnage capacity, and this capacity is defined as operating fleet or owned fleet.  Regarding the distance between countries where the shipping companies are based, since the company is usually based in many cities within its registered country, how to calculate the distance if two companies registered in the same country?  Reviewer #2: Mark as appropriate with an X:  Yes [X] No [] N/A []  Provide further comments here: | To Review 1: Your feedback is greatly appreciated.  First, the M&A deals presented in Tables 1 to 3 include shipping companies operating across various sectors beyond container shipping, such as COSCO, CHINA SHIPPING, Japanese companies, and Maersk in the energy sector. However, since our research focuses on mergers in the container transport sector, this inclusion is justifiable as we rely solely on container ship data. Integrating data from other sectors is infeasible due to the limitations of our dataset. Additionally, we use operated fleet capacity as our primary metric, as it aligns closely with sales volumes and provides a more suitable indicator of company size compared to owned capacity. We added this explanation in Footnote 4.  Second, we add the following explanation about  capacity in Section 2.1 Data source. “By consolidating ship-level data, we construct firm-year-level variables, including country names and owned operating container capacity, measured in Twenty-foot Equivalent Units (TEU), which is available as a common capacity variable across our three data sources.”  Third, we add the following explanation about distance in Section 2.3 Descriptive statistics.  “Figure 4 depicts distributions of realized match-level distances calculated as the Euclidean distance based on the latitude and longitude of the capital cities of flag countries of matched firms. If the flag countries are the same, the distance is zero.” |
| 4. Could the manuscript benefit from additional tables or figures, or from improving or removing (some of the) existing ones?  Please provide specific suggestions for improvements, removals, or additions of figures or tables. Please number each suggestion so that author(s) can more easily respond.  Reviewer #1: For the attributes the authors choose, it is necessary to provide the detail about N\_b and N\_s for each period of the matching simulation.  Reviewer #2: no | To Review 1:  I appreciate helpful suggestion for clarification on the detail about the numbers of potential buyers and sellers for each period of the matching simulation. We add the following in footnote 8. “As shown in Table 4 and one-to-one matching feature, $|\mathcal{N}\_s|=|\mathcal{N}\_b|=8$ for the regime (1966-1990), $14$ for the regime (1991-2005), and $21$ for the regime (2006-2022).” |
| 5. If applicable, are the interpretation of results and study conclusions supported by the data?  Please provide suggestions (if needed) to the author(s) on how to improve, tone down, or expand the study interpretations/conclusions. Please number each suggestion so that the author(s) can more easily respond.  Reviewer #1: Mark as appropriate with an X:  Yes [X] No [] N/A []  Provide further comments here:  The authors need to define the percentage of correct matches and how to calculate it.  Reviewer #2: Mark as appropriate with an X:  Yes [X] No [] N/A []  Provide further comments here: | To Review 1: I appreciate helpful suggestion for clarification on the percentage of correct matches and how to calculate it. We add the following explanation to footnote 10.  “Using the estimated parameters, we compute all possible inequalities in (3) and evaluate whether each inequality is the same as the corresponding actual inequality in the data.” |
| 6. Have the authors clearly emphasized the strengths of their study/theory/methods/argument?  Please provide suggestions to the author(s) on how to better emphasize the strengths of their study. Please number each suggestion so that the author(s) can more easily respond.  Reviewer #1: Not sufficient.  The authors only claim that size has a more significant effect than age from 1991 to 2005, but do not explain the mechanism of how size influences the merger decision. Whether the buyer and seller with large size tend to merge.  I only agree with the insight the author argued in the interview section that merger decisions of shipping companies are determined by complex factors. It is oversimplified for only considering size, age, and distance.  It would be helpful if the authors could clarify more industrial insights based on the empirical study.  Reviewer #2: yes | Your feedback is greatly appreciated. The following explanation has been added to “4. Results”.  “The primary motivation for container shipping companies to expand is the pursuit of economies of scale (International Transport Forum 2018,Notteboom 2012). The motivation to pursue economies of scale is likely to be greater for larger companies. This is because while the market is growing, the fixed costs required to maintain the size of the fleet and global network are growing even faster (United Nations Conference on Trade and Development 2022). This motivation was behind the fact that the size of the company acted as an incentive for mergers between 1991 and 2005.  On the other hand, since 2006, the size of the companies has become an obstacle to mergers, and this is thought to be related to the fact that in recent years there has been a trend toward consolidation among container shipping companies, and it has become easier for competition authorities and governments to raise objections when large companies merge. Several reports and articles have noted this relationship. For example, United Nations Conference on Trade and Development (2022) has noted that it is becoming more difficult for companies with large operations to merge, stating that “Container ship sizes seem to have reached a maximum and further mergers and acquisitions are constrained by regulatory limitations.” When Maersk merged with Hamburg Sud, the merged company was required to withdraw from the consortium on several routes (European Commission 2017), and when COSCO and CHINA SHIPPING merged, the U.S.  government reportedly required them to sell their container terminals (Yung 2019).” |
| 7. Have the authors clearly stated the limitations of their study/theory/methods/argument?  Please list the limitations that the author(s) need to add or emphasize. Please number each limitation so that author(s) can more easily respond.  Reviewer #1: Not sufficient.  The authors must add more previous studies about M&A activities in the shipping industry, especially comparing the findings about how company size, age, and geographical area affect merger decisions.  Reviewer #2: yes | To Review 1: Your feedback is greatly appreciated. We add the insights from previous studies to the related literature in Section 4: Results.   “The reduced significance of distance as a barrier in the shipping industry is likely due to mergers empha-  sizing the importance of maintaining a global network. Notteboom (2012) identified one of the key motives  for mergers and acquisitions in liner shipping as the opportunity to gain immediate access to markets and  distribution networks. Similarly, Yeo (2013) observed that in the container shipping industry, larger compa-  nies are more likely to acquire firms located on a different continent, highlighting the strategic importance  of international expansion. Furthermore, Brooks and Ritchie (2006), in their analysis of shipping mergers  and acquisitions from 1996 to 2000, reported that 40% of these transactions were cross-border, underscoring the global nature of such activities.” |
| 8. Does the manuscript structure, flow or writing need improving (e.g., the addition of subheadings, shortening of text, reorganization of sections, or moving details from one section to another)?  Please provide suggestions to the author(s) on how to improve the manuscript structure and flow. Please number each suggestion so that author(s) can more easily respond.  Reviewer #1: The authors must add more previous studies about M&A activities in the shipping industry, especially comparing the findings about how company size, age, and geographical area affect merger decisions.  Reviewer #2: The discussion part could be improved. | To Review 1: The comments are same as in Q7 and addressed there.  To Review 2: We include the additional insights shown in Q7 as a new paragraph in Discussion Section. |
| 9. Could the manuscript benefit from language editing?  Reviewer #1: Yes  Reviewer #2: No    Reviewer #1: This field is optional. If you have any additional suggestions beyond those relevant to the questions above, please number and list them here.  Reviewer #2: This paper is well-written and utilizes a unique and valuable dataset. However, a few minor suggestions should be addressed before publication in the Transport Policy Journal.  1. The research title is quite lengthy and could be shortened for clarity.  2. Page 3, first paragraph: The sentence "Our estimation results indicate that the assortativeness of both size and geographical proximity contributes to merger incentives or disincentives" needs to be more specific. For instance, firm size influences merger incentives or disincentives in different periods, while geographical proximity consistently contributes to disincentives across all periods.  3. Page 3, first paragraph: The statement "First, the assortativeness of a firm's size shifts from negative (1991-2005) to positive (2006-2022)" appears to be incorrect; it should indicate a shift from positive to negative.  4. Page 10, Figures 2a and 2b: The text in the image is too small to read clearly, and the lines are not straight enough.  5. Page 19, first paragraph: "China Shipping's alliance" should be corrected to "China Shipping's alliance." | To Review 2:  1. We shortened the title as “Unified Merger List in the Container Shipping Industry from 1966 to 2022: A Structural Estimation of Merger Matching”  All suggested points (2-5) are reflected in the draft. |