Referee Report

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Econ 401

1 Summary

This paper examines the effect of investors owning shares in multiple horizontal competitors, i.e., "common ownership," on firm productivity. Towards answering this question, the authors constructed a novel dataset on ownership and control structure among public US firms. The baseline analysis in the paper consisted of a panel regression of firm productivity on common ownership (operationalized in the main analysis using profit weights), as well as a number of controls (most notably industry-by-year fixed effects); the paper also includes a second version adding a squared term for common ownership to accommodate non-linearities:

$$\widetilde{\omega}_{ft} = \beta_1 * \kappa_{ft} + \Phi * X_{ft} + \alpha_{st}$$
$$\widetilde{\omega}_{ft} = \beta_1 * \kappa_{ft} + \beta_2 * \kappa_{ft}^2 + \Phi * X_{fts} + \alpha_{st}$$

where $\widetilde{\omega}_{ft}$ is estimated "revenue productivity," κ_{ft} is the common-ownership measure, X_{ft} is a vector of controls, and α_{st} is industry-by-year FEs. The authors find a negative relationship between common ownership and firm productivity. The authors also re-estimate the model after adding in a variable for managerial incentives (operationalized with wealth-performance sensitivity) and find that managerial incentives account for some, but not all, of the relationship between common ownership and productivity.

To further address endogeneity concerns, the authors then turn to a diff-in-diff strategy. They use the addition of a firm to the S&P 500 index as a plausibly exogenous shock to the common ownership incentives of index incumbent competitors and estimate the below model:

$$\widetilde{\omega}_{ft} = \text{ Post }_{ft} * \text{ Treat }_{ft} + \text{ Post }_{ft} + \text{ Treat }_{ft} + \Phi_1 X_{ft} + \Phi_2 \text{ Post }_{ft} * X_{ft} + \alpha_t + \alpha_s$$

where the terms are either clear or follow from the previous model. They find a negative, but statistically insignificant, effect of index additions on firm productivity.

Finally, they employ the strategy of using index additions as an instrument for variation in managerial incentives with the outcome of interest remaining firm (revenue) productivity. They find a strong first-stage in which the index addition of a competitor leads to a 17% decline in managerial wealth-performance sensitivity. They estimate the following:

$$\text{wps }_{ft} = \text{ Post }_{ft} * \text{ Treat }_{ft} + \text{ Post }_{ft} + \text{ Treat}_{ft} + \Phi X_{ft} + \text{ Treat }_{ft} * X_{ft} + \alpha_t + \alpha_s$$
$$\widetilde{\omega}_{ft} = \widehat{wps}_{ft} + \Phi X_{ft} + \alpha_t + \alpha_s$$

They find a significant positive effect of the instrumented variation in WPS on firm productivity, which corresponds to a negative effect of common ownership on firm productivity.

2 Commentary

This paper makes several contributions to the literature on the effects of common ownership. First, the creation of the novel dataset on ownership and control structure among public US firms is a significant contribution in and of itself. In contrast to past datasets, this dataset includes not only institutional investors' holdings, but also large individual shareholders and corporate insiders. Moreover, the paper aims to bring empirical evidence to bear on theoretical debates. Although there has certainly been work on the effects of common ownership (Antón et al., 2024; Bas et al., 2023; López & Vives, 2019), there has not been work on assessing the effect of common ownership on firm productivity, despite theory-based arguments that common ownership may influence firm productivity via changes to managerial incentives (Antón et al., 2023).

Beginning with the panel data analysis, I would be interesting in seeing some discussion of contending with the challenges stemming from unbalanced panel data, which the authors seem to have (Baltagi, 2021).

It appears that the authors ran a traditional staggered diff-in-diff. It seems it would be sensible to employ – at least as robustness checks – some of the more recent advances in the diff-in-diff literature discussed in Baker et al. (2022).

The final analysis of the paper employing the index additions as an instrument for managerial incentives currently reads as under-justified. The authors dedicate compelling evidence to the first-stage relationship between index additions and managerial incentives (further evidencing results found in Antón et al. (2023)). However, sentences like "Anton et al. (2022) and our validation of their results show that index addition shock is a valid instrument, as it causes significant variation in managerial incentives." are jarring to read, as they seem to imply that the validity of an instrument relies only on instrument relevance. (If there is a terminology norm that I am not familiar with, I apologize, but this is not the norm that I am familiar with.)

The point of confusion referenced in the last paragraph is indicative of my broader complaint, which is that the authors dedicate very little time to convincing the reader that the exclusion restriction is satisfied. The authors' argument on this front is primarily limited to the sentence: "Furthermore, the exclusion condition, that the shock to common ownership only affects productivity via its effect on managerial incentives, is fulfilled, assuming that our prior argument for insignificant countervailing effects via competitive pressures holds" and the use of the Sargan-Hansen test. Though it is good that the authors' cite the evidence from Afego (2017) to argue against the role of competitive pressures, I would have anticipated more discussion of the alternative avenues by which index additions (even in the diff-in-diff design) could influence firm productivity outside of common ownership (partially provided), as well as the avenues by which common ownership could influence firm productivity outside of managerial

incentives. It may well be that the exclusion restriction is satisfied, but given its importance for the claims the authors are making, I would want more evidence/argument. For example, it doesn't seem that they spend much time – in the context of the instrument – discussing possible effects of common ownership on productivity via other mechanisms put forward in Rotemberg (1984).

The discussion of "revenue" productivity versus more conventional productivity through the lens of analyzing the effects on markups is helpful. If there is any way to provide cleaner bounds on the effect on conventional productivity, that would be helpful. (Perhaps there are additional assumptions or partial identification methods that could be applicable to this exercise.)

I am somewhat perplexed by the intensely negative R^2 values in some of the models, e.g., Table 30 with a -1.8. This may come from my own ignorance, but it may be beneficial to clarify why that's normal in this setting.

It seems that a number of robustness checks fail to reproduce the main results (at least at significant levels; e.g., the dynamic panel). These results, combined with the insignificant diff-in-diff, provide a number of results that don't seem to cleanly fit the proposed narrative. I think it is to the authors' credit that they included all of these results despite their lack of significance, rather than attempt to justify not including them or massage them into something cleaner. That said, I think that the authors could spend a bit more time convincing the reader of why their chosen iterations of answering this question are the most compelling.

References

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