

# Conceptual Breakthroughs on Common Ownership and Competition

## *A Framework for Evaluating Policy*

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### 12.1 INTRODUCTION

Common ownership is the phenomenon of ownership of natural competitors in an industry by an overlapping set of institutional investors. Ignited by an empirical study of US airline competition under common ownership<sup>1</sup>, a recent literature exploring the possibility of anticompetitive effects caused by common ownership has not only raised long dormant conceptual questions in corporate finance, organizational and labour economics, and industrial organization<sup>2</sup> but also raised questions in antitrust law,<sup>3</sup> corporate law,<sup>4</sup> and securities law<sup>5</sup>. Moreover, the original common ownership paper has triggered a policy discussion<sup>6</sup>

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<sup>1</sup> J Azar, M Schmalz and I Tecu, 'Anticompetitive Effects of Common Ownership' (2018) 73 J Fin 1513.

<sup>2</sup> See M Schmalz, 'Common-Ownership Concentration and Corporate Conduct' (2018) 10 Annu Rev Financial Econ 413.

<sup>3</sup> See E Elhauge, 'Horizontal Shareholding' (2016) 109 Harv L Rev 1267 [hereinafter *Elhauge*] and the literature that followed, including E Elhauge, 'How Horizontal Shareholding Harms Our Economy – And Why Antitrust Law Can Fix It' (2020) 10 Harv Bus L Rev 207; E Elhauge, 'The Causal Mechanisms of Horizontal Shareholding' (2021) 82 Ohio St LJ 1.

<sup>4</sup> Shareholders with heterogeneous portfolios generally only agree on firm value maximization as the firm's objective when firms are price takers; see O Hart, 'On Shareholder Unanimity in Large Stock Market Economies' (1979) 47 *Econometrica* 1057. Therefore, when shareholder have heterogeneous portfolios and preferences – or agree on alternative objective functions – the entire corporate governance ecology that interacts with the firm's objective changes. This change affects optimal executive compensation, voting, and fiduciary duty.

<sup>5</sup> Commissioner Robert J Jackson Jr, 'Common Ownership: The Investor Protection Challenge of the 21st Century' (Federal Trade Commission Hearing on Competition and Consumer Protection, New York, 6 December 2018) [www.sec.gov/news/testimony/jackson-testimony-ftc-120618](http://www.sec.gov/news/testimony/jackson-testimony-ftc-120618) Jackson.

<sup>6</sup> See, e.g. E Posner and others, 'A Proposal to Limit the Anticompetitive Power of Institutional Investors' (2017) 81 Antitrust LJ 669; E Rock and D Rubinfeld, 'Antitrust for Institutional Investors' (2017) NYU Law and Economics Research Paper No 17–23 <https://ssrn.com/abstract=2998296>; D Lund, 'The Case Against Passive Shareholder Voting' (2018) 43 J Corp L 493.

that arguably challenges the business practices of the asset management industry as we know it<sup>7</sup>.

In a review of the economics and finance literature<sup>8</sup> on common ownership in 2018, I laid out the conceptual challenges this line of inquiry brings to the surface, and suggested directions for future research. In a second review,<sup>9</sup> I reported on the exploding empirical literature that responded to some of these directions, but mainly documented robustness of the basic premise: the effects of common ownership on corporate behaviour and market outcomes have now been documented in a host of different industries and settings and using a variety of different methodologies. Further, many early criticisms of the literature were proven incorrect and have been withdrawn.<sup>10</sup>

In this paper, I analyse conceptual challenges that the original ‘airlines’ paper left for future research to address, and which many believed would need to be addressed before a consideration of policy changes would be appropriate. These questions include: how would estimates or (anti-)competitive effects of common ownership of horizontal competitors be affected if agency problems, informational frictions, and organizational complexities were considered? Are estimates of horizontal common ownership links on product market outcomes affected by considering the effect of common ownership links between vertically related firms as well? Are there methods to ensure that effects are truly causal? And perhaps most importantly: how does the lifting of data limitations change researchers’ ability to measure effects of common ownership on firm behaviour and market outcomes? Given the data limitations, is there a consensus now on how much common ownership there is? The first part of this paper brings the reader up to speed by addressing these questions.

In the second part of the paper, I develop a framework and use it to evaluate policy proposals others have made to address the antitrust and governance challenges posed by the rise of ‘common ownership’ and the related rise of ‘passive investing’. The objective of that discussion is primarily to provide a clear framework to help organize and analyse the various proposals, and to view their conceptual commonalities and differences from an economic perspective. The framework is meant to clarify which directions have which likely costs and benefits, and which uncertainties come with which approach. The objective is not to engage with detailed – though important – issues of implementation, or to provide a final answer to what should or shouldn’t be done, but to help shape a more informed and perspicuous debate. As such, the present paper is not meant to substitute for or contain the state of debate

<sup>7</sup> T Hunnicutt, ‘BlackRock says outside commentaries on index funds could pose risk’ (*Reuters*, 28 February 2018) [www.reuters.com/article/us-blackrock-funds-index-idUSKCN1GC345](http://www.reuters.com/article/us-blackrock-funds-index-idUSKCN1GC345).

<sup>8</sup> Schmalz (n 2).

<sup>9</sup> M Schmalz, ‘Recent Studies on Common Ownership, Firm Behavior, and Market Outcomes’ (2021) 66(1) *Antitrust Bull* 12–38.

<sup>10</sup> See J Azar, M Schmalz, and I Tecu, ‘Research on the Competitive Consequences of Common Ownership: A Methodological Critique’ (2021) 66(1) *Antitrust Bull* 113–122.

between the authors of various proposals. Instead, I focus on overlooked dimensions relevant to the policy debate that arise from the recent economics and finance literature's application to law and policy.

## 12.2 NEW CONCEPTUAL BREAKTHROUGHS

In this part, I explore how our conceptual understanding of important features of common ownership has advanced by recent research responding to questions that arose with the publication of Azar, Schmalz, and Tecu's paper<sup>11</sup>.

### 12.2.1 *How Do Agency Frictions, Informational, and Organizational Complexities Affect How Common Ownership Affects Product Market Outcomes?*

At the 2018 FTC Hearings on Common Ownership, FTC Commissioner Noah J. Phillips remarked that '... areas of research that I, as an antitrust enforcer, would like to see developed before shifting policy on common ownership [are]: Whether a clear mechanism of harm can be identified ...'<sup>12</sup> At the same event, SEC Commissioner Robert Jackson Jr. added: 'The organizational complexity of today's largest public companies makes it far from clear how – even if top managers receive an anticompetitive signal from their pay packages – those incentives affect those making pricing decisions throughout the organization. [...] For these reasons, I worry that the evidence we have today may not carry the heavy burden that ... I would require imposing costly limitations'.<sup>13</sup> I focus on two recent contributions to the literature that have pushed the boundaries of knowledge in these dimensions.

My recent co-authored work<sup>14</sup> offers both an economic model and empirical analysis identifying a mechanism of harm. Our 'Antón and others' model makes two modifications to a standard model of optimal executive compensation amid a moral hazard problem. The first modification is that we do not restrict the firm to be a price taker. Instead, firms strategically interact, as in a standard model of industrial organization. The second modification is that we allow shareholders to hold more than one firm, as standard diversification motives would dictate. This latter assumption contrasts with arrived models in industrial organization, which implicitly assume that shareholders do not diversify across competitors (or that firms entirely

<sup>11</sup> Azar, Schmalz, and Tecu (n 1).

<sup>12</sup> N Phillips, 'Protection in the 21st Century Corporate Governance, Institutional Investors, and Common Ownership' (FTC Hearing #8: Competition and Consumer, NYU School of Law, 6 December 2018) [www.ftc.gov/system/files/documents/public\\_statements/1454690/phillips\\_-\\_ftc\\_hearing\\_8\\_opening\\_remarks\\_12-6-18.pdf](http://www.ftc.gov/system/files/documents/public_statements/1454690/phillips_-_ftc_hearing_8_opening_remarks_12-6-18.pdf).

<sup>13</sup> Jackson (n 5).

<sup>14</sup> M Antón and others, 'Common Ownership, Competition, and Top Management Incentives' (2021) Ross School of Business Paper 1328, European Corporate Governance Institute – Finance Working Paper 511/2017 <https://ssrn.com/abstract=2802332>].

ignore thus-arising shareholder incentives). The baseline prediction of the Antón and others model is that more common ownership leads to less performance sensitive managerial incentives. The reason is that more performance-sensitive incentives induce stronger managerial incentives to exert ‘effort’, which reduces the firm’s cost. Taking product prices as given – as in standard agency models – such a cost reduction would increase margins and profits. However, when firms strategically interact, a firm with lower costs will also optimally produce more output and set lower prices in industry equilibrium. Doing so imposes a negative externality on competitors. The shareholder of a single firm may still favour that, but common owners of competitors internalize such externalities, and therefore are less keen on spending resources to improve governance in any one target firm. As a result, commonly owned firms feature less performance-sensitive managerial incentives, and weaker corporate governance in general, and their costs are higher.

As a result of these higher costs – as opposed to because of higher margins – product prices are higher. Therefore, the view that common owners are relatively ‘lazy’ or low-cost principals that underinvest in stewardship and are ‘excessively deferential’ to managers (as Bebchuk and Hirst argue)<sup>15</sup> is not incompatible with anticompetitive effects of common ownership. To the contrary, in the Antón and others model, common ownership is the reason, endogenously, the owners choose to underinvest in stewardship, which in turn harms productivity and increases product prices. Phrased differently, the general insight is that *cost-reducing good governance imposes a negative externality on competitors*. This is one reason – among others identified elsewhere in the literature – why common owners underinvest in ‘good governance’, compared to otherwise similar investors who do not also own large stakes in competing firms. As a result, common ownership induces a ‘productive inefficiency’ – an inward shift in supply curves – as opposed to only a redistribution of rents from consumers to producers and a small deadweight loss. This insight is important for the evaluation of policy proposals that would limit the ability of common owners to influence their product market firms but without reallocating such control rights to other investors. In the context of the Antón and others model, everything else equal, such a policy could make the problem worse.<sup>16</sup> I will get back to these points in Part 2 of this essay.

The theoretically proposed mechanism is empirically identified by Antón and others using the index inclusion of competitors.<sup>17</sup> To illustrate the strategy, assume Delta and United Airlines are already in the S&P 500 index. Southwest gets added to the index. Southwest’s ownership structure changes because of the index inclusion – after all the S&P 500 index trackers now have to buy Southwest – but Delta

<sup>15</sup> L. Bebchuk and S. Hirst, ‘Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy’ (2019) NBER Working Paper No w26543 <https://ssrn.com/abstract=3282794>.

<sup>16</sup> Antón and others (n 14).

<sup>17</sup> *Ibid.* at Table 9

and United's ownership structure is unaffected. Yet, Delta and United are 'treated' with a dose of common ownership: their pre-existing owners now have greater holdings of Southwest shares as well. This treatment with 'common ownership' is followed by reductions in the wealth-performance sensitivity of Delta and United's top executives' compensation packages, as predicted by theory.

This mechanism of harm can explain cross-market correlations between common ownership and higher product prices: in markets in which a commonly owned high-cost provider competes with a not-commonly owned low-cost provider, naturally, product prices are lower. In markets in which only commonly owned peers compete, prices are higher. Hence, common ownership correlates positively with product prices, even within firms and across markets. Because a low-cost provider will also produce a relatively greater quantity, the theory also correctly predicts that common ownership is negatively related to market concentration. In fact, it is the only theory to date that can organize the set of empirical results the literature has produced to date.<sup>18</sup>

The model thus proves that there are no particular informational requirements necessary for common ownership to affect market-level competition via standard governance channels. The mechanism does not even require firm managers to know who their largest shareholders are for the managers to act in the shareholders' interest: the manager simply takes her incentive contract as given and acts accordingly. The informal conjecture – promoted by prominent commentators<sup>19</sup> – that for common ownership to have market-level effects, an elaborate corporate governance mechanism would be required simply does not hold up to the scrutiny of mathematical logic. The theory of harm the model proposes, and the empirics identifies, is thus not complicated, but rather follows long-established standard theories and practices of 'normal' corporate governance activities.

The Antón and others model also features the organizational complexity that Commissioner Jackson wanted to get clarity about. In the model, it is not the top manager (whose proposed compensation is approved by shareholders) who makes market-level decisions. Instead, it is a market-level pricing specialist, who knows nothing about either common ownership, the top manager's incentives, or the desire of the firm's shareholders. Instead, the specialist maximizes profits market by market, taking the firm's cost as given – as in standard models of industrial organization. This feature is in fact necessary for the theory to correctly predict the wide range of facts the empirical literature has documented. To name one example, if shareholders contracted with the top manager on costs and prices, common ownership would lead to lower costs and higher margins – which is not what is observed empirically.

Whereas the empirical analysis in Antón and others identifies a corporate governance mechanism using reduced-form empirical techniques, a second, more

<sup>18</sup> *Ibid.* at Table 1

<sup>19</sup> L Summers, 'Dinner Speech' (Global Corporate Governance Colloquium, Cambridge, MA, June 2018) <https://gcbc.global/presentations/gcbc-dinner-speech-2018-lawrence-h-summers>.

recent paper by Azar and Ribeiro<sup>20</sup> offers a structural estimation of a model featuring agency conflicts that also links to product market outcomes, again using the airlines industry as a laboratory. What they find is that the ‘conduct parameter’ that identifies the extent to which managers take shareholders’ portfolio interest into account is significantly positive – but also significantly below the level one would expect without agency conflicts. Hence, the rejection of full internalization by structural models that ignore agency conflicts does not reject the presence of large anticompetitive effects; such a rejection would instead indicate a mis-specified model. What is exciting conceptually is that this is the first time that a structural model not only considers common ownership but also agency problems.

The take-away from these two papers is that the recognition of agency problems in otherwise standard models of competition under common ownership by no means undoes or puts in doubt that there are anticompetitive effects from common ownership of horizontal competitors. Instead, agency problems are a feature that either gives rise to productive inefficiencies and thus higher prices in the first place, or at least is a feature that increases the precision of estimates of how strong the competitive effects of common ownership are. Both aspects become important as we think about policy proposals in Part 2 of this paper.

The structural estimation by Azar and Ribeiro also features and shows the empirical importance of vertical common ownership links. However, the importance of this feature is perhaps best illustrated by describing a reduced-form investigation into this matter.

### 12.2.2 *How Do Vertical Common Ownership Links Affect Estimates of the Effect of Horizontal Common Ownership Links on Product Market Outcomes?*

Since the start of the asset management industry’s involvement in the debate on competitive effects of common ownership and its regulation, a central argument of their advocates has been that ignoring vertical common ownership would cause the papers to ‘lack economic logic and factual support from the real world. For instance, why would passive managers want airline prices to be higher given the air travel is a cost to nearly any other business that is owned by the index funds?’<sup>21</sup> Does that argument hold up to scrutiny?

Formal economic theories on partial vertical integration with multiple upstream and downstream firms tend to be analytically intractable, and thus offer little guidance to inform the question. However, it is possible to study the question

<sup>20</sup> J Azar and R Ribeiro, ‘Estimating Oligopoly with Shareholder Voting Models’ (2021) IESE Business School Working Paper <https://ssrn.com/abstract=3988265>.

<sup>21</sup> B Novick, ‘How Index Funds Democratize Investing’ Wall St J (9 January 2017) [www.wsj.com/articles/how-index-funds-democratize-investing-1483914571](http://www.wsj.com/articles/how-index-funds-democratize-investing-1483914571).

empirically, and a recent paper has done just that – and produced a clear answer. Azar and Vives<sup>22</sup> show that controlling for the extent to which airlines have vertical common ownership links has a negative effect on prices – but that controlling for these effects increases the positive estimate of price effects of horizontal common ownership links. Omitting a variable capturing vertical common ownership links from the horizontal-ownership regressions leads to a bias of the estimates. The finding suggests also that policies that have the effect of reducing horizontal common ownership while strengthening vertical common ownership links may be best suited to deal with the anticompetitive effects of common ownership. Some of the proposals covered in Part 2 have that feature.

Azar and Vives's contribution not only captures vertical common ownership links, but also offers a methodological alternative over the Azar, Schmalz and Tecu regressions: instead of using a modified Herfindahl-Hirschman-Index of market concentration – which includes potentially endogenous market shares – as the main explanatory variable, Azar and Vives follow Antón and others and others in the more recent literature and use the primitive of the common ownership theory, the profit weights that firm managers are presumed to put on commonly owned firms' rivals. Azar and Vives is thus also the first academic study that shows with a reduced-form methodology that market shares do not drive the results in Azar, Schmalz and Tecu's original analysis<sup>23</sup> of US airline competition under common ownership, as some have speculated.<sup>24</sup>

<sup>22</sup> J Azar and X Vives, 'Revisiting the Anticompetitive Effects of Common Ownership' (2021) IESE Business School Working Paper <https://ssrn.com/abstract=3805047>. The authors verbally connect these findings to a theoretical investigation by the same authors based on the 2018 Walras-Bowley lecture, J Azar and X Vives, 'General Equilibrium Oligopoly and Ownership Structure' (2021) 89 *Econometrica* 999–1048. The mechanism driving the results of this theory is however quite different from the internalization of interests of vertically related firms. The prediction that economy-wide common ownership can reduce prices in this theory requires that shareholders also consume all inside goods and thus internalize effects on consumption. Further, reducing the price of good *i* increases the *relative* price of goods in other industries and thus profits in other industries, as measured in this numeraire-free price system. As such, the mechanism proposed in that paper is driven by cross-sector horizontal externalities, and unrelated to a reduction double marginalization through common ownership – although the latter may drive the empirical results in the empirical paper described above.

<sup>23</sup> Azar, Schmalz and Tecu (n 1).

<sup>24</sup> J Gramlich and S Grundl, 'Estimating the Competitive Effects of Common Ownership' (19 February 2019) FEDS Working Paper No 2017–29 <https://ssrn.com/abstract=2940137> claim to have made that same methodological choice before – but their actual regressions do not in fact estimate the effect of profit weights on prices. The ICI-sponsored paper by P Kennedy and others, 'The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence' (24 July 2017) SSRN Electronic Journal, <https://ssrn.com/abstract=3008331> has previously offered one specification with profit weights; A Park and K Seo, 'Common Ownership and Product Market Competition: Evidence from the U.S. Airline Industry' (2019) 48 *Korean J Finance Stud* 617 estimate with a structural model that rules out the market-share channel that there are likely anticompetitive effects from common ownership in the U.S. airline industry; the above-discussed study by Azar and Ribeiro (n 20) offers another structural approach that also rules out a role of market shares and at the same time recognizes agency frictions.

In sum, the recognition of vertical common ownership links does not challenge the finding that horizontal common ownership links increase prices – at least in the US airlines industry as the poster child for such studies. Instead, recognition of a role of vertical common ownership links in also affecting firm behaviour strengthens the finding that common ownership of horizontal competitors increases product prices.

### 12.2.3 *Methodological Novelties*

A good part of the past five years of the literature on competitive effects of common ownership has been spent debating the relative virtues and merits of reduced-form versus structural approaches – which rely on different assumptions and are suited for different purposes. (A standard view would hold that these approaches are complementary: reduced-form approaches tend to be suited to identify causal links, whereas structural estimations are suitable to make welfare estimations and to analyse counterfactuals.) A thus-far overlooked third set of methods concerns laboratory experiments. Should there be any doubt that the variation in ownership that the empirical studies to data have interpreted to have *caused* an increase in prices is truly exogenous, these doubts can be examined in a laboratory setting. Hariskos, Königstein, and Papadopoulos<sup>25</sup> show that exogenously imposed increases in partial cross-ownership increases product prices in the laboratory, and as such, break new ground. Given their study does not feature agency problems, there is no clear distinction between cross-ownership (firms holding direct stakes in competitors) and common ownership (industry outsiders holding stakes in competing firms), but this paper nevertheless opens the door for future work using this methodology as a complement to reduced-form and structural approaches.

### 12.2.4 *Endogeneity of Portfolio Choice in the Presence of Strategic Interactions between Product Market Competitors*

The key challenge for empirical economists working on the question whether firm ownership affects firm behaviour is to assess whether observed correlations in the data likely have a causal interpretation – or if they are just that: correlations. The emphasis of industrial organization economists, as it comes to scrutinizing the correlation between common ownership and higher prices, has been to focus on the potential endogeneity of market shares in polluting such estimates. I have explained above how this concern has been addressed by recent research, both with structural methods that explicitly model that endogeneity, and with reduced-form methods that avoid the problem simply by using measures of common ownership that don't contain market shares in the first place.

<sup>25</sup> W Hariskos and others, 'Anti-Competitive Effects of Partial Cross-Ownership: Experimental Evidence' (2021) 193 *J Econ Behav Organ* 399 <https://doi.org/10.1016/j.jebo.2021.11.027>.

However, there is another source of endogeneity that is much less well understood – but plays a crucial role in understanding the likely effect and thus desirability of the various policy proposals: *it is the endogenous choice of portfolios by investors*. If investor portfolios affect both firm behaviour and market outcomes, including firm profits, asset prices and the asset market equilibrium are affected by investor portfolio choice. Of course, in turn, portfolio choice is also affected by asset prices. A model capturing these mutual dependencies did not exist in the economics literature to date. In other words, we don't know how investors choose portfolios when firms strategically interact and the ownership structure affects firm behaviour.

The empirical literature deals with this lack of theoretical understanding by finding quasi-exogenous 'shocks' to the ownership of a particular set of firms that is unlikely to be related to the product market dynamics in question. However, policy proposals can't avail themselves of such techniques to predict what the likely effect of the proposals on asset prices and asset market equilibria is going to be. Such predictions will have to be made based on theoretical considerations, as emphasized in Part 2 of this paper. As a foundation, I therefore assess where we stand in our formal understanding of this complex system.

In recent years, more than half a dozen papers have attempted to address this question.<sup>26</sup> In particular, each paper shows that strategic considerations determine whether a particular portfolio allocation is an equilibrium or not. However, there are severe limitations. The literature does not prove but appears to suggest that anything beyond duopoly settings (or otherwise extremely specific parameter) are analytically intractable. In other words, the progress in this dimension is far from offering practically relevant predictions on how new policies may change the asset market equilibrium. This negative result is useful – because it tells us that we may have to accept that we are unlikely to learn much more in this dimension in the near future, and there is no point in waiting for 'more research' before policy decisions are made. Instead, the uncertainty must be taken as a given when trading off the cost of waiting, and potentially continued harm from lessened competition and governance against the uncertain costs (or benefits!) that some of the proposed policies may bring. I will get back to this tradeoff in Part 2.

<sup>26</sup> See D Moreno and El Petrakis, 'The impact on market outcomes of the portfolio selection of large equity investors' (2022) 212 *Economics Letters* <https://e-archivo.uc3m.es/bitstream/handle/10016/33659/we2114.pdf?sequence=1&isAllowed=y>; A Piccolo and J Schneemeier, 'Ownership and Competition' (1 November 2020) SSRN Electronic Journal <https://ssrn.com/abstract=3733795>; C Hemphill and M Kahan, 'Endogenous Choice of Stakes Under Common Ownership' (2021) European Corporate Governance Institute – Finance Working Paper No 805/2021 <https://ssrn.com/abstract=3914327>; R Stenbacka and G Van Moer, 'Cross Ownership and Divestment Incentives' (2021) 201 *Econ Lett*, <https://doi.org/10.1016/j.econlet.2021.1097482>; A Bayona and others, 'Common Ownership, Corporate Control and Price Competition' (11 February 2021) SSRN Economic Journal, <https://ssrn.com/abstract=3784072>; K Papadopoulos, 'Advantageous Symmetric Cross-Ownership' (1 April 2021) SSRN Electronic Journal <https://ssrn.com/abstract=3813415>.

12.2.5 *The Gradual Lifting of Data Limitations*

Limitations on high-quality and comprehensive ownership data have been a bottleneck for the literature ever since its inception. Lifting those limitations is important for at least two reasons.

For one, studies that claim evidence of absence of competitive effects of common ownership (reviewed by Azar, Schmalz, and Tecu<sup>27</sup>) make these statements based on analyses that lack data on some of the most important and powerful investors. Such studies are run using 13F filings filed by passive institutional investors alone – but omit other blockholders, whether they are activist investors (who must file SEC 13Ds rather than 13Fs) or individual blockholders or large insiders (who file 13Gs). Such research thus attempts to explain the competitive behaviour of Facebook, Google, and Amazon, without considering the economic interests and control rights of Mark Zuckerberg, Larry Page and Sergey Brin, and Jeff Bezos. Thus, much of the variation in the measures of common ownership is missed, resulting in biased estimates.<sup>28</sup> The original Azar, Schmalz, and Tecu paper<sup>29</sup> hand collected ownership from the various SEC filings and alternative sources for that industry – however, for studies beyond a specific industry that approach is impractical. The paper on top manager incentives under common ownership by Antón and others makes qualitative progress in that dimension, by combining ownership information from 13F filings with information on 13D and 13G blockholders, while controlling in their regressions for direct effects of institutional ownership on managerial incentives. The results of this improvement in data quality are that the effects of common ownership on incentives are more than two times larger than when only 13F institutions are taken into consideration.<sup>30</sup> This result proves the point that accurate ownership data is a key ingredient in better empirical research on the question.

The second reason it is important to lift these data limitations is that it is difficult for scholars, policymakers, and lawmakers to know who owns Corporate America, and hence what precisely is the problem that needs fixing, and how big it is.<sup>31</sup> To answer that question, and to implement of any one of the policy proposals discussed in what follows, we need high-quality ownership data. Regulators have

<sup>27</sup> Azar, Schmalz, and Tecu (n 10).

<sup>28</sup> The import of this concern is difficult to ascertain because none of these critiques have made code and data available for that purpose, also on request. Azar, Schmalz, and Tecu's code and data are available since publication of the paper on the Journal of Finance website, <https://onlinelibrary.wiley.com/doi/abs/10.1111/jofi.12698>.

<sup>29</sup> Azar, Schmalz, and Tecu (n 1).

<sup>30</sup> Antón and others (n 14); compare Table 5 in 2021 version to 2022 version.

<sup>31</sup> Indeed, some policymakers were until recently under the mistaken belief that the majority of large shareholders in US airlines were not also common owners of competitors, *see* Phillips (n 12). Rock and Rubinfeld (n 6) have claimed as much in their 2017 article – yet without a factual basis an indeed in contradiction to the facts supplied by Azar, Schmalz, and Tecu (n 1).

the power to supply it, but have not to date; only one academic paper exists that makes such a resource available, as I now discuss.

### 12.3 DISCUSSION OF POLICY PROPOSALS

Legal scholars have made a number of proposals, taking at face value that there are competitive effects of common ownership and/or governance problems caused by large institutional investors, and that those problems are as widespread as the phenomenon of common ownership itself – i.e. across all firms and industries held by institutional investors. An interesting and worthwhile discussion of these proposals' strengths and weaknesses followed in recent years. What I find to be missing in the discussion is a clear and simple economic framework to organize that discussion. I aim to provide such a framework. I will then illustrate how some of the more prominent proposals fit in the framework, and which arguments and questions naturally arise that are thus far missing from the debate.

#### 12.3.1 *A Framework to Discuss Policy Proposals*

The conceptual problem that causes anticompetitive effects of common ownership is when within-industry diversification is achieved at the same level at which corporate control is exercised. This insight is easily forgotten but has a long lineage in US policy. The 1934 Senate Securities ('Pecora') Report proposes that Congress must '*prevent the diversion of these trusts from their normal channels of diversified investment to the abnormal avenues of control of industry*'; the Investment Company Act bill opines that '*the national public interest ... is adversely affected ... when investment companies [have] great size [and] excessive influence on the national economy*'.<sup>32</sup> Accordingly, the Investment Company Act of 1940 limits the fraction of any issuer's shares a fund can hold to 10% of the outstanding stock.<sup>33</sup> It was obvious even to the 'father' of index investing that this rule was meant to apply not to funds but to the level at which corporate control is exercised – in practice the fund family – and that the existing rule does not technically cover that spirit: 'But when and if our index fund gets to 10%, all we have to do is start a second one and that would be in technical compliance. There should be limits'.<sup>34</sup> By my own calculations based on scraped SEC filings, Vanguard already in 2020 held more than 10% on average in the S&P 500's companies.

<sup>32</sup> M Roe, 'Political and Legal Restraints on Ownership and Control of Public Companies' (1990) 27 *J Financ Econ* 7; US Senate Committee on Banking and Currency, *Stock Exchange Practices* (Rep No 1455 pursuant to S Res 84, 1934) [www.senate.gov/about/resources/pdf/pecora-final-report.pdf](http://www.senate.gov/about/resources/pdf/pecora-final-report.pdf).

<sup>33</sup> Investment Company Act of 1940 15 USC § 80–1 et seq.

<sup>34</sup> J Bogle, 'Bogle Sounds a Warning on Index Funds' *Wall St J* (New York, 29 November 2018) [www.wsj.com/articles/bogle-sounds-a-warning-on-index-funds-1543504551](http://www.wsj.com/articles/bogle-sounds-a-warning-on-index-funds-1543504551).

A clear understanding of what the problem is also makes clear the basic directions that all effective solutions to the competition problem must take: solutions to the competition problem need to separate the levels at which diversification is achieved and at which corporate control is exercised. This can logically happen in two principal ways: either asset managers diversify across competitors but then have to leave influencing portfolio firms to other investors, or asset managers have to limit themselves to diversifying *across* industries, and leave diversification within industries (by diversifying across asset managers) to the ultimate asset owners.

A first insight that arises from recognizing a distinction between the levels of asset manager and asset owner as in the above framework is that full diversification can be achieved at the household level even if no asset manager or fund holds more than one firm in any one industry. Therefore, there is not necessarily a tradeoff between household diversification and product market competition, as the early theoretical contributions to this literature<sup>35</sup> and some policy proposals<sup>36</sup> may have suggested. I will get back to this point in my evaluation of proposals below.

The second insight to keep in mind is that it is not possible to *independently* address the antitrust and governance problems generated by the rise of concentrated institutional ownership. For example, any intervention in governance that affects the firm's cost structure also has competitive consequences, as the Antón and others model shows. In that model, any strengthening or weakening of the governance rights of institutional investors will induce a strengthening or weakening of the implementation of competitive or anticompetitive incentives implied by their portfolio. As such, desirable proposals should not narrowly address governance mechanisms that some suspect causes common ownership to increase profit margins (there is no evidence that common ownership increases profit margins). Instead, proposals should also address the lack of incentives for good governance practices that can lead to a lessening of productive efficiency and *thus* increased product prices, reduced output, and other harms.

A tertiary goal of any proposal is, or should be, to minimize disruptions to asset markets and the asset management industry, subject to attaining the first two goals.

With light of this framework, how should we evaluate the policy proposals made by various legal scholars, considering the research that has accumulated in the past five years? I first summarize the most prominent contributions' main arguments and then proceed to analysing their likely effects.

<sup>35</sup> J Rotemberg, 'Financial Transactions Costs and Industrial Performance' (1984) Massachusetts Institute of Technology – Alfred P Sloan School of Management WP 1554–84, <https://dspace.mit.edu/bitstream/handle/1721.1/47993/financialtransacoorote.pdf>.

<sup>36</sup> Posner and others (n 6).

12.3.2 *Summary of Extant Policy Proposals*

The first policy proposal in response to Azar, Schmalz, and Tecu's paper<sup>37</sup> being circulated was contained in Elhauge's 'Horizontal Shareholding'<sup>38</sup>. The opinion advanced therein is that existing law provides sufficient power to adjudicate competition problems created by common ownership of horizontal competitors, and that this power should be used to that effect. Whereas Elhauge discussed other applicable laws as well, including the Hart-Scott-Rodino Act, the main argument is that Clayton Act Section 7 already prohibits '*any acquisition of assets that [has] the effect ... of substantially lessening competition*'.<sup>39</sup> The crux is that the Act does not prohibit a particular type of conduct of horizontal shareholders of competitors (or 'common owners'), but rather that it prohibits the asset acquisition itself, to the extent the resulting holding has anticompetitive effects. Also, no intent is required. The so-called passive investment exemption does not apply, as long as investors vote their shares.<sup>40</sup> As a result, a consequential enforcement of the law would result in a reduction of common ownership links between horizontal competitors, to the extent that they are likely to have anticompetitive effects. This idealized result from enforcement of existing law has some similarities to the intended effects of several other proposals that followed.

One of them is Posner and others<sup>41</sup>, who agree with Elhauge's legal assessment, but point to practical and administrative problems with Elhauge's proposal to enforce anticompetitive common ownership links as Section 7 violations. In particular, Posner and others note, correctly, that the extent to which one institution's holdings has anticompetitive effects depends on the holdings of other institutions. Therefore, 'institutions obeying the law at one moment could become liable simply because other institutions changed their holdings and thereby made an industry less competitive. Institutional investors would need to determine other institutions' ownership shares plus an appropriate definition of hundreds or even thousands of industries to comply with the Clayton Act. Thus, a large institutional investor acting unilaterally in the current environment cannot ensure it is not violating the Clayton Act. That is a difficult position for institutional investors, who require clarity about where they can legally invest'.<sup>42</sup> Further, there could – and perhaps

<sup>37</sup> Azar, Schmalz and Tecu (n 1).

<sup>38</sup> Elhauge (n 3).

<sup>39</sup> I omit a discussion of a potential enforcement of Hart-Scott-Rodino Act notifications, which some have remarked the law may also require for the so-called 'passive' investors, given the similarity of their engagement practices with so-called 'active' investors, see M Flaherty and R Kerber, 'US lawsuit against activist ValueAct puts mutual funds on alert' *Reuters* (London, 12 April 2016) [www.reuters.com/article/us-valueact-lawsuit-funds-idUSKCN0X92E6](http://www.reuters.com/article/us-valueact-lawsuit-funds-idUSKCN0X92E6).

<sup>40</sup> Elhauge (n 3) 1305–08.

<sup>41</sup> Posner and others (n 6).

<sup>42</sup> *Ibid.* at 9.

would – be lawsuits for each transaction in each oligopolistic industry, which seems unwieldy.<sup>43</sup> To avoid such mayhem, Posner and others propose a safe haven for institutional investors, which would exempt institutional investors from antitrust scrutiny as long as they do not hold more than 1% of the shares of more than a single effective firm in an oligopoly *or* are index funds that are unable to make discretionary trades and are entirely passive not only with respect to their portfolio choice but also their governance activities, including voting.<sup>44</sup> Hence, investors have to choose if they want to hold large stakes in competitors or influence portfolio firms. Posner and others anticipate that large institutional investors will find this safe haven sufficiently attractive to divest from all but one firm in each oligopolistic industry, and concentrate their holdings in one target firm per industry, which would have the benefit, in Posner and others' estimation, of improving investors' incentives to engage in good governance in their chosen target firms. This idea has appeal as it both promises to address both the competition and the governance challenge laid out above. It would also reduce the cost of operating an index fund, due to saving on governance costs.

Rock and Rubinfeld<sup>45</sup> disagree both with Elhauge's and Posner and others' reading of Clayton Act Section 7 and with the logic behind Posner and others' proposal of a safe haven at 1% ownership limits; they propose a safe haven for institutional investors that hold less than 15% of the issuer's stock, don't have board representation (whereas it is left unexplained what that means for an institution that votes 15% of the shares and thus very likely is pivotal in director elections), and only engage in 'normal' governance activities, including the setting of executive compensation (which itself is likely to be a problematic mechanism as per Antón and others).<sup>46</sup> Rock and Rubinfeld's reasoning is based on the assumption that passivity in corporate governance matters would protect investors from suits under Clayton Act Section 7 (which contradicts Elhauge's and Posner and others' legal assessment). Based on that legal opinion, Rock and Rubinfeld don't believe investors would choose to reduce within-industry diversification in response to PSW's safe harbour. Nor do Rock and Rubinfeld believe investors would simply not react to the PSW proposal – which would be indicated if investors truly believed, like Rock and Rubinfeld, that there is no substantive antitrust violation to be concerned about. Instead, Rock and Rubinfeld believe investors would choose to become entirely passive to protect

<sup>43</sup> Further concerns include the transactions costs, endless litigation, the risk of idiosyncratic judgments, changing patterns who competes with whom, and a risk to thus severely impair or destroy a socially desirable fund industry.

<sup>44</sup> Posner and others (n 6) 33. Frequent mischaracterizations of Posner and others present it not as a safe harbour, but as a prohibition to hold competitors, and present the proposed exemption as applying to any funds that merely don't communicate with firm executives or directors as opposed to remaining entirely passive in matters of corporate governance.

<sup>45</sup> Rock and Rubinfeld (n 6).

<sup>46</sup> *Ibid.* at 43.

themselves from Clayton Act 7 violations and avoid changing their business model of holding horizontal competitors. They believe this would lead to a worsening of corporate governance standards; they do not discuss why no other investor would respond to the power vacuum. Notwithstanding Rock and Rubinfeld's criticism of the logic of PSW's proposal, they propose a qualitatively similar rule, namely a safe harbour but with a 15% instead of 1% limit, implying that four asset managers (or individuals) could jointly control 60% of the voting shares of *all* firms, in any, every, and all industries or 7 asset managers could control 100% of all shares – and yet be exempt from antitrust scrutiny. They do not explain why this policy would have the effect of protecting consumers and competition, in addition to protecting investors from antitrust suits under present law.

Lund's<sup>47</sup> proposal is similar to Posner and others' in that she proposes to restrict the voting rights of index investors, but differs in that she does not propose a size threshold below which indexers would be allowed to engage in governance. Also, she does address index funds specifically, rather than common owners more generally, which also can – and often does – include non-indexer investors. Posner and others by contrast aim to remove anticompetitive incentives arising from all types of common owners, but *exempt* index funds that don't engage in governance activities. The idea behind Posner and others' proposal to target common ownership by all types of investors and not just index funds is that common owners can be individuals, conglomerates such as Berkshire Hathaway, and in some cases even activist hedge funds. Posner and others' idea behind exempting index funds is that the threat to sell shares can itself be used to influence firms; index funds that cannot make discretionary trades do not have that lever at their disposal. Lund's argument to target index funds per se, by contrast goes as follows. Lund points out a variety of reasons why asset managers that predominantly offer 'passive' investment products have reduced incentives to engage in governance with the aim of maximizing individual firms' value. Those reasons include lacking financial incentives, free-rider problems, and cost pressure. For these reasons, passive funds may encumber votes and thus prevent other investors with stronger incentives to govern and improve firm performance, but not use their power to that effect themselves. Further, 'even if a fund does choose to intervene, it will rationally adhere to a low-cost, one-size-fits-all approach to governance that is unlikely to be in the company's best interest'. She thus proposes that lawmakers consider restricting passive funds from voting at shareholder meetings altogether, thus leaving governance to other investors – namely, those that have incentives to be better informed and discipline management.

I have myself never made or endorsed a policy proposal, except for advocating for the collection and provision of high-quality ownership data that would allow for

<sup>47</sup> Lund (n 6).

more and higher-quality research into the problem.<sup>48</sup> To date, no such efforts have been made to my knowledge by the federal agencies to provide such a public good. Amel-Zadeh and others have since scraped and parsed the SEC's EDGAR system for ownership records and make the resulting data base freely available for academic research; it is the first and thus far only directly sourced, complete dataset on the ownership of US firms that is usable in academic research.<sup>49</sup>

### 12.3.3 *An Analysis of Extant Policy Proposals*

Elhaug's proposal to enforce existing law may first appear to be the least disruptive, by virtue of not changing the law but merely enforcing it. Further, as his proposal attacks the anticompetitive incentives implied by the holdings rather than specific governance channels, one would expect there to be no detrimental 'chilling' effect on investors' governance activities from intensified enforcement, which satisfies the second goal to some extent. However, upon inspection, the proposal may be not much less disruptive to asset markets and the asset management industry than the alternative proposals to change rules or laws: after all, a large fraction of extant institutional owners' portfolios would be affected by litigation. Abstracting away from this practical concern, the main substantive question mark with the proposal may be whether relevant judges would agree with Elhaug's reading of the Act and the burden of proof Elhaug deems necessary to prove a lessening of competition. To the extent a common ownership case under Section 7 would be difficult to win in practice, the main risk of Elhaug's proposed policy would be underenforcement, and thus an insufficient strengthening of competition – the first objective in my proposed framework. Hence, Elhaug's proposal would be least disruptive mainly to the extent it fails to satisfy the primary objective, which is restoring vigorous competition.

Regarding the second goal, one would expect improvements in governance insofar as ownership structure would change from heightened enforcement, and investors with greater incentives and ability to manage agency problems would become relatively more powerful owners. The result would be increases in productive

<sup>48</sup> M Schmalz, 'Common Ownership' (8th Hearing on Competition and Consumer Protection in the 21st Century, New York City, 6 December 2018) [www.ftc.gov/news-events/audio-video/audio/martin-schmalz-presentation-common-ownership](http://www.ftc.gov/news-events/audio-video/audio/martin-schmalz-presentation-common-ownership).

<sup>49</sup> A Amel-Zadeh, F Kasperk, and M Schmalz, 'Measuring Common Ownership: the Role of Blockholders and Insiders', *Working Paper*, 2022. Amel-Zadeh and others show that much of the variation in common ownership between S&P500 firms is driven by blockholders, whose ownership is disclosed in 13-G or 13-D filings as well as insiders who report their ownership on Forms 3, 4, and 5 with the SEC. Therefore, research using datasets based on 13-F forms alone, such as those provided by Thomson Reuters via WRDS or those by Backus, Conlon, and Sinkinson, is of limited validity, because omitting block holders and insiders leads to potentially grave bias in the econometric analysis of studies that rely on the ownership by passive investors alone. More research is needed to expand the database to firms outside the S&P500.

efficiency. As such, Elhauge's proposal seems a modest push in the right direction, in both dimensions. It has that feature in common with Posner and others' proposal.

Posner and others' concern about liability being caused by other investors' changing portfolio weights can be illustrated as follows: suppose two tech firms, Mazebook and Poodle, were 'competitors' in some meaningful sense, and suppose one individual controlled each firm via dual class share structure. Further, suppose diversified institutional investors hold voting shares in both firms but have no influence due to the presence of the controlling founders. As there is no influence by common owners, there are no anticompetitive effects from common ownership. Now, suppose one of the individuals or both sell their shares to many small investors, who don't exercise the voting rights. Suddenly, the institutional common owners are the largest investors, and their anticompetitive incentives begin to materialize, for no fault of the investors, but simply because of the absence of the formerly present controlling founders. This is the motivation to consider safe havens for investors.

In terms of evaluation, Posner and others' proposal is more attractive in some dimensions than they describe it to be, because of the first insight from my proposed framework: whereas Posner and others argue the loss of diversification benefits due to restricting portfolios to only one firm per oligopolistic industry was minimal, I have argued that the loss of theoretically possible diversification to households is zero. There is no loss of diversification to the ultimate investors.<sup>50</sup> The households would be made poorer in their identity as shareholders (whose portfolio firms' profits would drop because of firms operating in more competitive markets), but richer in their identity as consumers. Given the facts about the US wealth and consumption distribution, for the vast majority of the population – and certainly for the population as a whole – the latter effect dominates.<sup>51</sup>

Whereas the asset market disruptions of such a change and other practicalities are not discussed in detail, the appeal of this solution is that not only would it remove anticompetitive incentives from holding competitors, but it would also strengthen corporate governance, both by increasing the stake investors hold in firms and thus reducing free riding by other investors, and by removing disincentives to engage due to the externality on other firms that drives the Antón and others model. Hence, the proposal addresses both goals I have declared to be desirable above. Concerning

<sup>50</sup> As with all of the proposals discussed here, there are enormous practicalities that would need to be addressed before such policies would be enacted. In PSMW's case, it may be impossible for an asset manager the size of Vanguard to concentrate all their, say, bank holdings in a single bank, without having to take the bank private. I will abstract away from such considerations, to retain the focus on an analysis which principal directions are likely to be most desirable.

<sup>51</sup> See J Gans and others, 'Inequality and Market Concentration, When Shareholding Is More Skewed than Consumption' (2019) 35 *Oxford Rev Econ Pol* 550. The concern that institutional investors would internalize the heterogeneous preferences of ultimate shareholders for more or less competition seems remote, given informational frictions that appear to give rise already to investors with diverging interests homogeneously paying a fixed percentage of the market value of assets under management to asset managers.

the third goal, it certainly would be disruptive, but it is not clear whether more or less disruptive than a barrage of suits to the industry under existing law! Moreover, some of the feared disruptions – such as a dramatic reduction of the profitability of portfolio firms, would be a feature not a bug in this proposal, to the extent these profits are ‘excessive’ as they are illegally derived from anticompetitive incentives from common ownership, and a reflection of the social harm of reduced competition.

As a further reflection, a key element of the proposal is not to allow investors to qualify as ‘passive’ if they merely not communicate with top management: there are many other channels by which investors can influence governance and competitive outcomes. Indeed, not engaging with companies while encumbering voting rights is a mechanism that can itself cause a lessening of productive efficiency and thus cause higher product prices. Investors should have to choose between any corporate governance interventions at all – including voting – or not holding large stakes in competitors. Stated this way, the Posner and others’ proposal is not dissimilar to Lund’s proposal, whose idea mainly differs in that she proposes to outright limit index funds’ voting rights, rather than giving investors the freedom to self-assess their likely antitrust liability and choose whether they want to engage in governance or become purely passive in both meanings of the word.<sup>52</sup>

Rock and Rubinfeld’s proposal, by contrast, appears to have the effect of protecting institutional investors from antitrust liability, even if they do in fact cause a lessening of competition, up to a limit at which it is virtually assured that there would be a lessening of competition by common ownership: I am not aware of economic theories that would predict that if 100% of a firm’s shareholder base identically overlaps with the shareholder base of all competitors, that one could expect no lessening of competition. Yet, this would be explicitly covered and exempt from scrutiny under Rock and Rubinfeld’s proposal. The proposal therefore is likely to be ineffective at addressing any anticompetitive effects of common ownership, but in fact removes concerns about enforcement some institutional investors may have that engage in strategies that are likely to have anticompetitive effects.

Rock and Rubinfeld’s proposal further appears to do worse than either Elhauge’s or Posner and others’ in the second dimension. The reason may be that Rock and Rubinfeld rely on an erroneous understanding of the economic theory at the core of the common ownership problem. Rock and Rubinfeld appear to believe that active involvement in corporate governance is necessary for common ownership to bring about a lessening of competition. Their proposal holds that not-too-large investors

<sup>52</sup> Further proposed refinements of PSMW’s proposal could address concerns about being both over-inclusive and under-inclusive, spelled out by E Elhauge, ‘The Growing Problem of Horizontal Shareholding’ (June 2017) 3 *Antitrust Chronicle*. The same paper also responds to PSMW’s motivating concern about the practicability of enforcement under the Clayton Act, noting that PSMW’s proposal is itself subject to the same concern, to the extent it should be viewed as a concern; *see also* E Elhauge, ‘How Horizontal Shareholding Harms Our Economy – And Why Antitrust Law Can Fix It’ (2020) 10 *Harv Bus Law Rev* 2.

should be exempt from antitrust scrutiny as long as they pursue only ‘normal governance activities’, including setting executive compensation, which they expect would not change competitive outcomes, and hence not fall under what Clayton Act Section 7 is meant to capture. Yet, Antón and others are the last paper in a long line of economic literature that has shown that compensation can cause anticompetitive outcomes.

Recall that Rock and Rubinfeld’s proposal would protect corporate control rights of institutions that have questionable incentives to use them for the benefit of society. The incentives are doubtful because asset managers face agency problems of their own (as in Bebchuk and Hirst), because governance improvements in one firm harm other firms (as in Antón and others), because they don’t sufficiently care about individual firms (as in Lund), or because of excessive competition to reduce fees in the market for asset management product, and thus limit the resources devoted to governance.

As such, the Rock and Rubinfeld proposal achieves either of the two aims I outlined in the framework to evaluate the policy proposals. I conclude that whereas this proposal appears suitable to deal with the SEC’s concern to help investors deal with the ‘investor protection challenge of the 21st century’,<sup>53</sup> the proposal seems to have the effect of weakening existing consumer protections afforded by the Clayton Act.

Lund’s proposal to limit the voting rights of institutions at first seems like a recipe for a corporate governance catastrophe.<sup>54</sup> By my own calculations, in typical US publicly traded firms, the largest shareholder who does not also own similarly large stakes in competitors (and who should therefore be captured by a version of her proposal for the purposes of addressing the antitrust concern, whether a passive fund or not) tends to rank above the top 50 and tends to hold less than 1% of the cash flow rights. Giving this investor a disproportionate share of the control rights would dramatically misalign cash flow and control rights, and thus lead to the definition of a corporate governance problem.

However, this thinking overlooks the asset market’s equilibrium response. Whereas an analytic solution and precise prediction for this response remains elusive to the researchers working on the question, it is clear that some qualified investors interested would be attracted to purchase the shares of a firm in which control or significant influence can be bought by acquiring less than 1% of the outstanding stock. Indeed, the implementation of the proposal might trigger a revival of activist shareholders who in recent years have increasingly concentrated on campaigns that are agreeable to the big common owners.<sup>55</sup>

<sup>53</sup> Jackson (n 5).

<sup>54</sup> Lund (n 6).

<sup>55</sup> For a case study on how common owners can determine the outcome of an activist campaign and thus change competitive outcomes, see M Schmalz, ‘How passive funds prevent competition’ (*View From Oxford*, 15 May 2015) <https://viewfromoxford.com/how-passive-funds-prevent-competition>.

In an ironic twist, the outcome of this endogenous reallocation of cash flow and control rights may lead to a similar outcome as the one Posner and others' proposal aims for. In the re-allocated equilibrium, there exist fully diversified investors, but they don't engage in governance; the only investors that engage in governance are those that have concentrated stakes in the target firm. The same benefits in terms of jointly improving competition and governance would result.

Both proposals also have in common that index funds could implement the proposals without any disruption to their business model, other than stopping their costly governance activities, leading to a further cost reduction for ultimate household investors, as well as a reduction in the concentration of corporate control.

The above discussion aims to organize the proposals along the principal directions that matter. The proposals differ in many other details, but which can be iterated and improved upon. For example, Lund's proposal to prevent index funds from voting does not capture other common owners and thus would be under-inclusive compared to Posner and others', but this feature could be adjusted to avoid such under-inclusion. A discussion of such details is beyond the scope of this paper, so as to focus attention to whether the principal direction of travel appears suitable to achieve the main goals of the policies.

In sum, the proposals that would actually address the issue – Elhauge's, Posner and others', and Lund's – differ substantially in their methods, but are essentially similar in that they all aim for the same, desirable outcome: a separation of diversification and influence over portfolio firms. My contribution is not to judge which of those means are most appropriate, politically feasible, or realistic, but to enable readers to see the commonalities and the cost and benefits from an economic perspective.

There is no doubt that each one of these proposals would lead to a substantial reorganization of asset management and asset markets, which would be disruptive, which many appear to view as per se undesirable. On the other hand, the counterfactual to implementing a version of these proposals is to allow for no less fundamental changes to occur, if incrementally day by day. Namely, it would amount to letting an unprecedented concentration of control over industry to grow ad infinitum and remain virtually unchecked, which would be at odds not only with economic theories of competitive markets but American political ideals as well.

It hence appears increasingly likely that, earlier or later, depending on the political climate, something will be done. 'Recognising this potential issue further down the line, BlackRock has taken an active step in allaying concerns by offering asset owners in 40% of its \$4.8trn equity index funds<sup>56</sup> the opportunity to vote directly with companies, instead of the firm partaking itself.<sup>57</sup> In other words, BlackRock

<sup>56</sup> T Eckett, 'BlackRock to offer voting powers to index investors' (ETF stream, 8 October 2021) <https://etfstream.com/news/blackrock-to-offer-voting-powers-to-index-investors/>.

<sup>57</sup> T Eckett, 'Common ownership is "defining battleground" for ETF industry over next decade' (ETF Stream, 21 December 2021) <https://etfstream.com/features/common-ownership-is-defining-battleground-for-etf-industry-over-next-decade>.

implemented a version of the Posner and others/Lund proposal so as to forestall regulation. This appears to be substantively desirable at first glance. However, ‘While this goes some way in addressing the issue in wider indexing, the problem will continue in the ETF space where there is less transparency on who owns the ETFs due to the fact they trade on the secondary market’.<sup>58</sup> In other words, it remains unclear whether this move also obscures the picture of who controls Corporate America, thus disabling further research on the matter, and reemphasizing my call for more complete and correct ownership data to be made available. On second thought, it is also substantively undesirable, first because the move fails to separate the levels at which corporate control is exercised and the level at which diversification is achieved. And if the practice achieved such separation by ultimate shareholders not voting their shares, we would go back to the old Bearle and Means problem of rationally apathetic shareholders who fail to control management. Therefore, a solution in which blockholders exist but in which these blockholders don’t hold competitors and have strong incentives to monitor management is more desirable along all key dimensions.

#### 12.4 CONCLUSION

As this review showed, essentially all dimensions regulators have viewed as roadblocks to regulation have been addressed by recent research: we are assured the measured correlations between common ownership and higher product prices are most likely to have a causal interpretation and that they are, in particular, not driven by endogenous market shares. We know realistic mechanisms exist, and that agency conflicts are most likely a key driver of the empirical facts the literature has uncovered. Similarly, organizational complexities are a feature of models that can make nuanced predictions that are verified in the data. When vertical links are considered, the measured effects of common ownership on prices get stronger. The same is true when more complete and more accurate ownership data are used.

Which of the proposals should be implemented? The bottom line of this paper is that this is not a question that can be answered with purely economic analysis. As this review illustrated, economic research has made progress – but not nearly enough to be able to fully predict the effect of policy proposals that aim to fundamentally change the asset market equilibrium, and hence macroeconomic performance as well. Rather than a question that can and should be decided by economic technocrats, a broader question is whether we want an economic system featuring a ‘Problem of Twelve’<sup>59</sup> in which a very small number of players effectively controls large swathes of American industry. In the past, politicians, such as Pecora, saw no

<sup>58</sup> *Ibid.*

<sup>59</sup> J Coates, ‘The Future of Corporate Governance Part I: The Problem of Twelve’ (2018) Harvard Public Law Working Paper No 19-07, <https://corpgov.law.harvard.edu/wp-content/uploads/2019/11/John-Coates.pdf>.

need for structural estimates of competitive effects across all industries before taking action. Instead, it was clear to them that increasingly centralized control over business was not conducive to a thriving capitalist economy. Whether the resulting laws were overly restrictive (including the 10% limits for single funds) appears to be more a question of political convictions and personal incentives than rigorous economic analysis. A further concern with calls for more research is that when we insist on having ‘quasi-experimental’ evidence to evaluate whether a given policy is good, we are limiting the scope of analysis and allowable policies to those we have tried before. This restriction is obviously self-defeating for a phenomenon that has not occurred previously. In other words, I believe that we are at risk of relying on economic analyses that miss the forest for the trees. The danger is that economists can have the effect of hindering regulation by pointing to uncertainties, while omitting the fact that anticompetitive harm continues, at ever increasing scale, while the debate continues. In sum, I positively view it at this stage as determined rather by political processes than further economic analysis – and to the extent these political processes reflect the interests of ordinary citizens I normatively agree with that notion to some extent. The unarguable part of the debate appears to me that transparency on who controls corporate America should be fostered. The only grounds to obscure the facts to me appear to be a desire to deal with the ‘investor-protection challenge’ of the twenty-first century rather than with a concern about competition and governance.