

Ownership illusions: When ownership really matters for economic analysis

Cameron K. Murray¹ [University of Sydney, Australia]

Copyright: Cameron K. Murray, 2023

You may post comments on this paper at

<http://rwer.wordpress.com/comments-on-rwer-issue-no-105/>

Abstract:

A common unit of economic analysis is the firm. Firm owners are assumed to be decision makers seeking to maximise the value of the flow of future profits. However, ownership of firms does not map neatly to individuals who have independent incentives.

We show how explicitly examining ownership structures can change subsequent economic analysis. Such situations are referred to as *ownership illusions*.

In competition policy, the boundary of a firm and hence its incentives are blurred by firm cross-ownership, leading to questions around exactly how the incentive-driven process of competition is understood.

When assessing the economic performance of privately or government owned businesses, the capital value of ownership is often ignored when in public ownership but is a primary metric of success when private ownership. This is the result of an ownership illusion.

In retirement income policy, “pre-funded” systems rely on ownership of financial assets. The capital value of those assets is thought to represent the amount of future cashflows that can be supported. However, in “pay-as-you-go” systems, there is not comparable metric of the value of future cashflows in the system because there are no priced ownership rights for future age pensions.

In housing policy, it is widely assumed that competition amongst property owners can push down prices. However, by showing that the property system is a monopoly owned in a “location franchise” model that is similar to ownership of company shares, the validity of assumptions about competitive behaviour is brought into question.

Identifying this class of problems in economic reasoning can help refine our economic understanding and foster more consistency in future analysis.

Keywords: ownership networks, competition, privatisation, housing

JEL Codes: B4, D01, P14, P48

Introduction

The economic discipline suffers from many *ownership illusions*. Ownership illusions describe situations where common assumptions about ownership characteristics lead to economic analysis that is fundamentally different, or contradictory, to when actual patterns of ownership are acknowledged and appropriately valued. For example, when two firms are owned by another firm, this is usually factored into the analysis by treating all three firms as a single ownership unit for subsequent analysis. There is no illusion in this case. However, when many firms are owned in part by the same small group of

¹ Henry Halloran Trust, The University of Sydney <https://www.sydney.edu.au/henry-halloran-trust/>

investors, this broader cross-ownership network is generally ignored in the analysis of market behaviour.

One consequence of ownership illusions is that the value of asset ownership often informs subsequent economic analysis in an ad hoc and inconsistent way. For example, the value from owning departmental services is not usually recorded in public budgets as an asset. The value of owning the right to operate the land titles system², or the driver's licence and registration system³, or public parks, is ignored. But if that public service had a different private owner, the capital value of the ownership of that business would be the paramount economic concern. Ignoring the value of ownership when owned publicly, but not privately, leads to illusions that affect subsequent economic analysis and ultimately political decisions.

Ownership illusions are closely related to the "ritual of capitalisation" as understood by the Capital as Power (CasP) approach to economic analysis (Fix, 2022). Capitalisation is the process of putting a number on the value of owning property rights. The ritual nature of this process also extends to the choice when to apply capitalisation, which usually occurs under certain ownership situations, where it is a prized metric of economic evaluation, but not others, where it is ignored. The right to a public pension could be capitalised. It has a market value, that could be discovered by issuing "pension bonds" that grant the right to this future income stream and selling them on global markets. But rituals mean this right to a future benefit is not valued, even if the cost government of providing this future benefit often is capitalised when considering the "economic burden" of future public pensions.

In this paper we note how ownership illusions exist in the areas of 1) competition policy, 2) public services and privatisation, 3) retirement income systems, and 4) housing policy. In each area, we visualise ownership patterns with directed networks. This approach is similar to conventions popularised by the Open Ownership not-for-profit organisation to visualise beneficial ownership relation (Open Ownership, 2022). We do not claim that any of the ideas regarding the importance of ownership patterns to economic analysis is completely original. In fact, we draw on the work of many others. What we contribute is a way to classify these errors in economic reasoning within a coherent umbrella concept. Ensuring economic analysis is free from ownership illusions requires first asking the questions who owns what, and what is the value of those ownership rights. Clarifying ownership structures and their value can help guide further research and analysis in a coherent way.

Competition policy

Competition (antitrust) policy relies on simplified models of market dynamics to help inform policy choices intended to foster desirable outcomes of lower prices and higher output. A fundamental assumption in such economic models is that there are incentives for each firm in a market to deviate from the cooperative monopoly equilibrium and undercut each other on price, thereby increasing their own supply to compete down economic profits to zero amongst all firms in the market.

² Privatising land titles offices has been a recent trend in Australia. The state of New South Wales sold a 35-year lease over its land titles office for AUD\$2.6 billion in 2017 (NSW Parliament, 2017). The state of Victoria sold theirs in 2018 for AUD\$2.9 billion (Willingham, 2018).

³ In 2022, Victoria sold 40-year ownership rights to its VicRoads licence and registration service department for AUD\$7.9 billion, though exactly which ownership rights are held privately is unclear (VicRoads, 2022).

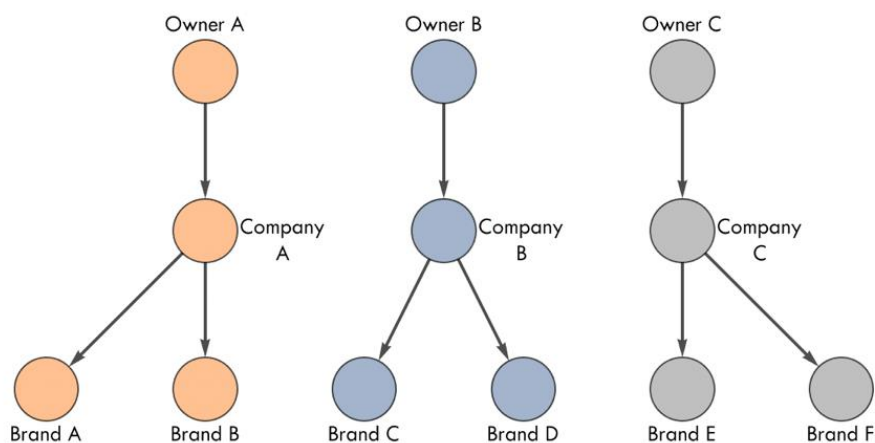
Competition policy focusses primarily on the ensuring there exists a range of potential competitors in a market though its actions of prohibiting company mergers and acquisitions, or even forcing demergers or break ups.⁴

But how exactly is a potential competitor defined? Surely a firm is defined by its ownership. Only firm owners have an incentive to compete against one another to increase profits, as they are the ones who have a claim on these profits. Employees generally do not.⁵

Direct ownership of one firm by another is generally considered to be important for determining how the boundary of a firm is defined for the purpose of understanding competitive incentives. Economists rightly realise that companies or brands that are subsidiaries of another corporate owner will not compete in a way that would undercut collective returns. However, the cross-ownership by a large group of investors of small parts of many firms is usually ignored, or in some cases assumed to be irrelevant to the process of competition (Schwalbe, 2018). Yet the past decade has seen a rise in passive investment and cross-ownership of companies, and growing awareness of the importance of cross-ownership to the competitive incentives of firms (Fichtner et. al, 2017). In 2011, Vitali et. al (2011) analysed the cross-ownership network of transnational corporations and found that the connected component of the ownership network of over 30 million entities comprised three quarters of all entities, and 94.2% of the revenue of all the entities, with companies in the more tightly connect core having on average 20 ownership ties to other firms.

We here demonstrate the nature of this ownership illusion. Figure 3 illustrates the standard way of defining firm boundaries that acknowledges direct ownership of firms, or brands, by another firm, but at the top level assumes a single owner on the financial side. Thus, these six brands would not be considered as independent potential competitors. Instead, each of the three companies would be, and hence this market would be analysed assuming three potential competitors.

Figure 3: Ownership structures that are acknowledged when defining potential competitors

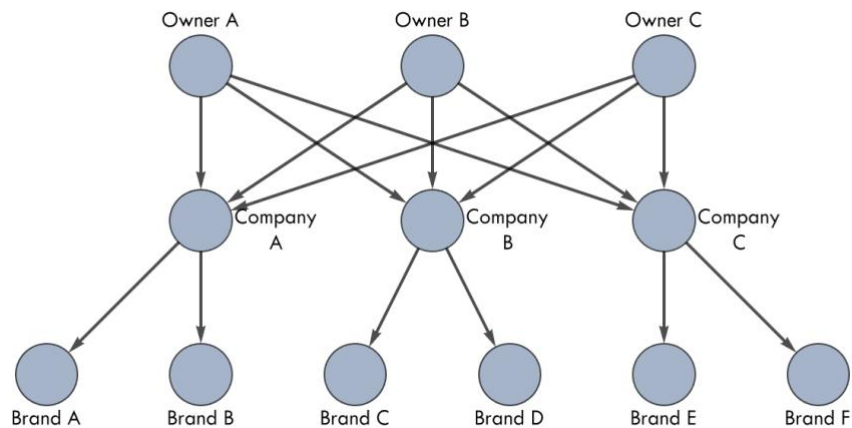


⁴ See for example Blair and Kaserman's (2009) treatment of antitrust economic rationale.

⁵ There is a large and growing literature on the "principal-agent problem", whereby an agent of another person, the principal, has a personal incentive that conflicts with the interests of the principal. This is common in company structures where employees may have incentives that do not align with owners. However, for the purposes here, it is worth acknowledging that employees who can make claims on all net revenues of a company prior to giving profits to owners, such as through pay rises or bonuses, may create incentives for profit-maximising that is internal to each company and independent of the structure of ownership.

However, a common outcome is that represented in Figure 4, whereby multiple owners each own minority shares of the three companies. Here there are no detached ownership units in the network with independent incentives to compete. Instead, the overarching incentive of all owners is to maximise the collective economic gains from total network of firms and brands, which is counter to standard assumptions about the process of economic competition being driven by profit-seeking independent and uncoordinated owners.

Figure 4: Broad cross-ownership of firms in a market where defining potential competitors is not clear



We are not the first to note that breaking the ownership illusion can change the subsequent economic analysis of the process of competition and competition policy (Fichtner et. al., 2017). This issue is attracting the attention of competition regulators and economic theorists (unlike, for example, the ownership illusion in property and housing policy). Indeed, passive cross-ownership is now also the subject of experimental tests on competitive outcomes (Hariskos et. al., 2022). However, the implications are yet to be broadly incorporated into the mainstream debates about competition amongst the broader economics, law and politics disciplines.

One implication of this ownership illusion concerns the economic concept of competition itself. If cross-ownership does not affect production choices of firms, then the popular economic theory of profit-driven competition seems inaccurate or flawed. It is surely not about independent incentives regarding the choice of output quantity and price that mean competitive markets deviate from the monopoly outcome.

Perhaps coordinating incentives relies on operational control more than ownership. A rise in interlocking company directorships has occurred alongside the rise of cross-ownership (Heemskerk, 2013). Is it the control exerted via these formal corporate positions that is need for cartel-like coordination to occur? Would interlocking directors have the same collusive incentives without cross-ownership? These are questions that need further examination.

Alternatively, the notion of competition being about output and price decisions may not the correct arena of competition. It is known that if individual firms use trial-and-error experimentation about their price and output decisions, a single market with many firms can converge to the monopoly outcomes without any explicit cooperation if there is no free entry (Huck et. al., 2004). If many firms producing the monopoly output through trial and error is a common, then this leads to deeper questions about the value of multiple firms or multiple ownership structures may be of limited relevance compared to other elements of competition like free entry to a market.

A second implication concerns the policy environment. Regardless of how the theoretical understanding of competition evolves in an environment of broad cross-ownership, secrecy of ownership networks is likely to inhibit progress in understanding the economic implications of this ownership illusion. In most countries, a complete mapping of beneficial company ownership is either impossible, or secret, and additional ownership layers are often being added to the network to conceal these true ownership relationships. If progress is to be made on understanding firm behaviour and competition under well-connected ownership structures, observing beneficial ownership structures is a first step towards this goal.

Our view here is generally consistent with Schwalbe (2018) who notes that the competition implications of firm cross-ownership, or what we call an ownership illusion, are not yet properly understood in terms of both economic theory and competition law. We hope to further these discussions by showing how this is one of many types of ownership illusion that occur in economic analysis.

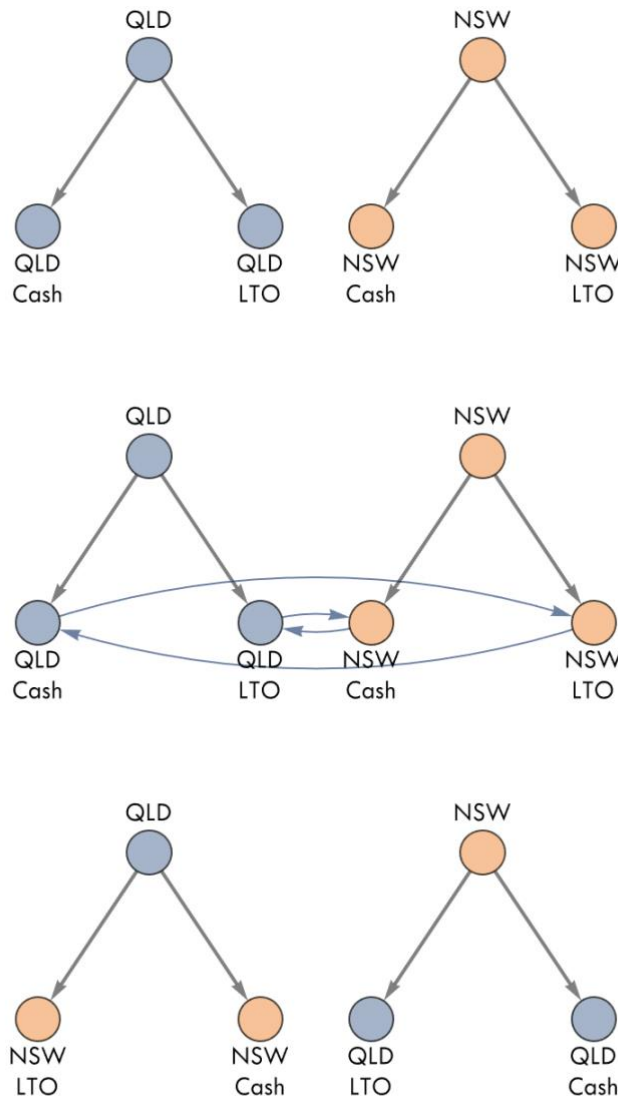
Public business ownership

Selling government businesses is commonly thought to generate additional cash revenue for general budgetary spending. However, it is also often thought, by many of the same people, that governments buying businesses in sovereign wealth funds, can make a risk margin over cash from owning those assets and hence improve the budget over the long term because of differential returns.

How can it be that selling a business for cash improves the budget, but also the reverse trade of buying a business with cash has the same beneficial budgetary effect?

The contradiction is due to another ownership illusion. Governments do not record accurate balance sheets, and like the retirement income illusion we will investigate later, the capitalised value of general businesses operations of government are not estimated and recorded. However, when the business is held in a sovereign wealth fund or other such financial entity, its capitalised market value is regularly estimated and recorded as an asset.

Figure 5: Ownership change with privatisation and public investment funds



An example can show the contradictory outcomes from this illusion. The Australian states of New South Wales and Victoria (and South Australia) have privatised their land titles office (LTO) business in recent years for AUD\$2.6 billion and AUD\$2.7 billion respectively (NSW Parliament, 2017; Willingham, 2018). The LTO business manages the property titles system and charges fees to users to record property sales and to access those records, generating a cash surplus. Selling these LTO businesses swapped ownership of a non-cash asset in the form of business equity for ownership of a cash asset.

Both states also run firm investment funds that invest in, amongst other things, company ownership in the form of direct ownership or equity shares.⁶ It is possible that each state could sell their land titles office to the sovereign wealth fund of the other state. In this scenario, each State will believe they are better off economically, even though the ownership swap makes no difference to their combined revenue or costs. Figure 5 shows the ownership structure before such a swap, where each state owns

⁶ See for example the Victoria Future Fund <https://www.budget.vic.gov.au/victorian-future-fund> and the NSW Generations Fund <https://www.treasury.nsw.gov.au/documents/nsw-generations-fund-annual-report-2020-21>

cash and its land titles office (LTO) business. It also shows the two ownership swaps. From one perspective, cash assets are traded for the LTO of the other state to put in an investment fund. Which is good. From the other perspective, there is the privatisation of a public LTO through the sale to the other state for cash. Which is also good. These are merely the opposite ways of seeing the same ownership transaction. The only reason they can both apparently make sense is because of an ownership illusion.

While much of the economic analysis of privatisation makes clear that sale price from selling public businesses does not directly create budgetary gains, since the economic gains come in the form of efficiency improvements due to competition, it is still often implied to be an additional proceed or revenue (e.g. see Kikeri and Nellis, 2004).

What is overlooked is that competition can be created in a market without necessarily changing ownership of public businesses. Norway's oil market shows that it is possible to have public and private firms compete, and for public investment funds to even buy partial ownership of private firms in the same market. In much of the world, private firms compete with publicly owned firms when it comes to schools and hospitals.

Like the ownership illusion in competition policy, highlighting the ownership illusion in public business ownership focusses attention on the aspects of the issue that are economically important, while helping to reveal contradictions of economic logic.

Retirement income policy

Another ownership illusion arises in the economic analysis of retirement income, or pension, systems. Increasingly, these systems rely on ownership of financial assets to "pre-fund" the incomes of retirees. Generally, these systems rely on compulsory savings that are used to purchase assets in range of markets, like domestic and international listed company shares, company and government bonds, and cash.

In some countries, the value of assets in these pre-funded retirement systems is a far higher than their annual value of new production, with Netherlands for example having retirement funds valued at over 200% of GDP in 2021, while Canada, Australia, Switzerland and the United Kingdom all have pre-funded pension systems holding assets valued over 100% of GDP (OECD, 2020).

The alternative retirement income system is known as "pay as you go", whereby a country's Treasury pays pensions from its account, with the government budget balance at the time being the net outcome of total spending and tax decisions.

However, the idea that a compulsory saving system "pre-funds" retiree spending, whereas a "pay-as-you-go" system does not, is another ownership illusion. The questions of who owns what, and what is the value of those ownership rights, helps illuminate the issue.

First, consider what the value of a financial asset in these "pre-funded" pension accounts represents in an economic sense. That value represents what someone is willing to pay to buy the future stream of income that asset ownership grants. It is the future stream of income that is real in the economic sense.

The value of a house, for example, comes from how much future occupancy it provides. But that occupancy is also priced during the period it is provided, in the form of rent. The fact that this future

value can be represented as a lump sum today is the result of capitalisation., or what the CasP approach would call the *capitalisation ritual*. The same is true of the value of company shares or government bonds. Those values merely represent the best guess of a seller and a buyer of the capitalised value of the future real economic payoffs.

An economically consistent approach to comparing the two retirement systems must either compare capitalised values of each system, or ongoing retirement payments from each system.

But what is the capitalised market value of future taxes, bond and seigniorage that fund “pay-as-you-go” pension systems? It simply does not exist because of an ownership illusion.

Take the author’s home country of Australia as an example. The market value of assets in compulsory retirement savings accounts is AUD\$3 trillion (APRA, 2022) This was down 20% during the first half of 2022, demonstrating the guesswork involved in the capitalisation ritual. This value is thought to be what is relied upon to pay for future retirement incomes, but currently only around AUD\$40 billion is paid to retirees from the system as income each year (APRA, 2022).

Alongside that “pre-funded” part of the total retirement system is a “pay-as-you-go” age pension. In 2021, the age pension was about 9% of the \$600 billion in overall taxes raised in Australia, or AUD\$55 billion per year (ABS, 2022).

To see the ownership illusion, consider that the right to generate \$55 billion per year in real economic payoffs could be converted to an asset by creating an ownership structure. The resulting financial instrument of ownership could be tied to future tax revenue. For example, a tradeable financial instrument that reflects a one billionth share of each year’s future Australian tax revenue, payable at the end of the tax year, could be sold. The capital value of owning the right to future taxes would just be a matter of multiplying the market value of these instruments by one billion.

We could call these financial instruments *pension bonds* and sell them in a global market as an alternative to taxation, just like pre-funded systems but centred on this new asset ownership class.

An indicative value of the invisible right to tax and fund a retirement system can be gleaned by looking at the capitalisation rate of other asset related to government funding, like Treasury bonds. Yields (the inverse of the rate of capitalisation) on Treasury bonds are between 3% and 4% (CITE). Applying these yields to the \$55 billion cash flow from taxes each years gives a capitalised value of between \$1.2 trillion to \$1.6 trillion.

Without the ownership illusion, the “pay-as-you-go” system seems very well funded.

This logic can be taken further. Instead of looking at only the retirement income payments, total government revenue can be capitalised to estimate a present value of the right to tax the Australian economy, which at the rates of 3% and 4% are \$20 trillion to \$15 trillion respectively. For perspective, the market value of all residential property in Australia peaked in 2022 at \$10 trillion.

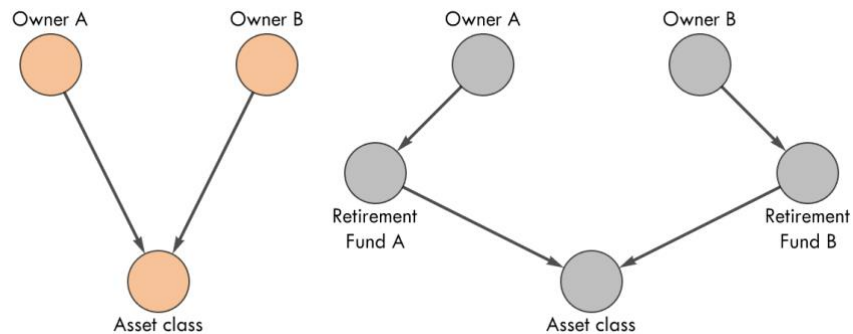
A second part of the ownership illusion in retirement income systems is that the value of financial assets in “pre-funded” systems often merely represents an ownership rearrangement.

When a “pre-funded” retirement income system “saves” by buying assets, it usually buys those assets from the current owner rather than investing in new buildings and additional real capital assets. Nothing

happens in this case except that ownership is swapped from outside the retirement system to inside it. Figure 6 illustrates the change in the ownership network when this occurs.

On the left is the direct ownership by individuals of an asset class, like listed company shares, government bonds, or property. Each owner then sells some of their assets to their retirement fund. Nothing changes about the asset class. Only the beneficial ownership structure changes to insert a retirement fund intermediary.

Figure 6: "Pre-funded" retirement system as a change in ownership accounting



Hence, comparing the value of a “pre-funded” retirement system of the value of the share market, or the property market, involves substantial double-counting. For example, in Australia, estimates suggest that 37% of the publicly traded share market is owned in superannuation (compulsory retirement savings) accounts (Myer, 2021).

The only way that a “pre-funded” retirement system increases the stock of real capital assets and hence output in the economy is if it creates conditions that lead to more spending on new capital equipment—like building and infrastructure construction or machinery and equipment—than otherwise (i.e. it does not crowd out other ways of financing this spending).

If one’s view is that spending on new capital is demand-driven, then it is likely that reducing the circulation of spending in the real economy through forced savings decreases aggregate new capital investment. Even if this outcome of higher new capital spending occurs at all, it must be a relatively minor part of the system.

Overall, it is not clear whether our economic notions of “pre-funded” or “pay-as-you-go” make logical sense when ownership illusions are clarified. Some have argued that these illusions are the result of power struggles over the ownership, allocation, and control of economic assets (Kolasi, 2022). To conceal this power struggle, economic stories and analysis that contain ownership illusions are beneficial to promote. This is certainly consistent with the view here, though it is hoped that there is still some demand for coherent economic analysis.

Housing policy

A common argument in housing policy is that planning regulations limit competition between property owners to supply new housing. Absent these regulations, it is assumed that property owners would compete in a way to undercut each other on the price of new homes. However, this argument relies on an ownership illusion.

The property titles system is a register of the ownership structure for geographic space within a jurisdiction. Just like no firm can dig out the coal or iron ore reserves owned by another, because they have a monopoly property right to those minerals, no firm can make a claim to owning a location that is already claimed in the property titles system.

There can also be no competing property titles system. There cannot be multiple claims on the same location.

To see this ownership illusion, imagine that one individual was the registered owner all property titles in the system. They would clearly be a monopolist. Anyone looking to occupy a location would have to rent from that single monopolist landlord and would have no options to occupy a location outside of the system.

The relevant housing policy question is whether a different pattern of ownership of the property titles system increases competition incentives and hence reduces property prices and increases the quantity of new housing supplied.

One way to change the ownership pattern would be to divide this individual's ownership of all the property titles using a share registry, where each owner gets a fixed percentage ownership of all property in the titles system. This division would not change the fundamental nature of the owner as monopolist, regardless of any subsequent changes to the distribution of ownership of those shares.

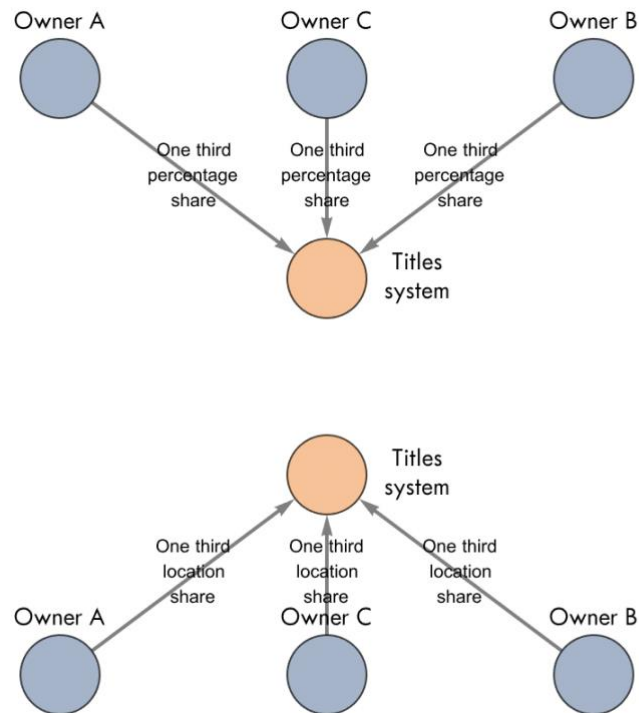
But there is another way to divide up ownership into portions, using location shares. Each owner gets a geographical portion the property in the titles system, with each part defined by cadastral mapping.

This second way of dividing up ownership of property in the titles system is like a franchise model. It is no surprise that private property ownership was historically called enfranchisement, as it was buying a share of the property system and being free from obligations to a (land)lord (and often associated with the right to vote). Today, franchise models are a way of dividing up ownership shares of larger organisations, like fast food chains, where ownership is linked to a single fixed physical part of a larger organisation at a specific location.

That property owners could in principle agree to change the structure of ownership from percentage shares to location shares (or vice-versa) shows that the pattern of ownership is not a key factor in determining competition, and hence prices, in the property market.

We can see the logic of this ownership illusion in Figure 3. At the top it shows a simple case where multiple owners have a one-third percentage share of all property in the titles system. This single connected ownership unit is monopoly by any standard definition.

Figure 7: Multiple ownership of the land titles system via percentage shares and locations shares



Now imagine that the owners decide to change the structure so that instead of taking a one-third share by value, they take a one-third share but allocated ownership by locations. They vote to swap all their one-third stakes of all property for ownership of an area equal to one third the value, which we see at the bottom of Figure 5.

If you believe the argument that property markets can be price competitive when there are multiple different owners, this should result in a dramatic reduction in prices and rents and a huge burst of new housing construction as each owner shifts from coordinating as a monopolist to undercutting each other as an independent competitor.

However, it is not clear that the new ownership structure is competitive. The property titles system of ownership over locations still exists and the same owners still own the same share of its value.

Pointing out the ownership illusion in housing policy helps to focus the economic debates about price competition in property markets, particularly the role of regulations in enabling or curtailing it. If the property titles system is a monopoly, then the pattern of ownership has little bearing on the incentives for price competition. Hence, changing the number of potential property owners who can build housing may not have much effect on the overall monopoly output of housing.

The only argument that supports the idea that a change in land ownership from percentage shares to location shares increases competition and reduces prices rests on the idea of coordination. In the initial situation, where each person owns a percentage share of all locations, they can coordinate with others because of an overarching organisational structure. In the latter situation, where each person owns a single location share, they are thought to have an incentive to slightly under-price their neighbour at each opportunity, and as that process iterates, prices for access to locations fall.

Like competition policy, this process relies on miscoordination of discrete ownership units. But the single property titles system retains the coordination role in both situations. The property system is a monopoly, but with many part owners.

What makes this case different from the general case of cross-ownership is that there is never free entry. There is always a single monopoly property titles system.

Conclusions

Economic analysis often relies on understanding the incentives of owners of firms, financial assets, and property. Yet often it is the case that explicitly examining ownership structures changes subsequent economic analysis. We call this class of problem *ownership illusions*.

In policy areas from competition, to retirement, to public businesses, to housing, a closer look at the structure of ownership, and the value of that ownership, reveals that many popular economic positions are contradictory when complete ownership accounting is considered.

While we do not offer prescriptions about how to respond to ownership illusions, acknowledging this class of problem in economic analysis helps highlight where inconsistencies in reasoning occur, and suggests further avenues for research that retain consistency in reasoning.

References

- ABS. 2022. Government Finance Statistics. April 2022. Australian Bureau of Statistics. <https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release>
- APRA. 2022. Quarterly superannuation performance statistics highlights. June 2022. Australian Prudential Regulation Authority <https://www.apra.gov.au/sites/default/files/2022-08/Quarterly%20superannuation%20performance%20statistics%20highlights%20June%202022.pdf>
- Blair, R.D. and Kaserman, D.L. 2009. *Antitrust Economics*. Oxford University Press. New York.
- Fichtner, J., Heemskerk, E.M. and Garcia-Bernardo, J., 2017. Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk. *Business and Politics*, 19(2), pp.298-326 <https://www.cambridge.org/core/journals/business-and-politics/article/hidden-power-of-the-big-three-passive-index-funds-reconcentration-of-corporate-ownership-and-new-financial-isk/30AD689509AAD62F5B677E916C28C4B6>
- Fix, B. (2021). The ritual of capitalization. *Real World Economics Review*. 97. pp78-95. <http://www.paecon.net/PAERReview/issue97/Fix97.pdf>
- Hariskos, W., Königstein, M. and Papadopoulos, K.G., 2022. Anti-competitive effects of partial cross-ownership: Experimental evidence. *Journal of Economic Behavior & Organization*, 193, pp.399-409.
- Heemskerk, E.M., 2013. The rise of the European corporate elite: evidence from the network of interlocking directorates in 2005 and 2010. *Economy and Society*, 42(1), pp.74-101.
- Huck, S., Normann, H.T. and Oechssler, J., 2004. Through trial and error to collusion. *International Economic Review*, 45(1), pp.205-224. <https://doi.org/10.1111/j.1468-2354.2004.00122.x>

- Kikeri, S. and Nellis, J., 2004. An assessment of privatization. *The World Bank Research Observer*, 19(1), pp.87-118. <https://doi.org/10.1093/wbro/lkh014>
- Kolasi, Erald. 2022. 'Pensions and Power: The Political and Market Dynamics of Public Pension Plans'. *Review of Capital as Power*, Vol. 2, No. 2, pp. 46–80. <https://capitalaspower.com/2022/06/kolasi-pensions-and-power-the-political-and-market-dynamics-of-public-pension-plans/>
- Mouré, Chris. 2021. 'Soft-wars: A Capital-as-Power Analysis of Google's Differential Power Trajectory'. *Review of Capital as Power*, Vol. 2, No. 1, pp. 71–90. <https://capitalaspower.com/2021/10/moure-soft-wars-a-capital-as-power-analysis-of-googles-differential-power-trajectory/>
- Myer, R. 2021. Superannuation funds' stake in ASX slows after government calls inquiry. *The New Daily*. 13 August 2021. <https://thenewdaily.com.au/finance/consumer/2022/10/20/cyber-security-medibank-hack/>
- NSW Parliament. 2017. Issues backgrounder. Number 2, June 2017. NSW Parliamentary Research Service. <https://www.parliament.nsw.gov.au/researchpapers/Documents/Privatisation%20in%20NSW%20-%20a%20timeline%20and%20key%20sources.pdf>
- OECD, 2022. Global Pension Statistics. Funded Pension Indicators. Assets as a share of GDP. https://stats.oecd.org/Index.aspx?DatasetCode=PNNI_NEW also <https://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-Preliminary-2021-Data-on-Pension-Funds.pdf>
- Open Ownership. 2022. Beneficial Ownership Visualisation System. <https://www.openownership.org/en/publications/beneficial-ownership-visualisation-system/core-rules/>
- NSW Parliament. 2017. Issues Background. Number 2, June 2017. NSW Parliamentary Research Service. <https://www.parliament.nsw.gov.au/researchpapers/Documents/Privatisation%20in%20NSW%20-%20a%20timeline%20and%20key%20sources.pdf>
- Schwalbe, U., 2018. Common Ownership and Competition—The Current State of the Debate. *Journal of European Competition Law & Practice*, 9(9), pp.596-603.
- VicRoads. 2022. VicRoads modernisation - Progressing a joint venture model for VicRoads Registration, Licensing and Custom Plates. 1 July 2022. <https://www.vicroads.vic.gov.au/about-vicroads/vicroads-modernisation>
- Vitali, S., Glattfelder, J.B. and Battiston, S., 2011. The network of global corporate control. *PLoS one*, 6(10), p.e25995. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0025995&fbclid=IwAR38sOuKb6W6HaSawiiKiewXnsI567L7UqLMQZbiVE7kRfQx4Ybd6-ouAvk>
- Willingham, R. 2018. Victoria gets \$2.86 billion in 'outstanding deal' to privatise Land Titles and Registry office. *ABC News*. 27 August 2018. <https://www.abc.net.au/news/2018-08-27/victoria-privatises-its-land-titles-and-registry-office/10169056>

Author contact: c.murray@sydney.edu.au

SUGGESTED CITATION:

Cameron K. Murray, "Ownership illusions: When ownership really matters for economic analysis", *real-world economics review*, issue no. 105, October 2023, pp. 74–86, <http://www.paecon.net/PAERreview/issue105/Murray>

You may post and read comments on this paper at <http://rwer.wordpress.com/comments-on-rwer-issue-no-105/>