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Principal–agent problems in multi-unit developments: The impact of developer actions on the on-going management of strata titled properties

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Abstract
This paper demonstrates the impact the actions of developers during the design and build phases of multi-unit residential developments can have on the quality and effectiveness of the on-going management of developments. The findings presented are drawn from a large research project that included interviews and surveys with property owners, executive committee (body corporate) members, strata (property) managers, and peak body representatives about the management of strata schemes in the state of New South Wales in Australia. A total of 1550 people were consulted. The actions of developers in the set-up of multi-unit developments (including build quality, design, allocation of unit entitlements, and levy setting) can have an important impact on the quality of buildings, the financial viability of schemes in the short-to-medium term, the balance of power between owners, the effectiveness of management and the nature and incidence of disputes. The paper concludes with a discussion of opportunities for integrating long-term management considerations into decision-making in the design and build phase to ensure management costs and costs to those using the property are minimized. The research will be of interest to those involved with property developments in international jurisdictions that have similar multi-unit ownership and management structures and in jurisdictions considering the introduction of similar forms of multi-unit ownership.

Keywords
Multi-unit development, property development, principal–agent dilemma, strata title, apartment, condominium

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Introduction

Rapid urbanization has led to the widespread adoption in developed countries of planning processes that encourage the housing of growing urban populations in higher density multi-unit housing in existing urban areas (e.g. CEC, 1990: 40; OECD, 2012). Australia, where almost 90% of the population already lives in cities (United Nations, 2011) has been no exception. The five major Australian cities, housing more than 13 million people, all have metropolitan strategies that promote urban consolidation (Department of Infrastructure and Transport, 2011).

This has resulted in a rapid increase in the number of multi-unit developments being built in metropolitan areas. ''Multi-unit'' is used in this case to refer to developments consisting of two or more attached residential properties (with or without commercial properties) and can include apartment buildings and townhouses.[1] In Australia, almost all of these new developments are strata titled (Easthope and Randolph, 2009). The state of New South Wales (NSW) in Australia was the first to introduce strata title legislation, and this legislation was used to inform similar legislation in other states and territories around the country. Australian strata title legislation and the New South Wales (NSW) system in particular have also been used to inform the development of strata title systems internationally, including those in Singapore, New Zealand, Indonesia, Malaysia and Brunei, and the province of British Columbia in Canada (Easthope and Randolph, 2009). Other similar systems of apartment ownership include Condominiums (US, Taiwan), *Copropriété* (France), Commonhold (England), and Sectional Title (South Africa). There has also been discussion in other jurisdictions of the value of introducing such forms of property ownership to deal with perceived flaws in on-going property management (see for example, Banks et al., 1996).

The strata title system of property ownership allows for the individual ownership of a lot (the inside of an apartment) and collective ownership of, and responsibility for, the common areas of a strata scheme, which include the buildings, grounds, and shared facilities. It is for this reason that they have been termed ''dualistic'' ownership systems (Lujanen, 2010). On purchase, all lot owners become a part of the ''owners' corporation'' in NSW (also known as the ''body corporate''). The owners' corporation owns the common property of the scheme and is responsible for scheme management. The owners' corporation (i.e. all lot owners) elects members to sit on an executive committee (EC), which is charged with making many of the decisions regarding the management of the scheme. The owners' corporation often engages a professional strata management company to assist the EC with the management of a scheme, especially for the larger schemes.

There are almost two million strata and community title[2] lots in Australia, and approximately three million people, one in eight Australians, live in a strata scheme (Easthope et al., 2012). The strata sector is also growing rapidly. Partly as a response to the permissive strategic planning environment noted above, but also reflecting market driven changes in the focus of the residential development industry in Australia, apartment (unit) development has reached all-time record levels. As demonstrated in Figure 1, the number of dwelling approvals for units has increased rapidly over recent years in Australia and is now almost equal to approvals for houses. This trend is most pronounced in Australia's major cities, especially Sydney and Melbourne, which are seeing on average more than 2000 new units approved each month (Figure 2).

Because of the scale and growth in the sector, the question of whether residential strata is working for the stakeholders involved has become pressing. From 2009 to 2012, the authors undertook a research project on the management and governance of strata schemes in Australia's largest state (by population), New South Wales, with the aim of providing

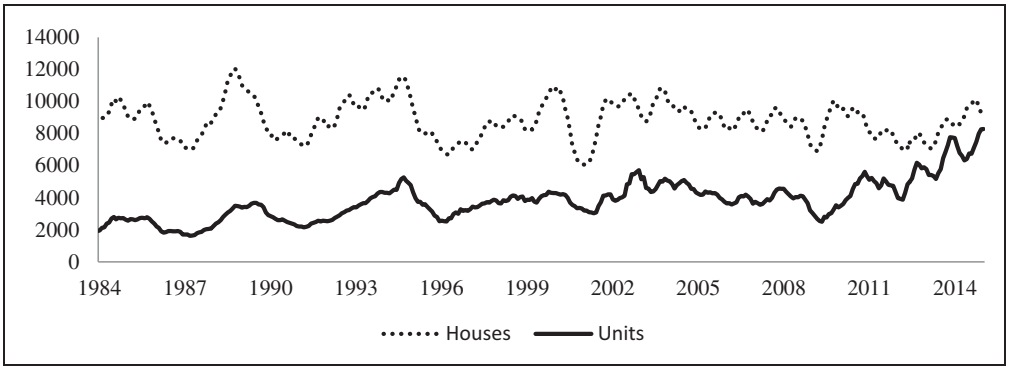

Figure 1. Trends in dwelling approvals by dwelling type, Australia, 1984–2015 (six month moving average). *Source*: ABS (2015) (8731.0).

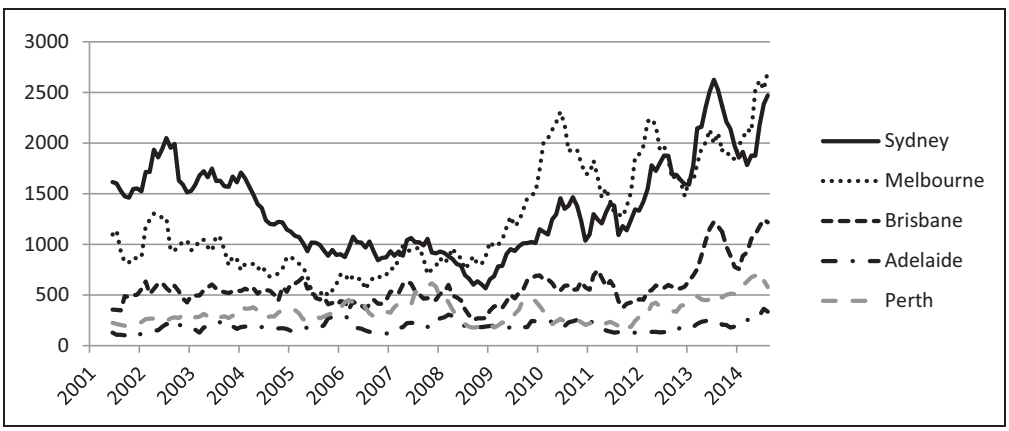

Figure 2. Trends in dwelling approvals for units in major capital cities, 2001–2015 (six month moving average). *Source*: ABS (2015) (8731.0).

evidence to support, or otherwise, anecdotal reports from residents, owners, strata managers, and the media about some of the challenges facing the strata sector in Australia. The project had three main research questions:

(1) How well does residential strata work from strata owners' points of view?
(2) What is the role, capacity, and effectiveness of owners' corporations?
(3) What is the capacity and effectiveness of strata managers?

We spoke with 1550 people over the course of the research, including owners, EC members, strata managers, and peak body representatives. However, there was one group of stakeholders that we paid less attention to as we developed and began the research: developers. Yet through the course of the research it became clear that the actions of developers (and the builders, sub-contractors, lawyers, real estate agents and strata managers they employ) have a significant influence on the on-going functioning of strata schemes.

While the findings presented in this paper were derived from research in NSW, they capture issues that are common across Australia and many other jurisdictions internationally, where dualistic systems of property ownership such as strata title and condominium are the dominant ownership form for higher density housing.

The next section of the paper explains the need for research in this area focused on strata schemes and residential strata schemes in particular. The following section provides information about the research project followed by an introduction to the concept of the principle-agent framework that will provide the structure for the paper. The remainder of the paper presents the findings of the research, beginning with a discussion of the role of the developer in the design of strata schemes, and the implications of this for the on-going management of the scheme, and the impact of building quality on the on-going management of strata schemes. The following section examines the set-up of accounts, the allocation of unit entitlements, and the on-going involvement of developers in some schemes. The paper concludes with a discussion of opportunities for better integrating long-term management considerations into decision-making in the design, build and hand-over phases to ensure management and costs to those using the property are minimized.

The focus on residential strata schemes

Decisions made by a builder or developer during the development phase will have a long-term impact on any residential development once it has passed into its occupation phase. What gets designed and then built will have a significant role in how well any building performs over the life-time of that building. However, in multi-unit strata schemes, the role of the developer is particularly significant because they are not only responsible for the design and build quality, but unlike single titled residential property, also for the quality of the scheme's initial finances and management structure. This is because at the early stages of a strata scheme, the owners' corporation *is* the developer. During these early stages, known as the ''initial period'' in NSW (*Strata Schemes (Freehold Development) Act 1973* (NSW) s5), the ''original owner'' (the developer) is responsible for all of the duties of the owners' corporation until such time as the last lot is sold. There are regulations governing the actions that the original owner can and cannot take in their role as member of the owners' corporation (*Strata Schemes Management Act 1996* (NSW) ss 50, 113), but essentially developers are responsible for designing not only the buildings and grounds, but also the management structures under which a strata scheme will operate. Despite the influence of the actions of developers on the on-going functioning of a strata scheme,Johnston and Reid (2013: 378) note that the ''transition phase'' in which developer control is transferred to lot owners, is an under-researched area, and call for future research on ''a scheme's establishment, the turnover of control and power, conflicts of interest and establishing governance and management frameworks.'' There are some exceptions. These include: research by Blandy et al. (2006) on difficulties arising from the continued involvement of developers in multi-unit residential developments in New Zealand and England; Poliakoff's (2002) insightful comments on developer control in homeowners associations in the US; Chen's (2010) paper on the minimal provisions regulating developers of condominium projects in China, and Li's (2005) case study on the continued interest of a developer in a single development in Hong Kong. This paper contributes to this evidence base by demonstrating the impact the actions of developers during the design and build phases of multi-unit residential developments can have on the quality and effectiveness of the on-going management of those developments.

Considering these issues in the context of residential strata developments, rather than commercial strata, is also particularly important as the final purchasers of a residential strata

property in effect collectively become amateur property managers who, through the owners' corporation of which they automatically become members, are responsible in many cases for property assets worth many millions of dollars. These collective amateur managers do not benefit from the same level of expertise that commercial property managers possess. In the case of residential and mixed use strata developments sold directly to individual purchasers sight unseen "off the plan", lot owners (owner occupiers and small-scale investors) do not have the benefit of professional property and asset managers ensuring that they are getting what they pay for when they buy, and in most cases are in a situation where they must trust, or take a chance on, the developer providing as promised. In the context of a clearly unbalanced market relationship between buyers and sellers, this means that the professionalism, competency, and honesty of the developer are particularly important, as is the thoroughness of the regulatory environment in which the relationship operates.

The research

This paper draws upon three surveys and follow-up interviews conducted with strata managers, EC members, and strata owners between 2009 and 2012 that explored issues relating to the management and governance of strata schemes (Easthope et al., 2012). All surveys were available online and in printed form and most interviews were conducted over the phone, with a small number conducted face-to-face.

The survey of strata owners was sent out to a stratified random sample of 5000 strata owners across NSW by NSW Land and Property Information, the government agency that holds information about each strata title lot. A total of 1020 complete and valid responses were received. The distribution of the respondents broadly reflected the distribution of the total population of strata owners in regard to age, sex, and labor force status; and the respondents were geographically spread across NSW. Confidence levels for this survey are calculated at $\pm 3.1\%$. Of the 623 survey respondents who agreed to be contacted for a further in-depth interview, 20 were selected to reflect a cross-section of scheme types and locations.

The survey of EC members resulted in 413 complete and valid responses received. Confidence levels for this survey are calculated at $\pm 4.8\%$. While there are no data on the numbers of EC members across NSW, this response, though relatively small in proportion to the total possible population of EC members, nevertheless provides a useful indication of issues facing a variety of EC members in running strata schemes of a number of types, sizes, and locations. Of the 290 survey respondents who agreed to a further interview, 21 were selected.

The third survey focused on strata managing agents. Despite targeted advertising, the long running time of the survey, and the inclusion of a prize draw, it was difficult to attract managing agents to undertake the survey. In all, a total of 106 complete and valid responses were received. This sample size is too small to be considered representative of strata managing agents operating in NSW. It does, however, provide a useful indication of issues facing managing agents working with strata schemes of different types, sizes, and locations. Despite multiple agents being approached to participate in a further interview, the vast majority declined or did not respond and it was only possible to conduct a further four in-depth interviews with managing agents.

The following analysis draws on both the quantitative and qualitative components of these three surveys. For further details of the method and results see Easthope et al. (2012).

Theoretical framework

The different motivations and priorities of those involved in the development phase of a strata scheme and those involved in its operational phase can be conceived of as an example of what have been termed "split incentives" which arise when stakeholders in an enterprise do not share the same goals. The concept has been applied in residential buildings in relation to issues surrounding energy efficiency retrofits (e.g. Bird and Hernandez, 2012). This concept can equally be applied to the contrasting incentives that motivate strata developers and owners. Split incentives between developer and owner are perhaps the most fundamental issue in the strata title property sector and stems from the potentially conflicting requirement for developers to maximize the profitability and the rate of sales of a scheme in the short term and the longer term need for the subsequent owners to adequately maintain the building at a minimum of cost and disruption over its lifetime (for further discussion of split incentives in strata see Randolph and Easthope (2014)). Conceived of in this way, split incentives in residential strata schemes are a classic example of what behavioral economists call the "principal–agent problem" (Grossman and Hart, 1983). To summarize: a person or organization (the principal) commissions a service from another person or organization (the agent). In this case, the principal would be the purchasers of units in a scheme and the agent would be the developer. A principal–agent problem occurs when the principal and agent have different interests, as well as different amounts of information. In particular, the agent has more information than the principal so the principal cannot know if the agent is working in their best interests.

Principle-agent theory has already been successfully used to explore relationships between actors within strata title and similar developments. Notable examples are: Guilding et al. (2005), who explore the relationships between owners and letting agents in tourist accommodation in Queensland Australia; Yiu et al. (2006) who note that the principle-agent problem can arise between owners and their property manager in residential housing developments in Hong Kong; and Yip et al. (2007) who use principle-agent theory to examine what factors influence the choice of different modes of management (passing different degrees of control onto management staff) in Taipai and Hong Kong.

This theoretical approach can be just as usefully employed to theorize the relationships between developers and owners in strata schemes. In the case of strata development, the developer has a significant incentive to maximize their profit in the short-to-medium term during the transition phase when the building is being marketed, but little incentive to consider the on-going management, maintenance, and repairs costs in a scheme. In contrast, the purchasers have an incentive to purchase a property at a competitive price as well as to have an efficiently (and therefore less costly) run scheme in the medium-to-long term to reduce on-going running costs and maintain its asset value on resale. An exception is where the developer is concerned to maintain a high reputation in this area in order to charge a premium on subsequent developments. While this condition may prevail in high value areas, developments elsewhere, especially in lower cost areas, are unlikely to attract the same level of concern from developers.

The following sections of the paper discuss how these tensions between the principle (developer) and agent (owners) play out during the development and hand-over phases of a strata scheme. We begin by discussing the design of the development, before turning to the building process and then the set-up of management structures for the strata scheme.

Building design

Previous research has demonstrated that building design can have a significant impact on the livability of properties for residents (for a review of this literature, see Easthope and Judd

(2010)). In particular, much attention has been focused on the impact that the design of the physical environment can have on the quality of social interaction, neighborliness, and community (e.g. Henderson-Wilson, 2008: 9; Kern, 2007: 673; Lee, 2005: 27; Raman, 2010; Randolph, 2006: 26).

Some survey and interview respondents in our research also pointed to the benefits of good design in their schemes in regard to encouraging positive social interaction between residents:

> . . .because it's got that design and it's got a garden in the middle and so on, people are more friendly... a lot of people knew each other because the design of the building is of a nature to encourage communication and friendliness. (Owner interview, respondent 21)

Design is important not only for supporting positive social interactions, but also has longer term implications for equipment choice, maintenance, and energy costs (Easthope et al., 2014: 294). In the survey of EC members almost one-third (29%) said that there were aspects of the design of the buildings in their strata schemes that made managing the scheme more difficult. Respondents were asked to identify the most important problem. Besides responses relating to building quality (discussed below), the following issues were identified:

- The complexity of the scheme.
- The design and placement of services and utilities.
- The existence of old and heritage buildings.
- Problems with access.
- Problems with drainage and flooding.

In regards to scheme complexity, this included both complex management structures such as where several individual strata schemes are nested within an overarching community scheme,[3] and the complexity engendered with mixed use (residential and commercial) schemes.

In this case, the principal–agent relationship is a complex one, mediated by an external factor – local planning authorities. Mixed use strata development has been driven by an increasingly used precept of the land use planning system which mandates mixed use zoning ordinances in town centers and along major roads to include ground floor commercial and retail uses in higher density developments in order to "activate" street frontages. Developers are therefore required to include such uses if the zoning requires it. This has led to a proliferation of mixed use schemes in these kinds of locations in recent years in Australian urban areas. While based on otherwise sound urban design principles, mixed use development has generated unintended consequences in the form of growing tensions between commercial and residential strata owners. In the survey of strata owners, while only a minority (15%) of respondents said that there were non-residential uses in their schemes,[4] just over half of these (53%) said that they had experienced problems as a result of the mixed use nature of their scheme. As one respondent noted: "No disagreement within the scheme, but disagreement exists within the community which comprises several strata within a neighborhood scheme" (Owner survey, R85).

The most common concern related to the management of the shared use of facilities:

> Essentially the 'Commercial' & 'Residential' should have been two separate SPs [strata plans]. There exist many inequities, generally in favor or the residential owners. Problems are associated with gas usage, lift maintenance, foyer upgrades, large expenditure of sinking fund budget on areas that do not affect commercial owners . . . There have been disputes between the commercial lot owners and the residential owners, as their priorities differ. (EC survey, R114)

Managing agents were also asked whether there were any aspects of the design of any of the strata schemes they managed that made management more difficult. Over half (53%) indicated that there were. Besides building defects, the most common problems raised were poorly located services that are difficult to access for maintenance.

Design also played a significant role in regards to disputes. Two of the most common disputes identified in the survey of owners were disputes regarding parking and noise.[5] The most commonly raised issue regarding parking was cars parked illegally on common property, particularly in visitor car parking spaces. In some cases, the difficulty of dealing with this issue effectively was linked to the design of the parking areas: "Parking areas are open to the general public, which, along with owners/tenants, abuses the visitor car park – difficult to put on an effective security gate" (EC survey, R311).

Regarding noise disputes, while many respondents discussed the influence of resident behavior on noise disputes and the influence of poor sound insulation between units, others spoke about design issues affecting noise, especially the layout of the building and the positioning of rooms relative to adjoining units:

> Two larger unit blocks on either side carry/bounce sound directly into my unit block. The car park and balconies of the unit next door is much too close to the bedrooms in my unit block, therefore disruptive noise levels are high, often at night/early hours. (Owner survey, R402)
> Kitchens backing onto adjoining apartment main bedrooms = excessive noise/vibration transmission. (Owner survey, R18)

As the case of apartment design shows, while many of these problems may well be unintended, they are nevertheless underpinned by a disjuncture between the decisions of those developing schemes and the repercussions for those who end up living there.

Building quality

One area in which the conflicts generated by the principal–agent problem become evident is in the build quality of new strata buildings. Here, there are strong and perverse outcomes that result from poor decision-making by developers during both the design and construction phases of a new building. In many cases, these conflicts are entirely preventable.

Developers of new strata schemes in Australia must abide by Federal and State building codes and State and Local planning policies when designing and building new properties. However, in practice, the standard to which new strata schemes are built varies widely. The building standard of a strata scheme can have significant impacts on the management of the scheme. Poor building quality can impact upon the subsequent owners of properties within a development for many years after the property is built, as owners are affected not only by the building defects, but also the requirement on the owners' corporation to identify these defects and seek to have them remedied.

Building defects are building faults that have existed since construction or been triggered later on by faulty original construction or design. Common building defects in NSW strata dwellings include external and internal water leaks, defective lifts and air conditioning, defective or dangerous balconies, electrical faults, structural cracking, and poor fire and safety compliance (Easthope et al., 2009).

In the survey of owners, respondents were asked whether there had ever been any defects in their strata schemes to their knowledge. The survey clearly defined defects and specified that the question was not asking about repairs and maintenance issue. Of the survey respondents, only 17% had never had any defects present in their scheme while 11% did not know. The remaining 72% indicated that one or more defects had been present in their scheme at some

stage. The most common defects identified were internal water leaks, cracking to internal or external structures, and water penetration from the exterior of the building.

These issues are certainly not unique to the NSW or even Australian case. There is evidence of significant, and in many cases growing, concern around construction defects in apartment buildings in Singapore (Christudason, 2007), Vietnam (Hai, 2007), the United States (Noble-Allgire, 2009), New Zealand (Murphy, 2011), India (Agola and Kashiyani, 2015), and Sri Lanka (de Silva, 2011) for example. In Australia, a multitude of reasons has been posited for the increase in defects in apartment buildings including (but not limited to): withdrawal of government oversight of the construction process (Cooper and Brown, 2014); a project-management approach to construction (Drane, 2015); increasing innovation in the design of buildings made possible with the introduction of computer-aided design and the availability of new building materials (Agola and Kashiyani, 2015); and an increase in the practice of selling properties pre-completion ''off-the-plan'' (Ong, 1997). **[AQ1]**

This situation is concerning because building defects are associated with significant financial and social costs, as well as health costs (James, 2007: 10). Aside from the immediate implications of building defects for residents and owners on health and safety, livability, property values and rental incomes, the existence of defects can also have a serious impact on the effective management of a strata scheme. In particular, dealing with defects can impact upon:

- The capacity of owners, EC members, and strata managers to deal with other management duties. EC survey respondents identified on-going problems or initiatives as having a major impact on the time they spent on EC matters. In particular, building works, defects, and repairs and maintenance were identified as issues requiring their time: ''[The EC] have met monthly since inception. Though not big (30 lots) this development has had many challenges with construction faults and difficulties caused by original developer (EC survey, R239).''
- The financial costs borne by owners to cover emergency and other repairs, investigations, legal costs, and sometimes re-housing residents:

  > Although the plumbing failure was due to installation issues it would have cost more to take it through court than to just get the work done independently. [The] Body Corporate spent $30,000 just in consultancy fees and initial legal advice and we were told that [the developer] would keep it tied up in the courts for so long that it would probably cost more in legal fees than it would to repair. (Owner survey, R532)

- Relationships between neighbors and other stakeholders. Conflicts over funds and responsibilities for defects can occur between owners, EC members, managers, developers, and others: ''We are having problems with building defects. Some members want us to obtain legal advice [while] others do not. Problem has not been solved (EC survey, R103).

Where these challenges are not resolved, un-remedied defects can result in further on-going damage and deterioration to the property. These issues are far from trivial. In a recent case in Sydney which achieved some notoriety, the roof blew off a newly constructed apartment block during a storm and the building insurers refused to pay out arguing that the building had been so poorly constructed in the first place that the insurances were effectively null and void (Ford, 2016). The owners of this block face substantial repair costs.

Management set-up

The involvement of the developer does not stop with the design and building of a development. As noted above, as well as producing the buildings, developers are also responsible for setting up many of the management structures of strata schemes which have subsequent bearing on the effectiveness of the management of a scheme. Two examples are addressed in this section, the allocation of unit entitlements and levy setting. We then turn to a discussion of the impact of the continued involvement of developers in some schemes. Once again, the principal–agent problem is a source of potential conflict.

Allocation of unit entitlements

Not all owners have equal weight within the owners' corporation. Their relative weight is determined by their unit entitlement, which is based upon the relative value of their strata lot. Unit entitlements regulate the voting rights of each owner and the amount of levies each owner must pay. Developers are ultimately responsible for allocating unit entitlements, but if these are inappropriately allocated, disputes can arise. Just over half (55%) of managing agent respondents identified issues, other than building design, with the set-up of one or more of the schemes they managed: in particular, the allocation of unit entitlements. Unit entitlements were also the most commonly mentioned issue for EC survey respondents when asked to describe any issues faced as a result of the set-up of their schemes and this issue was also mentioned by 17% of strata owners surveyed, in particular that the unit entitlements did not reflect the relative value of lots in the scheme:

> The architect made entitlements to the lots he owned incredibly low and the commercial one he was leasing incredibly high, and then varied them arbitrarily for the other residential lots, making them not correspond accurately with the relative sizes of those units. It took them a while to understand, but some were paying 28-30% more in strata rates than others for similar sized apartments. (EC interview, R239)

Levy setting

Concern was raised by some EC respondents and interviewees that they considered the developer had set the initial levies in their schemes too low. Strata fee liabilities will be taken into account by developers as part of their development feasibility assessments when planning for a new strata title development; however, there is a risk that should the housing market weaken during the period of the development, a reduction in predicted strata fees may be one tactic used by developers to both minimize their own financial exposure to paying levies and to make their product more attractive to potential purchasers. Other Australian research provides supporting evidence of developers setting initial levies low to support the marketing of lots (Johnston et al., 2012) and to minimize the costs to developers themselves during the initial period when they may also own units prior to sale (Kleinschmidt, 2011). Again, this is not only an Australian concern with researchers identifying similar problems with developers setting levies too low in order to promote sales in the US (Chen, 2010: 10).

In an interview, one owner spoke about the implications of this practice for property owners:

> When you've got a builder, I'm talking about a brand new place now, and he says the strata fees will be X amount of dollars, and he's so way out with the figures, because I know myself, looking

> at a building, when you can see extensive gardens, and swimming pools and lifts and everything, that down the track are going to be big maintenance. And then you've got . . . the strata fees are this much, just to make it so attractive so you can buy. . . But . . . you move in and as soon as the builder's gone, a year later, you'll be doubling those strata fees. I think that's a big problem, and I'm blaming the builder, the developer, because he's obviously made it sound very attractive . . . once you're in it's a different ball game. (Owner interview, R691)

This can have severe consequences for the effective management of the scheme in the medium term, as levies will need to be increased.

Continued interest of the developer

While many schemes are developed and sold in their entirety, there are numerous examples where the developer maintains a part interest in a scheme.

The data from our research indicate that this practice is widespread, as four in five (80%) of respondents to the strata managing agents' survey reported such examples. Problems had arisen for half (55%) of these respondents as a result of the developer retaining an interest in at least one of the schemes that they managed.

Developers can hold control in a scheme in the following ways:

- Maintaining ownership of lots and therefore unit entitlements:
- Holding proxy votes of absentee or compliant owners:
- Having connections with members of the EC and/or strata managing agents who might hide defects, delay investigation, or try to avoid claims and legal actions.[6]

In a paper discussing these issues in the US context, Poliakoff (2002: 50) explains that developers may wish to maintain control in a development for a number of reasons. He lists these as: ''controlling the purse strings,'' ''precluding litigation during the sales process,'' ''maintaining access to the common areas and sales offices,'' and ''preventing amendment of the governing documents.'' These concerns were also reflected in the NSW study, with ''controlling the purse springs'' being the most common reason noted by participants. Specifically, the most common problems were a reluctance to address defects and financial problems, including withholding (not paying) levies, resisting spending on the building, misusing funds, and underfunding or underinsuring the scheme.

In the survey of EC members, 13% said that the builder or developer of their scheme still held some interest in their scheme. Not surprisingly, the majority of these owned properties were in schemes built in the last 10 years. Over half of these (56%) said that problems had arisen as a result of this continued interest by the developer. The most commonly identified problems were that the developer had control over the strata manager and/or contractors working in the scheme, the developer was delaying the rectification of defects, and that the developer owned many lots and dominated the owners' corporation and/or EC. Other issues raised included the developer not paying levies and setting initial levies too low.

Defects rectification provides a good example of the influence the continued role of the developer can have:

> The developer still owns a number of lots in the strata scheme. And also there [have] also been defects such as water leaks, walls between units being not soundproof [sic] enough, etc. The developer and builder are passing on the bucks between one another and no one wants to take responsibilities [sic]. The developer has also dissolved their company and started another company with a different name making it harder to take legal actions against them. (EC survey, R368)

When a scheme is new, transition from developer to owner control is often still in progress. The developer may still own lots in the scheme (and therefore voting rights). There is also an imbalance in power, knowledge, and financial strength between the builder or developer and the owners. While owners only deal with defects once, developers and builders do so regularly as part of their usual business. Developers also have better access to, and more familiarity with, the investigation, rectification, claim, and legal processes.

Nevertheless, in some cases, the fact that a developer maintains some control can be beneficial in enabling them to draw on their contracts with builders to get them to quickly fix building problems as they are identified.

> We had a defect report completed with the major defect being the glass panels on the balcony not being within BCA [Building Code of Australia] regulations. The developer immediately rectified the issue at their cost. (Owner survey, R50)

In other cases, however, developers can delay or hinder the rectification of defects where their rectification might result in costs to their business. The following quotes exemplify the issues faced by owners, ECs and managing agents, the latter often caught in the middle of disputes:

> At one stage, the EC included the developer, the builder and their relatives. This meant that serious defects relating to fire safety were not treated as defects and were paid for by the Body Corporate - thus reducing our sinking [fund] by more than $30,000. (Owner survey, R270)
>
> Initially [the] developer and their colleagues held too many proxies and railroaded the EC for about 5 years. This nearly resulted in missing the 7 year warranty. (Owner survey, R964)
>
> Developer has too much say, and is reluctant to address building deficiencies. (EC survey, R299)
>
> The builder who engaged me to have the first meeting ... the owners were picking him to bits at this meeting about the various defects ... they wanted me to include it all in the one letter ... I said OK I'll do that for you because I know that you're uncomfortable writing to the builder... well he got a bit stroppy because he thought my role was to support him because he had engaged me... I said I've been charged by the Executive... So you're in the middle ground and it can be quite delicate. (Managing agent interview, R17)

Similar findings have been discerned in other Australian research which has reported on developers finding ways to maintain control over developments and stopping owners from taking legal action against them for defects (Johnston et al., 2012; Sherry, 2009). A lack of sufficient oversight of the development process by accountable agencies, the ability of developers to manipulate the period over which their responsibility for the building is extinguished, and the general lack of familiarity of owners as to their management rights and responsibilities, noted above, means that the principal–agent problem can play out to the significant detriment of owners in this critical transition period.

Discussion

As we have shown, the way in which a strata scheme is built, as well as the way its management structures are set up, can have a long-lasting effect on the future operations of that scheme. The choices made by developers can have a significant impact on the quality of buildings, the financial viability of schemes in the short-to-medium term, the balance of power between owners, the effectiveness of management and the nature and incidence of disputes.

There are a wide range of developers in Australia providing residential and mixed use strata developments. They range considerably in size, experience, complexity, and competence. However, for most, their primary concern is to develop and sell property as quickly and profitably as possible. Those that retain an interest may do so for a variety of reasons, but the designer and the builder or developer typically do not have an on-going

interest in the building and there is therefore little incentive for the developer to consider a building's full life cycle (Easthope et al., 2014: 294).

While many schemes experience few problems affecting their long-term management as a result of the actions of the developer, the research findings presented in this paper provide evidence that the actions of developers are a cause for concern for a significant number of strata managers and owners. This begs the question as to why some developers do not appear to take adequate care to ensure that their actions do not negatively affect the longer term management of the schemes they are responsible for developing. Two possible answers to this question are that they are either not aware of the impact their actions can have on longer term scheme management (ignorance) or that they have insufficient incentive to mitigate the negative impacts their actions can have on longer term scheme management (irresponsibility), or some mix of the two. The two explanations are likely related, as the more incentive developers have to deal with these issues, the more likely they are to takes steps to address them, or at least avoid the worst excesses.

Conceptualizing these split incentive issues within the principal–agent framework provides an indication of the opportunities that exist to better integrate long-term management considerations into the design and build phases of a development; in particular, how to best ''incentivize'' developers (agents) to act in ways that are also in the interests of subsequent owners (principals). One important mechanism for doing this is rewarding those developers who do the right thing and penalizing those who do not. This could either be actioned through government intervention or market processes.

Components of a governmental approach might include introducing legislation to require or prohibit certain activities, monitoring and compliance checking, and issuing penalties for those who do not comply. A market approach might include consumers (i.e. the subsequent owners) demanding a particular level of both information and service, popularized through marketing and information campaigns, which could be led by peak bodies or other consumer representatives. The following paragraphs provide two examples of how this might be achieved.

Example 1 – Increase the information available to the principal: The case of poor levy setting.

By reducing the imbalance of information between the principal (both initial and subsequent owners) and the agent (the developer), the principal–agent problem might be reduced. One way of doing this would be to increase the information available to purchasers (both initial and subsequent) about whether the accounts and levies being advertised in a scheme are reasonable, which would enable the longer term costs (including maintenance costs) to be compared across the market. This could be achieved through legislation and enforcement, through market forces, or a mix of both approaches.

A governmental approach could entail requiring by law that developers provide detailed information at the time of sale about the projected lifecycle costs of the scheme over a relatively long period (10–20 years) and demonstrate how these costs are linked to expected (indexed) levy payments associated with each lot. This would make the practice of setting levies too low at the time of sale more difficult. It would also incentivize developers to design and build properties that have reduced on-going maintenance costs, as these would in turn allow them to advertise lower on-going levies. This approach would likely only be successful if this financial information was independently audited and if penalties were implemented for non-compliance that was significant enough to warrant a change in behavior, such as license suspension. Indeed, the recently passed *Strata Schemes*

Management Bill 2015 (NSW) dictates that owners' corporations can apply for an order from the Tribunal ordering the "original owner" (the developer) to compensate the owners corporation if the levies determined during the initial period of the scheme are found to be inadequate (Section 89). However, this still places the onus of proof upon the newly formed owners' corporation at a time in the life of the scheme when they will be dealing with multiple issues related to taking over a new strata titled property.

A market approach could entail a popular movement on the part of purchasers to demand detailed information from developers about the on-going lifecycle costs of their development, and a system for benchmarking these against industry best-practice. Such a consumer-led change would require significant organizational capacity to raise awareness of the issues and ensure the independence of any benchmarking measures. This would, however, incentivize developers, particularly those selling into higher value markets, to produce developments that minimized unnecessary management costs in order to make their developments more competitive. It may also result in longer term benefits for developers in providing information to companies about their businesses and areas in which they can improve and innovate (see for example Massa and Testa, 2004).

Given the need to ensure coordination across the sector for this to be effective, however, it is unlikely such an approach would emerge spontaneously from the market alone. Some form of compliance requirement (either voluntary or statutory) would need to be introduced to ensure standardized costs data are provided in a readily understandable format. However, this should be eminently feasible: green building ratings for commercial development have been widely adopted by the development industry in recent years as a key marketing principle to considerable acclaim (Green Building Council, 2015). In the residential sector, the NSW BASIX initiative introduced in 2005 requires that all new residential development (including higher density) must achieve agreed in-use energy and water use targets, and is part of business as usual for developers. Both these environmental initiatives primarily benefit end users, not developers. Indeed, a comparable initiative to support longer term strata owners interests could become a key marketing tool and could be championed by developer peak bodies themselves to support good practice among their members.

Example 2 – Bring the interests of the principal and agent closer together: The case of defects

Research has already been undertaken on this issue in the context of Singapore, specifically dealing with the principal–agent problem when it comes to addressing excessive building defects in properties sold off the plan. Ong (1997) demonstrates that in order to reduce the incidence of defects in strata properties, the developer must have an incentive to produce a property without defects. Ong (1997) argues that in the case of off the plan sales, this incentive is significantly reduced, as the purchaser cannot view the property they are buying before it is produced.

Ong (1997) proposes a governmental approach to dealing with this problem. He argues that increasing the length of the warranty period and tightening inspection standards should be considered, but these are not the only two approaches available. Governments could also limit the extent to which developers can sell their developments prior to completion. [AQ2]However, in NSW at least, the State government has moved to reduce consumer rights in this area through two recent amendments to the Home Building Act 1989 (NSW), the first of reduced the length of time in which claims can be made under statutory warranties from seven years for all defects to six years for "structural" and two years for "non-structural" defects (Home Building Amendment Act 2011 (NSW)), followed

by a further change in 2014 to the definition of defects as being "major" or "non-major," with the scope of major defects being reduced compared with the previous definition of "structural" defects (Home Building Amendment Act 2014 (NSW)).

A market approach in this context might entail an information campaign to "name and shame" developers with a history of poor practice in regards to defects, and awarding prizes and accolades to developers who exhibit best-practice in terms of building quality. In Australia, this could be initiated by the main consumer peak body representing owners in the strata sector, the Owners Corporation Network, or comparable consumer focused organizations elsewhere. But there is little doubt that such initiatives are unlikely to be generated by the market alone and would have much greater impact if supported by either the government or the developer peak bodies.

Concluding remarks

This paper has not provided an exhaustive summary of the ways in which the actions of developers can influence the on-going management of strata schemes, nor of possible solutions to these problems. It has, however, demonstrated that the actions of developers in the set-up of multi-unit developments (including build quality, design, allocation of unit entitlements and levy setting) can have a significant impact on the quality of buildings, the financial viability of schemes over their life cycle, the balance of power between owners, the effectiveness of management and the nature and incidence of disputes. There is clearly a need to better integrate long-term management considerations into decision-making in the design and build phase to ensure on-going costs to those using the property are minimized. In other words, the split between the incentives which motivate both sides of the developer – owner divide needs to be brought together.

By theorizing these issues through the lens of the principal–agent dilemma, and considering both governmental and market responses, the range of options available with which to address these problems becomes clearer, and the task of not only penalizing those developers who do the wrong thing, but also rewarding those who do the right thing, becomes more manageable.

Once the "irresponsibility problem" has been addressed, developers will have more incentive to inform themselves of the impacts that their actions can have on the on-going management of a scheme and change their professional practices accordingly. This would include encouraging the sharing of ideas between developers (and their architects, designers and contractors) and strata managers and building managers about designs that encourage, rather than challenge, effective, and efficient management of strata schemes. This might be achieved through creating mechanisms to enable developers to work alongside consumer advocacy and peak bodies to establish agreed guidelines and metrics and produce innovative solutions for these issues.

There are already almost two million strata and community title properties in Australia and if the targets in the major metropolitan strategies are realized we will see almost a doubling of that number over the next 30 years. It is imperative that these issues are dealt with now, to ensure that the problems experienced in the past by strata owners as a result of the actions of some developers are not to plague the new generation of strata owners in the future.

This issue is not unique to NSW or Australia. The NSW strata title system is just one of many dualistic forms of multi-unit property ownership currently used around the world and we can expect that many of the challenges associated with the development of strata schemes in Australia are reflected in strata, condominium, sectional title, *copropriété*, and other dualistic systems worldwide. There is certainly some evidence to support that claim, with some international studies identifying problems similar those identified in our Australian case

(e.g. Blandy et al., 2006; Chen, 2010; Poliakoff, 2002). This paper has added to this body of evidence, in demonstrating how the actions of developers can have an on-going impact on the viability of individual developments, and potentially on the success or failure of compact city strategies in cities whose multi-unit property development is dominated by this form of dualistic ownership. This is no small matter. For the first time in history more than half of the world's population now lives in cities (United Nations, 2011) and the response of governments around the world to rapid urbanization has been the promotion of compact cities policies (OECD, 2012). Yet, the success of these policies largely relies on the mechanisms through which they are delivered. However, typically, urban planning is a completely separate government function from the oversight of property and consumer law on which strata is regulated. The pressure on governments to accede to development industry demands for ever higher density development means that the strata regulation consistently runs behind the scale of the development it is aimed to regulate (for an example from China, see Chen, 2010). As countries around the world rapidly urbanize by building up rather than out and adopting equivalent ownership structures to strata titling, many millions of households will be reliant on developers and builders to provide them with livable multi-unit properties that they can effectively, affordably, and collectively manage into the future. To achieve this, the interests of developers and unit owners need to be much more closely aligned. However, as things stand, there are few incentives for this to happen spontaneously. Governments and consumers need to play an active role in bringing these two sides of the strata regime together.

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Notes

1. It is also possible for detached properties to be strata titled. However, in NSW, it is more common for developments of detached houses with some shared property (such as roads, parks, and other facilities) to be owned under "community title" – a similar form of dualistic property ownership, but one which is regulated by separate legislation in the state.
2. The terminology differs in different states and territories.
3. Community Title is a form of land subdivision that enables shared property to be created. It is essentially a horizontal form of strata title. It is possible to have strata titled properties sitting on a community title lot within a larger community title scheme.

4. The most common non-residential uses were shops (55%), offices (51%), and restaurants or cafes (43%).
5. Noise and parking featured in the top three most common disputes in all three surveys.
6. Note that in NSW, where this research was based, changes introduced in the *Strata Management Legislation Amendment Act 2008* have addressed these issues.

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