Residential Towers in Condominium Tenure

The Problem of Longterm Maintenance under two types of condominium laws

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Chapter in Multi-Owned Housing: Law, Power and Practice. Sarah **Blandy, Jennifer Dixon and**

Ann Dupuis (Eds). Aldershot, UK: Ashgate Publishing, 2010

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The Problem of Longterm Maintenance under two types of condominium laws

Rachelle Alterman[1] and Danny Ben-Shahar[2]

This chapter addresses a rising problem that stems from the intersection of two major trends in urban living: the steep increase in the number of residential towers, and the dramatic rise in condominium ownership and other forms of housing associations. In the

USA, the latter represents the majority of new housing starts since the 1990s. Of course, not all the condominiums or other forms of housing association are in residential towers, but the combination of the two trends harbors problems. This chapter tackles one of the toughest, yet limitedly discussed issue concerning condominium towers: Is there a sustainable legal- financial mechanism that can ensure their maintenance over decades, so as to prevent their deterioration? The global financial crisis that began in 2008 may accelerate this process that might have taken decades to occur otherwise.

1. The structure of the argument

This paper addresses a category of development that is rarely discussed in the scholarly literature: the intersection between tower buildings, residential use, condominium ownership, yet affordable rather than oriented to high income households (see Illustration 1). While there is ample literature on each of these categories separately, to the best of our knowledge, the intersection of all four has not received adequate attention. It merits such attention because a steeply rising portion of the world's population is already or is expected to be living in this category of housing.

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The theoretical anchor of this paper is the theory of market failure. Through its prism

we analyze the maintenance problem in condominium towers. We ask whether there are appropriate legal-financial mechanisms that can overcome the problem of longterm maintenance. Following an introduction to the rising trends of tall building construction on one hand and condominium living on the other hand (Sections 2 and 3), section 4 presents an introduction to the costs of maintenance in tall buildings compared with medium-rise ones. The theoretical grounding for this paper is presented in Section 5, which discusses the three major types of market failure responsible for the problem of longterm under-maintenance. We argue that although these types of market failure apply to any condominium structure, they are considerably exacerbated in tower buildings. The reasons are due to the physical, economic and social-relations factors embedded in tower buildings.

By inserting different assumptions about the socio-economic levels of the households and their capacity to carry maintenance charges, the analysis presented here provide prisms for developing alternative legal-financial mechanism for achieving sustainable maintenance arrangements.

III. 1: The topic is the intersection among four categories

In Sections 6 - 8, the insights from the market failure analysis are applied to the evaluation of two dichotomized types of condominium laws that we tag "simple" and "enhanced". The first type is represented by a Mediterranean country, Israel, the second by the US state of Florida. The two types of laws represent two different housing traditions and socio-economic contexts wherein these type of statutes emerge. Neither type is especially tailored to tower living; they apply to condominiums of any size or

number of owners. The analysis asks, to what extent are the two types of laws suited to ensuring longterm maintenance in tower buildings? An additional question only indirectly addressed in this paper – but of great importance for public policy – is to what extent are the two types of law suited to accommodating low and middle-income households.

Finally, Section 9 presents the comparison of the two types of condominium laws and their suitability to tower housing. Several shortcomings are pointed out. The paper concludes in Section 10 with a discussion of some public policy and legal instruments that may be required in order to bridge the gaps. The current financial crisis casts an additional shadow

Tower buildings

Affordable

on the desirability, as public policy, to rely on tower condominiums as a mainstream part of the housing market.

2. The rising number of tall residential buildings worldwide

Tall buildings are changing the skyline of many cities throughout the world. There is no agreed definition of what is a tall building because, it is convincingly argued, scale is relative to the existing cityscape. But there is no doubt that there is a steep rise in the number of tall buildings being constructed in most parts of the world, and their average height is rising consistently. Whereas in 1980 the average height of the 100 tallest buildings in the world was 78 floors, in 2010 this average height is 110. The less-dramatically tall buildings follow suit. It is estimated that there are over 1300 buildings with more than 50 floors.[3] Buildings of 20-30 floors are already commonplace in many cities across the world. Until the 1990s, North America had the major share in tall buildings. Today, most continents host such buildings in large numbers. In the past, most tall buildings were office towers. Today, the majority are either residential or mixed use. Here lies the major revolution: residential use in tall buildings accompanies, hand in hand, the increase in condominium tenure.[4]

Ill. 2: The leap in height: High rise condominiums typical of the 1980s (left bottom); towers built since 2000. Beer Sheva, Israel (lower and middle-income peripheral city).

[3] There are, to the best of our knowledge, no official worldwide numbers. We base our estimates and extrapolations on numbers supplied by the Council for Tall Building's website. http://www.ctbuh.org/Portals/0/Tallest/InNumbers/InNumbers_Issue2_2008.pdf . Other sources are: Council on Tall Buildings and Urban Habitat (1996) and Abraham Warszawski (2001).

[4] Although, of course, this is not to say that condominium tenure does not occur in office buildings and that all residential towers are in condominium tenure.

Why has the dramatic shift towards tower living occurred? In countries with a developed economy and environmental awareness, part of the momentum arises from the assumption – not always factually true – that tall buildings use land more efficiently than middle-rise buildings. Thus in some cities, tall buildings are propelled by the momentum of the urban densification and compact cities movements. Developers are fast to ride this trend. Increasing urbanization around the world (in 2008 the world population crossed the 50% mark of urban residency) is adding market demand. The leaders of new cities in Western as well as emerging-market countries seem to be competing over "the taller the better". Planners find it difficult to contain the growing demand for high rise living. In Western countries, the conjoint demographic trends of very low birth rates and many single or two person households on one hand and a large group of the aged on the other have created a large demand for housing that is located in close to economically attractive and culturally-intensive urban environments. Tower living is thus potentially attractive to more demographic groups than ever before.

3. The increase in condominium tenure and its impacts on the maintenance issue

High-rise rental housing of the 1960s and 1970s rightfully gained its negative image in downwards-spiraling neighborhoods (Alterman and Cars, Eds. 1991). As part of urban regeneration projects, many such rundown buildings have since been either demolished or (in the UK) "downsized". Since the 1980s, urban policies in many European countries and the USA[5] have generally discouraged residential rental housing in high-rise buildings (excepting in upscale locations). But one may guess[6] that the dominant form of tenure among the new residential or mixed-use towers is not rental, but condominium or other forms of multiple ownership.

The increasing popularity of condominium ownership may be seen as a compromise between the renewed quest of households across the world to own their own home on one hand, and the need to use land intensively on the other hand. For example, in the UK – a country with a rich history of rental housing policies – around 80% of households nevertheless aspire to become homeowners (Siebrits, 2005 cited by Morgan 2009). Reinforced by the theories of De Soto (2000), world organizations such as the World Bank and the UN encourage developing countries to adopt policies that promote homeownership (the effect of the economic crisis that began in 2008 on these trends is yet to be- analyzed).

In the USA, the increasing number of housing units in condominium tenure is also part of a broader nationwide trend towards housing associations. In 2008, 24 million housing units were members of such associations, encompassing 60 million people. Of these, it is estimated that about 40% were in condominium tenure (Community Associations Institute 2009)[7]. Among new housing starts, the majority are in housing associations (Nelson, 2005). There is a growing body of knowledge about housing associations in the USA – some authors supportive, others critical.[8] But there is very limited scholarly discussion among planners,

[5] The negative experience with high rise rental housing in the USA is strongly expressed by Alexander von Hoffman (1996). [6] To the best of our knowledge, there are no world statistics on this topic [7] Most of the remaining were homeowner associations and only 5-7% are estimated to be cooperatives. See: Community Associations Institute: http://www.caionline.org/info/research/Pages/default.aspx [8] Among them: McKenzie, Evan (1996). David T. Beito, Peter Gordon, Alexander Tabarrok (Eds., 2002). Robert H. Nelson (2005).

economists, and legal scholars that focuses on residential condominium towers. Will the new, upscale condominium towers be immune from the ailments of their predecessor high-rises in rental tenure?

The argument of this paper is that form does indeed make a great difference. Regarding the issue of longterm maintenance, housing associations in traditional low-rise American neighborhoods are likely to perform, in the long-run, quite differently from housing associations in condominium towers. The towers necessarily bring together a large number of owners within a single building – often close to 100 or even more. Thus, the legal and governance issues associated with any condominium

structure – as analyzed in other chapters in this book – are exacerbated in residential towers. The "condos" for the very rich are probably a lesser problem than the increasingly popular towers that target anyone other than the very rich. How can one oblige a large number of owners to contribute their share on an ongoing basis?

To give a sense of the potential magnitude of the problem, the following section approximates the financial cost of maintenance in tall buildings.

4. The levels and cost of longterm maintenance

Unlike the conventional wisdom, tall building often entail *higher* rather than lower per-unit maintenance costs despite the large number of owners. A further problem is related to the structural attributes of tower buildings. These operate like complex, closed machines, not like "regular" building which can, if necessary, be added to and updated in many more external and internal ways. Tower buildings are less amenable to structural modifications, so there is a greater danger that they eventually downscale in relative price, losing their "placement" in the housing market, and thus deteriorate faster than smaller apartment buildings. In addition to current expenditures for routine maintenance, large investments are required periodically for repair and replacement of expensive machinery, large scale upgrading of the building etc.

Our argument about the maintenance problem in high-rise buildings deserves a brief introduction to the levels of maintenance and their costs.

Levels of maintenance

The problem of finding a longterm maintenance-finance mechanism for tall buildings is complicated by the fact that it is not consistent over time ("linear"). Levels of maintenance may be distinguished by the frequency of action required. We distinguish among four levels (this is a schematic distinction; the span of years for each level or the number of levels may differ from case to case):

Level 1: **Ongoing maintenance:** Day to day (or weekly) activities such as cleaning of the foyer, staircases, elevators, ongoing gardening, security (where supplied).

Level 2: **Preventive upkeep:** Approximately every 5 years – periodic upkeep necessary in order to prevent deterioration of structures and machines.

Level 3: **Periodic replacement:** Approximately every 10 years it is necessary to replace structures and machines (refurnish external walls, replace elevators etc.).

Level 4: **Updating:** Approximately after 20 years it is required to update and upgrade the building and its services to reflect the increasing housing standards in the marketplace. This

is intended to prevent the natural process whereby the building "filters down", i.e., moves down the ladder of housing quality (and price). This level of maintenance is rarely undertaken.

The first level of maintenance is the one people are accustomed to do in their own homes and is easily visible to residents when neglected. In regular non-high-rise condominiums, collection of funds for this level of maintenance is often less difficult than for the other levels because owners are able to see what their payment has financed close to the collection date. Also, the periodic payment is relatively small each time. For the other levels of maintenance, as the time periods grow longer, the connection between the date of collection of the maintenance fees and the maintenance activity becomes less direct. The outputs and outcomes of the maintenance activities of levels 2 and 3 are likely to be less visible to the owners[9].

In order to pay for maintenance activities of levels 2 and 3, the condominium must usually have a relatively larger pool of financial resources than is collected on a regular basis. Such maintenance action requires a more sophisticated financial mechanism – either collection of a special levy from time to time, or creation of a capital fund. Both mechanisms require a more complex legal-institutional mechanism than necessary for the collection of fees to cover day to day maintenance costs. Furthermore, as the time range expands, there is greater likelihood that some or even most of the original owners will no longer be there. An "intergenerational" problem arises, whereby, upon sale, the current owners have an interest to pass on the onus of financing maintenance to the buyers.

This analysis holds for condominium buildings of any height and size. However, we argue that the problem is much more severe in tower buildings because of two interacting factors unique to them: First, the maintenance costs per square meter are higher in tower buildings than in lower ones, as explained next. Second, tower buildings inevitably house a very large number of owners and are thus more susceptible to market failure than low-rise buildings, as elaborated in Section 5.

Costs of maintenance by building heights

The maintenance problem in tower buildings is also governed by engineering reality:

Contrary to conventional wisdom, despite the larger number of residents that share the services of a single building, the maintenance cost of the common areas per square meter *rises* with the height of the building, rather than drops. Tall buildings are expensive to operate – the taller, the more complex (though not quite in a linear manner). This holds despite some savings due to the existence of "economies of scale" (for example, a large number of households can hire the same doorperson). Let us look at some numbers. They are based on simplified assumptions about apartment prices, timeframes, and interest rates on financial investments. Table 1 presents a simulated calculation of the average annual maintenance costs per square meter of floor area of level 1 and 2 operations. The computed cost level is somewhat conservative as it assumes a condominium tower that offers only basic services: no pool, gym, conference rooms, doorman, and other frills. It is likely then that the presented numbers underestimate actual costs in many advanced-economy countries. Also, the real numbers of course vary from country to country. However, the absolute numbers are

[9] By contrast, Level 4 maintenance refers to upgrading the building as a whole. It is therefore likely to be highly visible. However, it is rarely undertaken and, in any case, not pre-budgeted.

less important than the relative costs by building height. The dramatic finding is that the cost per square meter of a tower building with 40 floors may be about 4 times the cost per square meter in a "regular" mid-rise building of 3-5 floors. The equivalent cost for a tower of 21-30 floors is about 3.5 times that of the middle-rise building. The cost of the mid-rise condominium is especially low because the mid-rise condominium does not have complex machinery to maintain and often does not require the services of a specialized maintenance company (we assume here that none has been engaged).

Total monthly 3- 5 **floors** 10 **- 20 floors 21-30 floors 31 -** 40 **floors expenses in EU**

Per sq. m. in 0.5 * 1.5 1.7 2.2 **EU** **Table 1: An assumed example of highly-conservative annual costs of maintenance – levels 1 and 2 – of a no-frills condominium building by (selected) height levels.**
Source and details: A. Warsawski (2003) *****Assuming that no maintenance management is hired.

Longterm maintenance costs

We further conduct a rough simulation of anticipated level 3 and 4 maintenance costs. Consulting with engineering experts, we assumed a residential tower with 21-30 floors and 120 units. The experts base their estimated per housing unit cost of maintenance on the assumptions that each unit is 100 square meter and that previous maintenance works are properly made. The costs may of course differ from country to country and even from city to city depending on the cost of labor, taxes, parts etc.

Table 2: Costs of future maintenance investments of levels 3 and 4 (without discounting)*

age of building	**10-15 years**	**15-20 years**	**years**
Additional costs per apartment	240EU	480 EU	840 EU 2080 EU

*Assuming a 21-30 storey tower with 120 units each of 100 sq. m. For the full cost calculations see Alterman (2009): 58.

Table 2 shows that the costs per housing unit of periodic maintenance activities increase steeply with the building's age. As explained above, some of the higher capital costs are due to the engineering attributes of tall buildings. The willingness to pay the higher one-time cost is the most susceptible to the free-ride syndrome (this issue is further discussed in section 5). Where so many owners are involved, one can anticipate unwillingness to pay even though the one-time cost seems low relative to the benefit. If a reserve fund is not established in due time, collection of these sums is likely to be prohibitive at the relevant point in the future. If

the total anticipated costs of levels 3 and 4 maintenance are summed up, they may constitute a significant additional cost above the initial price of the apartment: If the initial price is "affordable," the longterm maintenance cost will be significant in relation to the initial cost, whereas if the initial price is very high, the longterm maintenance cost will be less substantial in relation. Herein lies the ostensible attractiveness of an initial capital fund: Where a reasonable alternative investment is available, the required initial capital fund may be relatively small as it is likely to gain considerable interest over the years until it is expensed for maintenance. However, many buyers might still not be willing to put up such an investment, small though it may be relative to the value of their apartment; some regulation would have to require them to do so. This is one aspect of

market failure that is inherent in condominium towers, as will be discussed in Section 5.

Implications for Households of Different Income Levels / Apartment Values

Tables 1 and 2 carry implications not only on the financial investment level. They bear important socio-economic implications as well. From Table 1 we learn that the height of buildings, where condominium apartments are housed, can make an enormous difference in the level of ongoing expenses. Holding the housing services fixed, mid-rise condominiums are inherently more affordable than tower condominiums. While at EU 220 monthly for a 100 square meter apartment in a 31-40 no-frill condominiums tower, the annual ongoing maintenance cost is still ostensibly affordable for a wide range of household income groups, there are two problems that usually render tower condominiums much less affordable than the numbers imply.

First, a reality check leaves our calculations largely in the theoretical sphere because in many countries, including the USA, Canada and Britain, condominium towers with only basic facilities and services are a non-existing breed. Most such towers tailor to the rich, have swimming pools, 24 hour doorpersons, and other luxury services. They typically charge $600-$1400 in monthly fees is several fold our calculations of the basic costs.

Second, if viewed from the perspective of lower-middle and mid-income families in many countries, the costs we calculated constitute a significant part of the average salaries of such households. Consider that the household usually also carries a significant monthly expense as a mortgage payment on the condominium unit, the maintenance fees become an additional burden, partially unanticipated. Middle-income families, with the vicissitudes of employment and salaries, may view payment of current and especially long-range maintenance fees as a lower priority compared with the other commitments on their tight household budget.

The next section details and explains the various types of market failures inherent in condominium towers.

5. Market failures in longterm maintenance Three types of market failures potentially emerge in the context of high-rise maintenance: free-riding by the individual co-owner within a given condominium tower; free-riding by the co-owners of a given tower vis a vis the external neighborhood context; and buyers' incomplete information with respect to the future cost of maintenance.

Free-riding by the individual household within the building

Consider the following simplified example of a high-rise building consisting of 100 apartments. Suppose that the physical condition of the building now requires a maintenance investment at a total cost of $100,000. In return, this investment is expected to generate goods and services that may be consumed by all households in the building and their value is $1,500 per household. Yet, suppose that only a subgroup of households within the building, say 60 households, are each willing to participate in covering the maintenance costs, while the remaining 40 households decline any request to invest in maintenance.

Under this simplified setting, representing a common structural situation in high-rise condominiums, an efficient maintenance investment fails to materialize. The sum of $100,000 required for maintenance produces goods and services whose "social" value equals $150,000 ($1,500 per households multiplied by 100 households). The maintenance investment is therefore economically efficient. Had all households been willing to share the cost of maintenance, they would have each gained $1500, which is 50% greater (in this case) than their per-household cost of $1,000. However, only 60% of the households are willing to participate in the allocation of the maintenance cost, and thus each of them is required to bear a cost of $1,667 ($100,000 divided by 60 households). This sum is greater than the value of their individual produced benefit (of $1,500 per household). Consequently, even those 60 households, who favorably support the maintenance investment, will opt to reject it under the prevailing conditions. Hence, the investment in maintenance, despite its economically efficient attributes, will not be carried out.

This simple example illustrates the fundamental behavior of individuals that, in general, emerges in contexts associated with public goods – in our case, maintenance of a highrise condominium building. One may argue that dividing the $100,000 cost of maintenance among all 100 households (thereby imposing a cost of only $1,000 per household) should have encouraged each household to participate in the investment. However, here is where the free-riding behavior arises, namely, that the free-rider individual exploits the non- excludability property of the public good [10] – the benefits of the maintenance of the high-rise building. While the benefits from the investment are experienced by all households in the building, the costs are borne by individual households. As one does not internalize the benefits generated by others (in the sense

that others' benefit is not accounted by the individual), one's common behavior is to refrain from investing in the public good.

The example above may hold for various schemes of costs and benefits that associate with maintenance investments and for different numbers of households as well as different mixtures of tenures in a high-rise building. The question is what are the general conditions that may increase and decrease the extent of free-riding behavior in the context of covering the current and future costs of maintenance of tower condominiums?

It is well-documented [see, among others, Olson (1965), Rodrik (1986), Sandler (1992)] that, holding everything else equal, the number of participants responsible for investing in a public good exacerbates the presence of the free-riding phenomena. Thus, the fact that tower condominiums bring together so many co-owners makes the occurrence of free-riding more likely. This conclusion follows two main reasons: First, when each participant independently selects one's own behavior, then the greater the number of the participants in the "game," the greater the probability that some players will find the free-riding behavior appealing.

[10] For a general discussion of public goods see, for example, Harding (1968) and Cornes and Sandler (1986)]

Moreover, given that participants' behavior is not completely independent of one another, then the greater the number of participants in the game, the more likely it is that the "bad apple effect" surfaces; that is, that one person's free-riding behavior gradually "contaminates" others' behavior [see, for example, Bonacich *et al*. (1976)].

Furthermore, the number of participants relates to the social fabric of the group. The greater the number of households in the building, the less likely they are to maintain a social commitment to one another. This line of logic has also gained important insights from urban sociologists who have pointed out some of the detrimental aspects that may occur if the social bonding is weakened in urban residential areas where anonymity prevails [see, among others, Newman (1972) and Newman and Franck (1982)].[11] Hence, a free-riding strategy is more likely to prevail among a greater proportion of condominium owners in residential towers than in smaller-sized condominium buildings.

On the other hand, compared with rental tenure, condominium ownership increases the chances of households to participate in maintenance costs. DiPasquale and Glaeser (1999) find that homeowners are more inclined to invest in social capital such as

participating in volunteering activities, joining non-professional organizations, and gardening. These authors propose a rationale to their empirical findings, arguing that homeownership, as opposed to tenancy, creates barriers to mobility and exhibits longer tenure duration. It follows that, unlike tenants whose residence in the dwelling unit is often temporary, homeowners are more likely to sustainably consume the fruits of the maintenance investment and to benefit from the value that is generated by the maintenance investment to their property.

One may therefore hypothesize that the greater the share of homeowners at a given time in the condominium tower, the more likely it is that the necessary investment in maintenance will eventually materialize. A mixture of owners and renters in tower buildings may occur in two situations: Either part of the building is in a single ownership and has been designated for rental from the start; or the individual condominium owners may have rented out their units at their discretion. While we do not have evidence by which to assess whether these two modes of rental tenure has a more negative effect on the free-rider problem, we can safely assume that the latter is more widespread and is likely to increase with time as the building ages. Condominium owners in the increasing number of residential towers across the world might find that their household's life cycle or employment base have changed and may decide to rent out their unit rather than sell it. Thus (unless there are special regulations that restrict apartment owners' freedom to rent out their units), over time, tower buildings may experience a rising share of rental tenants. Frequently then, the unit's owners will not be physically present to monitor the maintenance activities and enjoy their positive or negative consequences. While this argument is true for condominium building of any height, we argue that the large leap in numbers to be found in tower condominiums produces a significant difference and functions as a stimulus towards free-riding.

Finally, other things being equal, the incentive to contribute to the investment in maintenance is adversely affected by the cost of the investment, while it is positively affected by the prospective benefit. It thus follows that the under-investment phenomenon that follows free- riding is more likely to prevail in low income environments, where the cost of the investment is relatively higher for lower-income households. This issue is rarely discussed in the

[11] Of course, there are also many positive aspects to high density living, not relevant to this paper. For a balanced analysis see Churchman (1999).

American literature on condominiums because these housing arrangements are

generally associated with households of higher-end incomes. It is, however, an issue of major importance for several reasons: First, even where high-rise condominiums are initially marketed to upper-middle and upper income households, this is unlikely to hold for the entire span of the building's life (several human generations). Second, the current economic crisis, and others that may occur in the future, is likely to affect the capacity of some condominium owners to pay the maintenance costs (as well as their mortgage payments) with all the consequences that this may entail. If many owners are required to sell, the effect is likely to be an accelerated decline in the property's value. Once again, where towers are concerned, the concentration of many defaulted units in a single building is likely to exacerbate the downwards effect on the value of the building as a whole, and thus to lead to a gradual replacement of condominium owners with less affluent owners and with a greater proportion of renters.

Externalities and free-riding within the neighborhood context

The level of maintenance of buildings – internally and, especially, externally – affects not only the value of the properties but also the neighborhood quality. The core argument presented above about the free-riding behavior that exists among apartment owners within a high-rise building has an analogy in the neighborhood context as well. Each building benefits from the maintenance investments made by the surrounding buildings (the positive externalities they produce). At the same time, the condominium owners may not internalize the entire extent of benefits that their building grants to the neighborhood by means of their own investment in maintenance. Thus the free-riding behavior applies also at the neighborhood level, among buildings. In other words, even if each of the high-rise buildings were to be owned by a single owner (and thus the free-riding behavior within the individual building would be avoided), that owner would tend to free-ride on the investments of the neighboring buildings. The outcome is under-investment in externally-oriented maintenance compared to the socially required optimal level.

The problem of negative or positive externalities is not unique to condominium towers. But because of their sheer size, visibility, and the concentration of high-levels human, vehicle and machine activities, the negative urban impact of deteriorating residential towers are likely to be greater than of low or middle-rise buildings that house an equivalent number of households. The visibility of the building's design, for better or for worse, is a major externality, as are environmental effects in which tower buildings "specialize" such as wind tunnels, sun blockage, reflection, and in some societies – social alienation, difficulties in security for children etc.

The free-riding phenomenon in the neighborhood context (leading to under-investment in maintenance on the neighborhood level) is expected to intensify with the number of residential towers in the neighborhood, the share of tenants (compared to owners), and the cost of maintenance. It is expected to diminish with the share of homeowners as well as the expected benefits perceived by the unit owners to be generated by the maintenance investment.

Thus the free-riding problems described above in the context of both the individual building and the entire neighborhood emerge as by-products of the multiple "co-responsibility" entailed by jointly producing public goods and services.

Incomplete information

Even in the absence of the free-riding phenomena, under-investment in maintenance is likely to appear in residential towers due to the imperfect flow of information in the market.

As the figures in Table 2 show, not only does maintenance require an ongoing investment, but also the cost of the investment tends to rise over the lifespan of the real estate asset. This feature of the maintenance investment, however, is often unknown to the reasonable buyer of a unit in a condominium tower (and recall that the maintenance costs rise with the building height). The information problem differs somewhat between buyers of newly built units (in the primary market) and buyers of second-hand units (in the secondary market).

The first buyer of a new condominium unit, not being aware of the exact prospective maintenance costs, is likely to under-value the total real cost that will be associated with purchasing a sustainable property. Looking at Tables 1 and 2 together, one sees that the costs of maintenance are many times higher in very tall buildings compared with walk-up or 3-5 story apartment buildings, and also many times higher as the time span increases. Therefore, in the absence of special regulation that obliges the seller to calculate the exact prospective maintenance costs that would be required over the life of the building, and clearly disclose them to the buyer in the primary market, the extent of underestimation by the buyer is likely to be substantial.

However, the undervaluation factor in the primary market, serious though it may be, may be easier to calculate and therefore to regulate than in the secondary market. Households who purchase second, third or fourth-hand units are likely to encounter an exacerbated problem of information. This problem applies not only to future

maintenance costs as in the case of buyers of new units, but also to maintenance works that are overdue from the past or improperly conducted. We refer to the latter as "intergenerational" asymmetric information failure. Current owners selling their unit have an interest not to divulge both anticipated future maintenance expenditures and past unmet maintenance needs. Buyers generally find it difficult to collect the information that allows them to correctly compute the present value of all such costs and thus are unable to assess the de facto total purchase price.[12] The phenomenon of imperfect information is likely to lead to maintenance under-investment and considerable deterioration of tower condominiums, unless it is considerably reduced through effective regulations. Each of the two subtypes of imperfect information – the prospective for new buyers and the prospective and retrospective for second-hand buyers – merit somewhat different formats of regulations.

The next three sections – 6 through 8 – focus on two prototypes of condominium laws. Section 6 provides the rationale for the selection of Israel as the prototype for "simple" condominium laws and Florida as the prototype for "enhanced" laws. The following two sections take a closer look at each of these two laws and the instruments they contain – or lack – for combating market failures with respect to longterm maintenance. Seeking to learn more on the effectiveness of these instruments in practice, we conducted modest-scale interviews with informants in each jurisdiction.

6. Two types of condominiums laws: simple and enhanced

[12] For a formal analysis of maintenance under asymmetric information se Ben-Shahar (2004).

Condominium laws differ from country to country. However, since we have not done a systematic worldwide survey of condominium laws, we are unable to identify which law deserves the title of the "simplest" or the "most enhanced". Instead, we choose two "prototype" laws in two jurisdictions, where we have contextual knowledge and were able to hold some field interviews. The two laws represent two sides of the spectrum (but not necessarily the extreme edges): the simple type of condominium laws on one hand and the more sophisticated type on the other hand.

The condominium laws prevalent in the USA and Canada are of the enhanced type and are here exemplified by Florida. Although there are differences among them (among the

states in the USA and the provinces in Canada), they have enough in common to tag this group of laws as "enhanced" condominium laws. There is a socio-economic reason behind this. In both the USA and Canada, the term "condominium" is often used as shorthand for "rich people's luxury apartment." Since the emergence of the suburban movement in the 1940s, the housing tradition in the USA (and Canada) has seen a social preference for single family (or at most, double family) owner occupied homes. Apartment living was largely in rental tenure. Although condominium ownership of apartment units has become more popular in recent years, it has not replaced self-ownership and rental tenure modes. Condominium ownership in the USA and Canada serves a specialized sector in the housing market – usually upscale- income households, often with no children.

In contrast, condominium laws prevalent in Mediterranean and some other countries may be called "simple". Here they are typified by the Israeli law. The upper-income connotation so strong in the USA and Canada that it has overtaken the very term "condominium" is absent in many Mediterranean countries. Condominium living encompasses a broad spectrum of households in urban areas. The housing units and the apartment blocks vary greatly in economic value, size, level of services, physical design, and level of maintenance. Some are simply constructed and offer minimal services. Others offer luxury and prestige. All socio- economic groups but the very poor may be served by condominiums. In Mediterranean countries, most of the existing stock of condominium buildings is not in towers but rather in "walk ups" of 2-5 floors or in more modest high-rise buildings.

The two laws and their jurisdictions are comparable because they are both democratic regimes and both belong to the same legal "family": the common law tradition.[13] Florida, like most US State law, is part of the common law tradition. Israeli property law too, like most Israeli law, has a common law foundation. Property law dates back to legislation enacted during the British Mandate over Palestine assigned by the League of Nations. This jurisdiction lasted from 1921 to 1948. The legislation enacted by the British Administration over Palestine drew heavily on British common law, as exported to the colonies. Once the State of Israel was established in 1948, it adopted almost all the existing legislation and its common-law foundations.[14]

Although there are differences in gross domestic product per person between the USA and Israel (Florida is considerably higher), both jurisdictions belong to the group of advanced

[13] For a general discussion of legal tradition in comparative research see: Glendon, Carozza and Picker

(2007), pp. 23-49. [14] Although some Continental legislative foundations were later also introduced (Glendon, Carozza and Picker (2007): 968-970, the present Israeli legal system still bears the distinctive attributes of a common law system, especially in long-existing areas of law such as property.

economies. The socio-economic difference between them in fact permits us to extend the span of our conclusions to more jurisdictions within the general group of countries.

7. Simple-type condominiums laws: the example of Israel[15]

As in many countries in the Mediterranean regions, the Israeli law was first enacted when most condominium buildings were low or middle-rise. Wide sections of the population reside in apartment buildings under this type of tenure, including low income groups (all but the very poor). The prevalent building heights across Israeli cities until the late 1990s were mid- rise of 3-5 stories. The high-rises of the '60s – usually remained at 8 – 12 stories. All but a few[16] are condominiums (see Ill. 2 and 3). The steep leap in the height of residential towers since the late 1990s came in steps: First came towers of 20-plus floors, then 30-plus floors, and, more recently, 40-plus floors are gaining popularity. The same condominium law applies to all shapes and sizes of condominiums buildings. The question is, to what extent are the tower condominiums likely to be able to cope with the fortified market failures embedded in them?

The Israeli law governing condominiums The Israel Real Property Law of 1969[17] incorporated an earlier statute concerning condominiums dating back to the 1940s. The law sets only two simple conditions to define a condominium: The building must have at least two separate units designed to serve for housing, business or the like, and the building must be registered with the state registry of condominiums.[18] The law defines common property in a way similar to condominium laws elsewhere, as comprising the ground areas, roofs, external walls, foundations, staircases outside private units, elevators, utility rooms and the like.[19] The owner of each unit is assigned a non-specific part of the common property and any transaction in a unit also applies to the common property.[20] The statute's criterion is that the proportion of common property is calculated according to the relative portion of each unit's floor area out of the cumulative floor areas.[21] Under some conditions, the law permits designation of a specific part of the common property – for example, the ground areas adjoining ground-floor units or parts

of the roof directly above the top-floor unit – as attached to a particular unit.

The concepts discussed above comprise the essence of condominium property. They are quite basic and are probably typical of many condominium laws worldwide. The differences between the "simple" and "enhanced" condominium laws discussed in this chapter are more apparent in the management aspects to be discussed next; and it is these that pertain most directly to the maintenance issue of tower condominiums.

[15] The discussion here applies to Israel in its international borders, and not to the occupied areas. A different set of laws and practices applies to the latter – those areas held by Israel and those administered by the Palestinian Authority.

[16] The few exceptions are not buildings commercially built for rental but rather institutional buildings that cater to special groups, built either with government support or commercially (such as for the elderly).

[17] Laws of the State of Israel July 27 1969, Number 575, p. 259 (in Hebrew) and its many amendments since then. [18] Section 52 of the above law. [19] Ibid. [19] Ibid. [20] Section 55 [21] Section 57.

Ill 3: The slopes of the city of Haifa enable viewing generations of condominiums.

Those in the front are mid-rise built in the 1960s, currently for low-income[22]. Higher on the slopes is the middle-income Yizraeliya neighborhood (apartments are usually tailored to 2-3 children). The 8-16 story buildings date back to the 1970s and 1980s. On the right are 20-plus storey towers built in the 1990s. The older buildings are today affordable to mid- and low-middle income families. All buildings are usually self- maintained. See a close-up of a building in that neighborhood in Ill. 4. [Picture taken March 2009].

Regarding cost sharing, all that the law specifies is that each unit owner must pay its share of maintenance and management costs necessary for the "proper maintenance" of the building. Proper maintenance is defined as activities necessary to keep the building in its original condition plus any improvements made with time. The cost share is proportionate to the unit's floor area out of the total floor area, unless the regulations adopted by the co-owners specify otherwise. The law devotes a single clause authorizing the condominium to hire a professional maintenance corporation. The underlying assumption – and the practice (as discussed below) is that condominiums are largely self-managed.

The Israeli law makes the management of condominium buildings as simple and easy as one could imagine. There is no obligation to form a separate legal entity – a separate corporation or association; the law itself grants the elected representatives of the condominium legal

[22] The buildings in the foreground are located in a poor neighborhood and owned by low-income households with large families. The unit values are low (the water tanks on the roofs are heated via solar energy, legally required and lucrative to install).

authority to represent the condominium wherever necessary, such as to sign and enforce contracts for the necessary maintenance activities and take legal actions against unit owners who have defaulted in payment of maintenance fees. The elected representatives are also authorized to open a bank account in order to manage the money collected and to carry out the necessary expenditures for maintenance. However, they are unlikely to have legal authority to carry out ancillary economic activities such as to buy real estate.

Ill. 4: A 16-storey condominiums typical of the older buildings in the

Yizraeliya neighborhood in Ill. 3 (not visible in Ill 3). These were built in the 1970s as standard middle-income apartments for households with 1-3 children and have suffered only minor decline in value.

Rules of governance are set by default regulations called Common Condominium Regulations. These apply until or unless the owners in a specific condominium adopt a different set of regulations and register them with the State Registry of Condominiums. In practice, the majority of condominiums in Israel – which means the majority of households in the country –choose to remain with the default regulations.

The Common Regulations specify that a general assembly of all unit owners must be convened at least once a year to set the maintenance fees and elect a body of representatives of between one and five members for one year. This number does not depend on building size or on number of units. The general assembly approves expenditures and similar decisions "entailed by life as neighbors[23] in a condominium." The representatives may convene more frequent meetings and must do so if a third of the owners so demand. One of the representatives will be the treasurer who must make a financial account every six months and bring it to the annual general assembly.

Most important is what the statute does not include. First, unlike the "enhanced" type of laws, it does not oblige the condominium to establish a reserve fund for future maintenance

[23] The Hebrew term "*ha-shhenut"* could be translated dryly as "living in proximity" and, more emotively,

as "neighborliness". There is no official English translation of Israeli legislation.

expenditures (levels 3 or 4). Indeed, the word "fund" is not mentioned, though the condominium is fully empowered to create such a fund, whether on its own or by means of a management corporation. Many condominium buildings indeed encounter problems when they need to collect periodic lump-sums for maintenance actions even of level 2, not to mention level 3 activities. More on this in the next sub-section, on practice.

The second topic, where the Israeli law grants condominiums only weak powers, is enforcement for defaults in payments of fees. While the law obliges every unit owner to pay its share of the maintenance fees – whether current or anticipated future costs – it does not grant the condominium special enforcement powers beyond those available as remedy in civil action for regular debts. Under Israeli law, the condominium entity does not have authority to place a lien on the private unit as security for the maintenance fees owed.

If a unit owner defaults in payments of the maintenance fees (something that happens often), the condominium may submit a claim to the State Inspector of Condominiums (there are also regional branches). This national statutory officer is empowered to hear the sides, request professional appraisals etc. Inspectors usually try to resolve conflicts in alternative ways but if necessary, they also serve as a tribunal. Their judicial decisions have the powers of a magistrate court yet the procedures are streamlines. The Inspector's powers encompass the regular civil means of enforcement of civil contractual obligations. These do not usually include direct powers over the real property unless other means have been exhausted, especially if the unit serves as the owners' residence.

The Knesset (Parliament) did revise the legislation many times, but these amendments have focused on issues other than maintenance and upkeep. The basic structure of the condominium organization, its basic powers, and the issue of collection of fees has not been altered for decades. Concern for other urban and social issues have prompted the amendments – each representing a view about the need to update buildings on one specific issue. Here are several interesting examples: In order to install an elevator to update an older walk-up building, consent of all unit owners was necessary; the amendment subsisted a 2/3 majority.[24] The growing social awareness of the need to enable apartment owners to adjust their units for the needs of handicapped access led the Knesset to legislate an even more revolutionary change: Staircases and similar common property leading to a given apartment can be altered to make them accessible to handicapped persons without requiring the consent of other condominiums owners. A

similar rule now holds for the introduction of solar energy heating and for disconnection from collective oil/gas heating.[25]

These examples show that the Knesset's responses to these needs have all been ad hoc, and the solutions were to provide a special majority of owners to permit the adaptation of the building to the new need. To date, there has not been any attempt to establish a general rule of less than full consent of the owners to enable all future types of updating of buildings. Nor has the Knesset revised the condominium legislation to address the financial mechanisms for maintenance, the reserve fund, and the issue of enforcement. However, as we shall explain in the Conclusions, we do not necessarily recommend that such changes be introduced with only considerations of proper maintenance in mind.

Beyond the 1960 Real Estate Law, there is no other national legal mechanism that generally regulates maintenance in condominiums and in other forms of ownership of buildings. The

[24] Amendment 19 (1966) to the Israel Real Property Law. Available on the internet (Hebrew only) on the Knesset site: www.knesset.gov.il [25]Respectively: Amendment 10 (1987) and amendment 23 (2001).

1965 Planning and Building Law does not directly empower to impose maintenance responsibilities on house owners, nor do the laws that regulate construction quality, and contracts between developers and residents.

Condominium maintenance in practice in Israel

In practice, while conflicts among condominium unit owners are frequent, most are either resolved at the social level, without the Inspector's help, or are left unresolved. On this issue there are probably major difference from one society to another – but we doubt that there is much empirical research to rely on. In Israel – a highly urbanized condominium-based country – the capacity for self-resolution of conflicts in condominium buildings is an all- important resource that impacts much of city life. This capacity probably varies greatly along a slate of social, economic, and physical variables. Where the inspector does take enforcement action for defaulted payments, he or she is likely to take social needs into consideration as in Israeli society and law, housing is regarded as a primary need. Israeli courts are unlikely to approve an action

that deprives people of their home (usually meaning, a condominium unit). The courts usually do not order that a unit is to be sold to pay the fees owed to the condominiums, unless all other means have been exhausted and the unit is not the person's primary residence. The court may also view the value of the apartment unit and the very act of ordering its sale as highly disproportionate to the sum owed for maintenance. Therefore, Israeli courts are unlikely to issue such an order except in very extreme situations.

Despite their modest enforcement powers, the hundreds of thousands of middle-rise condominiums in Israel have somehow been operating for decades in a tolerable way regarding maintenance levels 1 and 2. The amount needed for urgent level-2 maintenance works is usually collected, sooner or later. At times, condominium owners "swallow" some free-riders, not without a conflict. It is "in the culture" for the majority of owners to be occasionally willing to tolerate households who are temporarily unable to pay. However, lower income neighborhoods are an unsolvable problem. There, the residents may not have the sufficient resources to pay even for level 2 maintenance (level 1 is often carried out in these communities through self help). If there is no public program in place, then the buildings and entire neighborhoods may undergo serious physical deterioration (while there is no general public mechanism to invest in the maintenance of condominiums owned by low income households, there are occasionally some place-based programs to that effect). We later continue with a discussion of the practice regarding maintenance of levels 3 and 4, but first there is a need to solve a mystery that prevails regarding the main maintenance issues on any condominiums' agenda – those of levels 1 and 2.

What is the mechanism in Israel that operates to somehow compensate for the weaknesses in the legal mechanism, which is not well designed to mitigate the built-in market failures even in mid-rise condominium apartments? The secret lies in the informal social norms that prevail in Israel and some other societies along the Mediterranean. (Since we are not aware of empirical research on this topic, our conjectures should be viewed as hypotheses for further research.) Where there are a reasonable number of owners – say, up to 30 or so – the social expectation to pay one's share of the maintenance fees is the major mechanism that operates to mitigate the free-riding phenomenon and to unblock some of the inhibitors to information flow. Where the number of households is such that people know each other and communicate informally on a social basis, free-riding cannot enjoy the social protection of anonymity.

In search for an intuitive substitute for the mechanism of social norms, absent in tower condominiums, many new buildings have in recent years been hiring the services of

maintenance corporations. These companies have emerged in response to this need, but none have a tradition or track records. Meantime, they serve as a panacea. A set of field interviews that we conducted in 2005 with several leading companies has shown that none has discovered a "patent" of how to solve the free-rider conundrum. None has tried to establish a fund to cover longterm expenses and had it so suggested, it would not have had any chance of succeeding. At present, the main focus that condominium representatives place when they compare offers by competing corporations is on the least expensive package of services, not on the longterm program.

Ill. 5: On the left: Luxury condominium towers in Tel Aviv. It will take many years before their maintenance level declines significantly because so long as the value of the apartments remains very high, most residents will have the resources to pay, and thus at least some aspects that exacerbate market failure in maintenance are eliminated. Such towers are likely to hire a management company. Ill. 6: On the right: New lower-middle income condominium towers built in 2000 in a field town (Beer Sheva). Will these towers look like an updated version of those in Ill. 4 within 20 years?

Thus, as may be expected, in practice, maintenance levels 3 and 4 are the most susceptible to market failure in all condominium buildings in Israel, and one may anticipate that this will occur in the future with the currently sparkly-new towers. Levels 3 and 4 are the ones that, if not well attended to, also have the most serious negative externalities on neighborhoods and cities. Some maintenance operations of levels 3 and

4 involve building facades and gardens. Unit owners may feel that investments in these works are not likely to be fully reflected in the market value of their apartments. They may also perceive building facades and gardens as more a matter of aesthetics than a matter of urgency in terms of health and safety.

The consequences are visible to any visitor to Israeli cities. The maintenance of the facades of buildings and front gardens in older neighborhoods – all but those in top-scale areas – is much less than is desired. But here lies a real-estate paradox: So long as the condominium buildings are middle-rise and with a reasonable number of owners, the effect of poor maintenances of facades and gardens on price levels may depend more on the surrounding neighborhood values than on the exterior of a single (mid-height) building. This real-estate phenomenon surprises many visitors to Israeli cities: Buildings that look rather ugly from the outside, if located in otherwise attractive neighborhoods and urban areas can retain relatively high real estate values so long as the private residential units are well-kept and the common internal spaces are in a reasonable condition. This tempering effect is unlikely to hold for condominium towers overshadowing the neighborhood.

Level 4 maintenance activities – those typically required once in 20 years and more and entail large expenditures – suffer the most from the absence of a legal obligation to account for long-range future expenditures and to establish a maintenance fund in Israeli law. Thus, level 4 updating activities rarely occur in practice except in a few extremely attractive real estate locations or as part of an occasional special public program.[26] Both types of situations are rare because each condominium – or each government operation – must find a mechanism to overcome the forces that lead to market failure, and these operate more vehemently where expenditures are in lump sums and are significant, as in the case of level 4 activities.

The social forces discussed above that temper market failures in condominium maintenance apply largely to middle-rise buildings with a reasonable number of owners. As we argue above, because in tower buildings the number of owners is very large and the longterm costs of maintenance are inherently much higher than in the middle-rise buildings, tower condominiums are more likely to suffer, inevitably, from all the types of market failures discussed above – and "with a vengeance". As noted, such towers are springing up all over Israel, not only in places where the real estate values are very high, such as in Ill. 5. While the architecture of the tower in Ill. 5 may not be distinguishable in this picture from Ill. 6, the location and socio-economic characteristics of the residents determine their future. There are hundreds of similar towers – many

even higher – already erected or approved to be built in the next few years. They are springing up not only in areas of high demand, but also in cities such as Beer Sheva (see Ill. 2 and 6), where there is no ostensible justification in terms of real estate prices or open space preservation. [27]

In fact, in a few years' time, some of the residential condominium towers built for higher-income groups are also expected to trickle down to middle-income households. Under the present condominium legislation and given the real paying capacity of such households (who, among other expenses, usually pay a high mortgage payment on the same apartment), the new towers tailored for middle-income groups such as in Ill. 7 are likely to deteriorate the fastest. The extreme signs of decline may not be as strikingly visible on the exterior as in Ill.

[26] For example, an effective leader or an enterprising private contractor may be able to convince individual owners to participate despite their free-riding tendencies. Or a public project may extend some financial incentives. [27] Calculations conducted by Alterman and Churchman (1998) show that mid-rise apartment buildings or moderate high-rise development can achieve adequately high densities and efficient use of scarce land resources. Towers do not necessarily achieve a more efficient use of land.

8 because current architectural design does not expose the external signs of deterioration as it did in the 1970s and 1980s. However, the effects of deterioration of elevators, staircases, gardens, and the like will probably be just as dramatic – perhaps more so – because the new towers have shifted to new levels and contain a much larger number of owners. The decline in the relative place held by such towers on the housing price ladder may be quick to follow.

The prospect tragedy for Israeli cities is that, unlike mid-rise condominiums, towers are like sealed machines. Future urban-regeneration programs will find it difficult to invent a program that would offer additional development rights on the roofs or side wings of the towers as incentives to upgrade the buildings. And, of course, demolitions are so unfriendly to the environment!

The search for surrogate legal mechanisms by local governments

The shortcomings of the Israeli condominium law for managing tower condominiums

gradually became apparent to some Israeli planners, especially since the latter 1990s when the number of tall residential buildings increased steeply. In addition to the maintenance issue, developers and residents occasionally also found it difficult to cope with the apportionment of common facilities such as swimming pools, sports facilities, and concierge services. The law offers only one basis for allocation of common ownership and costs – by floor area and in some cases this may seem inappropriate or unjust.

The main emerging concern about tower condominiums revolves around the longterm maintenance issue.[28] In a sporadic manner, individual local Planning and Building Commissions and local authorities around the country began scurrying around for any legal mechanism whereby – they hoped – they could ensure that a newly approved residential tower would be well-maintained. Even though the findings of the research project on which this paper is based (Alterman and Zafrir 2003; Alterman *et al* 2009) had not yet been published, some local governments indeed foresaw the emerging problem (though, in general, underestimated its magnitude).

Most of the local planning commissions who identified the problem (that we know of) looked for the solution along one and the same path: the panacea of the maintenance corporations. They believed that if they were to find a legally binding mechanism that would ensure that the condominium owners would be obliged to make an initial contract with a management corporation, sustainable maintenance would ensue. Without any national legal platform to aid them, the local planning commission and other local government agencies began to experiment with alternative legal instruments.

Modest-scale field research that we conducted in 2005 showed three such uncoordinated experiments that local governments had thought up – all in the same direction, but with different means:

- Insert a condition directly into the *building permit* stipulating that the building may not receive a "completion certificate" (and so may not be transferred to the buyers)

[28] One of the authors, Rachelle Alterman, has led a research project and a subsequent media-based effort to inform decision-makers, planning professionals, and the broader public about the irreversible mistakes made in approving tower condominiums housing (there are never any rental ones in Israel) for social groups other than upper-income. The reasons are the focus of this paper. The "campaign" had produced several policy-oriented publications for local decision-makers and practitioners: Alterman and Zafrir (2003); Alterman *et al* (2009). The key recommendations are part of a larger team report on high-rise construction in general led by Arza Churchman (Israel Ministry of the interior, 2003). An English summary is available.

before the developer or the condominium representatives sign a contract with a management company;

- Insert a condition into the *detailed plan* (equivalent to a planning permission in the UK and zoning or planning unit development in the US) stipulating that the developer (or the condominium representatives) must sign a contract with a management company;

- The local planning commission, or the municipality, will sign an agreement with the developer *outside* the statutory planning process (where it has discretion). The agreement will stipulate the obligation to show a signed contract as above as an external condition to be met so that the planning commission will exercise its powers and approve a plan and building permit.

None of these strategies provide a sustainable solution to the problem. All orbit around the "panacea" of a maintenance corporation, solving neither the free-rider problem in willingness to pay, nor the asymmetric information problem with respect to past and future costs. None of the three ideas tackles the problems of the expenditures needed in the future for maintenance levels 3 or 4. Why do these solutions fall short?

The first suggested remedy relies on the building permit. This solution is attractive to local governments because under Israeli law it is totally under their powers and it comes at a stage when the developers are "ripe" financially and eager to get the authorization to start building. This solution is the most flexible and seems to be able to account for each new tower before it is too late. However, the building permit itself is a short-range, self-terminating certificate (the legality of the condition itself is problematic, and is discussed together with the next item).

The second instrument is better in one aspect: It relies on a more permanent legal instrument – a statutory plan. However, since approval of statutory plans for major projects takes years and one cannot "retrofit" approved plans without great financial consequences to the municipalities, many tower projects will be able to "escape" the new proposed rules, if such were adopted. Furthermore, in current Israeli law there is some uncertainty about the legality of conditions of this type in statutory plans. Since there are no statutory guidelines specifically authorizing such a condition to be inserted, it remains for case law to remove the fog.

The third instrument – a contract outside the statutory instruments – is legally somewhat more robust since it stands on contract law. However, it may or may not be a better instrument for ensuring longterm maintenance – that depends on how enforceable the contract with the developer proves to be in the long-range. If the

developer defaults, how will this affect the longterm maintenance of the condominium building? Furthermore, the nature of developer agreements (or "exactions") in the planning laws of most countries, is that, unless they are specifically authorized by statute (and that is rare in comparative terms and does not hold in Israel), the legal status of such agreements is in the "grey zone" and must be determined case by case (Alterman, ed. 1988; Alterman, 1990). However, even if such a condition were to be legal, its wisdom is dubious.

Even if the legal hurdles were overcome, all three instruments proposed by local governments are self-delusions. Even if the contract that the developer is required to sign with a management company is to be ruled legal, the management company itself is most unlikely to survive more than a few years. There is nothing in Israeli law to oblige maintenance

corporations to stay in business or to protect the buildings they serve against their bankruptcy. The very fact that many local planning agencies around the country continue to fall for this illusion goes to stress their degree of concern.

Little help from central government and the parliament (Knesset)

There is no doubt that local governments on their own cannot be expected to tackle a major national problem such as the one outlined, at the scale encountered in Israel. The national government or the parliament (the Knesset) has not yet stepped in. However, two pre- legislative initiatives have taken some modest steps. In summer 2005 a then-member of the Knesset[29] prepared a rough draft of a bill that would have revised the Law of Sale (Apartments)[30] (i.e., condominiums) to oblige developers to state in the sales contract that the maintenance and management of a condominium building with over 40 units will be carried out by a management company and to state what that company would be committed to undertake and at what price. The bill would have required each condominium regulations to insert an equivalent clause as well. However, the draft bill did not go any further. This initiative is too rudimentary to be assessed. Yet, its grounding in the Law of Sales (Apartments) opens up an interesting direction of thinking. In 2008, another Knesset member[31] stepped in, taking a different direction. While he too focused on the management company concept, he sought to anchor the obligation to contract with such a company by means of the condominium law, not the sales law. This, to us, seems a more straightforward way of tackling the issue. This initiative is the first that also begins to think about the problem of how to oblige

condominiums to establish a longterm fund. Both initiatives, however, are still a long way from being submitted to the Knesset for enactment. While the first legislative initiative imposes the obligation only on condominiums with large numbers of units, we are unsure about the second bill. As we emphasize in the concluding part, it is important that condominium laws would distinguish between "regular" and tower condominiums

Despite its many shortcomings, the "simple" type of legislation that Israel exemplifies does have some important positive aspects that have received too little attention from academics and policymakers. We return to this point in Section 9, where we decipher why Israeli legislator and policymakers may have hesitated to discard the current law in favor of the "enhanced" version, such as Florida's condominiums law, to which we now turn.

8. Enhanced condominium laws: The example of Florida

Among the US States we choose Florida because, as the ultimate "sunbelt state", it has been attracting an especially high demand for condominium apartments for a relatively long time. In recent years, more and more Florida condominiums are in tower buildings. Many of these cater mostly to small households with no children at upper-middle and upper level income levels (see Ill. 7).

[29] MK Ilan Leibowitch of the Shinui Party (that ceased to exist in early 2006). [30] Laws of the State of Israel 5733 [1973] p. 196. [31] M.K. Stas Misezhnikov (at the time chair of the Knesset Finance Committee). His initiative is backed by a report prepared by the Knesset policy research arm. Unfortunately there is no English translation. The Knesset research report is available in English at: http://www.knesset.gov.il/mmm/data/docs/m01771.doc

Florida's condominium law falls among the "enhanced" group – though there may very well be laws that are yet more stringent towards the owners in the rules they place in order to dampen the various free-rider tendencies as much as possible.[32] The Florida law is analyzed here in terms of its capacity to regulate against the tendencies that cause market failure and ensure longterm maintenance.

Florida law governing condominiums

The Florida Condominium Statute (Chapter 718 of the Florida Statutes) is 92

single-space pages long – much longer than its Israeli counterpart – and is indeed much more sophisticated. It is clear that in the legislators' minds were not only the rudimentary objectives of establishing a special form of joint tenure and an organizational setup that can effectively operate it. The intricate rules of governance indicate that the legislators also sought to curtail, or at least reduce, the major types of market failures inherent in condominiums.

Ill. 7: Luxury condominium towers in West Palm Beach Florida. (picture taken February 2006).

The Florida condominium law[33] requires that residents take positive action to form an association, as a Florida corporation for profit or not for profit.[34] Unlike its Israeli

[32] The condominium laws of the provinces of Manitoba and Ontario are in some ways more demanding than Florida's. For a quick survey of one important aspect of Canadian condominium laws see Bob Kasian, "Provinces differ on condominium fund study requirements", The Lawyers Weekly Feb 27 2009. [33] Florida Statues Chapter 718 – Condominiums. Available at:

counterpart, the Florida law empowers the condominium association to carry out real estate transactions including buying, leasing, and selling apartment units in the building.[35]

To overcome some of the inherent incentives for sellers to withhold information about prospective maintenance costs, Florida law tries to tackle this issue from the very start. The initial developer is obliged to present to the buyer a detailed calculation of the projected maintenance costs for the forthcoming years. The assessment must be conducted by qualified and regulated experts. All this information must be included along with the usual legal, structural, and mechanical information as part of the declarations that developers are obliged to provide to prospective buyers. The developer must provide the initial bylaws of the condominium association (they can be changed later by the association) and these must be read and signed by the buyers. The entire package of information is usually scores of pages long and its complex contents cannot be understood by a layperson without the help of a lawyer. The bylaws are overseen by a state authority.

It is clear that the Florida legislators, unlike their Israeli counterparts, sought to make a clear distinction between the ongoing maintenance tasks of level 1 and 2, and those that require larger periodic investments. The law draws a clear line between operations that cost up to $10,000 and those above this threshold. In addition to quarterly estimates of income and expenditures, the Florida law obliges the condominium association to make a full estimate of future expenditures.[36] The State's regulatory authority must approve each condominium association's annual budget and estimates of future expenses.

For capital expenditures, the Florida Act requires that the budget includes "reserve accounts." The rationale behind the legislation is clear: If money is not reserved in advance over a span of time, its collection in a lump sum is likely to encounter the "free-rider" syndrome in enhanced dosage. Yet at the same time, the statute authorizes a simple majority of the unit owners to waive the requirement to set up a reserve fund. Thus, the statute's ostensible wisdom in seeking to quell the free-rider effect regarding the long-range expenses remains in part a paper tiger. At the same time, the condominium association also has extensive authority to impose additional fees as needed and to enforce their collection (as discussed below).

Lacking a default set of general regulations, the statute requires that each condominium association sets up its own bylaws. In doing so, it grants each

association extensive powers and flexibility to tailor-fit the assessment formula to various criteria. The statute makes it mandatory for the association to assess *at least* the amount required in advance for payment of all of the anticipated *current* operating expenses and for all of the unpaid operating expenses *previously* incurred.[37] This means that the condominium association is legally

[35]Section 718.111 (9) [36] Section **718.112.**1(f) 2 says: "In addition to the annual operating expenses, the budget shall include reserve accounts for capital expenditures and deferred maintenance. These accounts shall include, but are not limited to, roof replacement, building painting, and pavement resurfacing, regardless of the amount of deferred maintenance expense or replacement cost, and for any other item for which the deferred maintenance expense or replacement cost exceeds $10,000. The amount to be reserved shall be computed by means of a formula which is based upon estimated remaining useful life and estimated replacement cost or deferred maintenance expense of each reserve item". [37]Section **718.112.**1 (g) *Assessments.*--The manner of collecting from the unit owners their shares of the common expenses shall be stated in the bylaws. Assessments shall be made against units not less frequently than quarterly in an amount which is not less than that required to provide funds in advance for payment of all of the anticipated current operating expenses and for all of the unpaid operating expenses previously incurred. Nothing in this paragraph shall preclude the right of an association to accelerate assessments of an owner delinquent in

obliged to make assessments at a level that would prevent a-priori free-riders – that is, the association is not allowed to underestimate the costs. However, the text implies that this obligation pertains to "current operating expenses" meaning level 1 or perhaps level 2 as well, but not necessarily to future expenses. The instructions on what must be included in the assessment also encompass unpaid expenses from the past.[38] Thus, this clause is geared to reducing part of the free-rider effect by making the condominium association responsible for the compulsory assessment – but not necessarily for the full cost.

Perhaps the most important difference between the Florida and the Israel laws lies in their enforcement powers. The Florida statute specifically authorizes condominium associations to place a lien on each apartment unit and to sell it if necessary in order to secure the funds owed by the owners for the maintenance of the building.[39] The associations are third in line of priority for securing their debt, after the local authority and the banks. The association's powers to claim the unpaid fees are extensive, including the powers to impose fines. In exercising most of these powers, the associations are independent; they do not need the authorization of a government agency nor a court order.

Under normal circumstances, when real estate prices are high, the linkage of the payment of the maintenance fees to the apartment units themselves, which characterizes the "enhanced" type of condominium laws, does provide an effective means of enforcement. It acts as a deterrence against default (the owner is likely to lose a lot of money in the process) and at the same time provides adequate security to the condominium association's interests.

Condominium maintenance in practice in Florida

As in the case of Israel, we were interested in knowing more about condominium maintenance practice in Florida and the extent to which the law indeed fulfills its objectives of preventing free-riders and other forms of market failure in maintenance. We held interviews with several persons holding key positions and who are knowledgeable about condominiums maintenance in Florida (however, this is not a systematic statistical sample of residents and experts). We interviewed the president and staff of a leading property management corporation that handles tens of thousands of units in Southern Florida and has branches throughout the USA.[40] In addition we interviewed a condominium developer in the Miami area, two lawyers who specialize in condominium transactions, three real estate agents and several owners in four condominium buildings in different parts of the Miami-Date area.[41] One of the co-authors, Rachelle Alterman, also participated as an observer in the

payment of common expenses. Accelerated assessments shall be due and payable on the date the claim of lien is filed. Such accelerated assessments shall include the amounts due for the remainder of the budget year in which the claim of lien was filed. [38] Ibid. [39] **Assessments; liability; lien and priority; interest; collection.**—(6)(a) The association may bring an action in its name to foreclose a lien for assessments in the manner a mortgage of real property is foreclosed and may also bring an action to recover a money judgment for the unpaid assessments without waiving any claim of lien. The association is entitled to recover its reasonable attorney's fees incurred in either a lien foreclosure action or an action to recover a money judgment for unpaid assessments. [40] The Continental Group Inc. See: http://thecontinentalgroupinc.com/cm/Home.html . This corporation has 25 years of experiencing in condominiums management. Rachelle Alterman interviewed Mr. Tom Roses, at the time the president of the property management division (in 2007 Mr. Roses was promoted to the office of President of the Continental Group Inc.). The interviews were held in March 2006 in the company offices in the Miami-Dade area. [41] The latter did not want their names mentioned.

meetings of the condominium representatives of the building in the Miami area where she resided during 2006.

One of the questions that interested us relates to the reserve fund. We asked our expert informants, what, in their estimate, was the degree to which the statutory instruction to set up a reserve fund was in fact being observed. In other words, to what extent do Florida condominium associations rely on the "escape clause" that in fact leaves the establishment of a reserve fund to their discretion. The picture we obtained was mixed: The president of the maintenance company and his staff (separately) converged in their estimate that approximately 10% of the condominiums entirely forego the establishment of a reserve fund. Our informants conjectured that these are largely condominiums with a majority of elderly households. At the same time, the interviewees estimated that approximately 40% of the condominiums did set aside a reserve fund of adequate size for the full long-range needs of level 3 and 4 maintenance. It is a judgmental decision to say whether 40% constitutes a reasonable degree of fulfillment of the law's objective or a grossly missed one. But there is no doubt that for the tower condominiums included in the other 60%, this finding bodes bad news. Recall that towers cost more to maintain and that the cost rises with the age of the building. The decline of these huge edifices in the future might grow into a big problem. From where will the resources come to maintain them at level 3, not to speak of level 4 (which is rarely fully covered by reserve funds)?

We also learned about the very high degree of professionalization that condominium management has reached in Florida. Whole slates of professionals from a variety of disciplines specialize in providing various services related to longterm maintenance. The requirement in the law that each condominium association prepare a forecast of its longterm maintenance expenditures, even if it decides not to set aside a reserve fund, has created the demand for such professionals. The fact that this task is overseen by government has given this trend a further boost. Some of the professionals who must be consulted are specified in the statute; other specializations have evolved with time as market demand for better maintenance has become more sophisticated.

Even though the Florida statute nowhere requires the engagement of a management corporation (unlike some of the recent surrogate solutions with which various local authorities in Israel have been experimenting), most condominium buildings – certainly the high-rise ones –do engage the services of such corporations. According to our interviewees, the competition in the marketplace among management companies does not revolve around short-range price of services. This difference between Israeli and Floridian condominium law likely reflects the Florida requirement, absent in the Israeli

statute, that each condominium association prepares and approves an annual longterm estimate of prospective maintenance costs. The performance of management corporations can thus be assessed against preset benchmarks that encompass preventive maintenance actions with an eye to the long-range, not only short-range costs. Another factor may be that some of the companies have been on the scene for a long time. By contrast, among the emerging condominium management companions in Israel, the competition is more about price levels in the short- range. None of the Israeli firms has been around for long, whereas in Florida there are several firms with a longstanding reputation. All these factors together contribute to reducing the asymmetric information failure in the market of tower condominiums especially regarding maintenance operations of levels 3 and 4, which are complex and costly.

Finally, the enforcement issue is key to the capacity of any regulation to curtail the free-rider phenomenon. Our interviewees all testified that in Florida the condominium associations not

only have the legal powers to demand that the unit owners pay the debt, but also do in fact exercise their powers routinely. Most strikingly (from the prism of Israeli law and practice), our interviewees reported that after about a month's grace, condominium associations do not hesitate to exercise liens and take possession of apartment units. If necessary, they offer the unit for sale, deduct the amount owed plus the legal and administrative costs and return the balance to the owner.

Now that both types of condominium laws have been analyzed, we come to the concluding section, where we compare the two laws in order to glean out their broader implications for public policy. On its face, Florida is the clear "winner". A closer, multi-faceted look provides a mixed picture and some challenges for urban policymakers worldwide.

9. Comparative analysis: The conflict between sustainable maintenance and affordability

In this concluding section we compare the two types of legislation on two levels – the condominium realm and the public realm: The first level has been the main focus of this paper – the capacity of the two laws to perform as instruments for minimizing free-riding among the co-owners and asymmetric information between buyers and sellers in condominium buildings. The second level has been an undercurrent, but is

now introduced directly: What are the broader public-policy implications entailed by each of the laws in the realm of housing and urban policy? On both these levels, the conclusions are far from simple.

The condominium realm: the capacity to ensure sustainable maintenance

Under normal economic circumstances, there is no doubt that the enhanced type of condominium law, as exemplified by Florida, is immensely more suited to tackling the longterm maintenance problems created by the greater susceptibility of tower condominiums to each of the types of market failure discussed above. It is clear that the Florida legislators (and their counterparts in the "enhanced" group of laws) thought methodically through the various types of market failure and attempted to close the "loopholes" for most of them. Although the Florida legislators did not manage to close all the holes hermetically – for example, they left the creation of a reserve fund to the discretion of the condominium associations and, in any case, it is doubtful that many buildings would cover the long range that level-4 updating requires – it is obvious that Florida scores much higher on this count than the "simple" Israeli law. Hence, an investment in condominium is probably better protected in the long-run in Florida than in Israel.

However, even these unequivocal conclusions apparently hold only under normal economic circumstances, where real estate prices and the general economy are more or less stable in the long-run. The 2008 subprime loans crisis and the ensuing financial "meltdown" provide a rare "laboratory" to test the enhanced type of condominium laws. Since 2008, there have been thousands of defaults in payments to condominium associations in Florida and elsewhere in the USA. These often go hand in hand with defaults in mortgage payments. Both banks and condominium associations now own many apartments in condominium.

A January 2009 survey conducted by the Floridan Community Association shows that an estimated 65% of Florida respondents (70% in Southern Florida) report a significant increases in the number of foreclosures and, as a result, in non-payments of maintenance assessments[42]. More than a third of the respondents (43% in Southeast Florida) said the foreclosure crisis has resulted in postponements of major capital investments in upkeep or repair of buildings and other property. The respondents also report that in order to sustain their finances, condominium associations often find it

necessary to impose higher assessments on the non-delinquent owners. The situation is so grave in some parts of the USA, such as southern Florida, that the Reuters news agency has called it the "condos' death spiral"[43].

A related phenomenon is that thousands of condominium owners now offer their units for rent in order to use the rent to pay the maintenance fees and avoid takeover by the condominium association.

These trends do not bode well to the future capacity of condominiums in crisis to pay for the maintenance costs, short-term and long-term alike. About the price drop that bank foreclosure brings about (and condominium lien takeovers too) one need not say much more here. In terms of maintenance, however, our analysis shows that frequent turnover of buyers increases the prevalence of the "intergenerational" asymmetric information problem. Moreover, a large number of renters further increases the probability of free-riding compared with owner-residence. These trends inevitably imply a further plunge in the market price of the condominium units, and this, in turn, means that the new buyers may be a hitch lower in the income ladder. Since the tendency to free-ride is also related to the capacity to pay, the inching-down of the Florida condominium towers as a result of the economic crisis also accelerates the emergence of the market failure.

On this level of comparison, the Israeli law has little to offer in competition with the Florida law, except one thing: Because the legislation is much leaner in the administrative and financial obligations it places on the co-owners, the monthly maintenance fees may potentially be lower than those in Florida (other things equal). The condominium associations have a full range of discretion to set the fee level, as low as they wish, with no government oversight. In normal situations, this legal fact is a clear disadvantage for ensuring longterm maintenance. But during a severe economic crisis, such as the one that Florida real estate is now experiencing, the enhanced Florida law itself may in fact become an economic burden on condominium co-owners. This is because it inevitably entails a heavy overhead (more on this below). Furthermore, the condominium associations do not have the discretion to lower the fees in the short-run (for a year or two) below what the anticipated maintenance needs show, even if, in their judgment, preventing more defaults and owner turnovers may in the long run be more important for fulfilling the maintenance goal than taking full care of the building at present.

[42] **State of Distress: The Mortgage Foreclosure Crisis within Florida's Condominium and**

Homeowner Association Population Results of the 2009 Florida Community Association Mortgage Foreclosure Survey. *Report of Final Results, Based on 1,589 Responses.* Community Associations Leadership Lobby study, February 24, 2009. Available at:

http://www.callbp.com/pubs_public.php [43] Reuters story, April 2 2009. http://www.reuters.com/article/domesticNews/idUSTRE53200O20090403?sp=true .

One may argue that the economic crisis accelerates the life trajectory of tower condominiums in Florida. We recommend that an ex post evaluation study be taken in a few years' time to look at how well the Florida condominium statute has functioned in regulating against the potential market failures. It is already clear that even the most enhanced condominium law cannot withstand the extraneous social and economic factors that a crisis of the current magnitude brings along. However, policymakers at the local and higher government levels must pay close attention to these developments.

The public realm: Ensuring affordability and preventing social exclusion

Securing good maintenance for the long-term is, undoubtedly, an important goal. Yet, housing and urban policy must balance among many other goals and considerations. Our conclusions are that if tower condominiums are regulated so that the co-owners will in fact cover all current and future maintenance costs, the condominiums will wind up socially exclusive. In other words, the goal of regulating against market failures in tower condominiums might conflict with the goal of social inclusion.

It follows that the Florida-style tower condominiums that obey the Florida statute (and exercise their discretion according to its objectives) might inherently be socially exclusionary to some extent due to the statute. The modes of exclusion are both overt and subtle. There are three overt financial modes: First, the statute in effect entails significant *transaction costs* for the initial purchase, as well as a permanent annual *overhead* to pay a slate of experts who must be engaged in order to fulfill the legal, accounting, and administrative tasks imposed by the legislation. Second, the statute mandates a relatively *high starting level* of maintenance fees because it requires the account for future anticipated expenses and recommends the creation of a reserve fund. Third, the enforcement mechanisms by means of a lien against the apartment units that default in payment of maintenance fees may be effective, but is it also mercilessly.

The covert, more subtle modes of exclusion are also embedded in the legislation. They are the massive and complex paperwork written in heavy legalistic style. It is far from

"friendly" towards many social groups and may serve as a deterrent in its own. Similarly, because the management of the condominium is heavily laden with legal obligations, negotiation with the condominium association fortified by legal advisors may not be an easy task for the less- empowered social groups.

This brings us to the better known aspect of condominium exclusion – one not mentioned in this paper so far. Condominium associations (and other homeowner associations in the USA) are authorized to approve transfer of ownership (or even rental) on the basis of capacity to pay the maintenance fee. Even if all condominium associations were to consider only the economic attributes of the buyer and not any ancillary considerations (such as race, religion, household structure, age, etc.), the selective mechanism is socially exclusive towards the less affluent. Thus, the statute in effect places the objective of ensuring financing for long-term maintenance as paramount, despite its potential conflict with social inclusion.

By contrast, the "simple," – "low tech, – types of condominiums laws, while rather ""old- fashioned" in the manner that they handle the maintenance issue, are inherently much more socially inclusive than the "enhanced" type of laws (although we are not aware that anyone has pointed this out before). This conclusion is based on two sets of reasons.

The first set of reasons is that the Israeli law, unlike its Florida counterpart, places minimal up-front financial deterrents to condominiums living. Apparently, the Israeli law makes life legally administratively simple and inexpensive for the co-owners. The statute itself imposes almost *no overhead* costs and *hardly entails any transaction costs* on the condominium level (of course, all these savings come at a price in terms of the condominium's powers – as discussed above).[44] The condominium law even saves the condominium co-owners the hassle of forming an independent association; the statute itself establishes the legal identity of each condominium and its representative. All that is required is to register the building with the Registrar of Condominiums – a simple action that does not need a lawyer's services.[45] There is no requirement to engage professionals and to receive government clearance for the annual financial account. Nor is there a request to establish a reserve fund under the supervision of a chartered accountant. The Israeli statute does not even require that the condominium owners create their own set of regulations (thus saving on lawyer fees). Instead, the statute includes a default set of regulations that hold for any condominium, unless the owners wish to change it. There is also little latent exclusion such as created by overly legalistic language. The rules of the default regulations are relatively simple, and the broad public

generally knows them so no further paperwork is required.

The second reason why Israeli condominium law is less socially exclusive than Florida's law is that the Israeli condominium law does not grant the condominium entity any powers to interfere with transactions of sale and rental of units. Unlike the interventionist (often notorious) powers of condominium associations in the USA and Canada, under Israeli law and widespread practice, co-owners may advertise their units for sale and rental and close a contract, while the condominium has no direct authority to interfere in the transactions[46] (unless the co-owner set up an additional association not based on condominium law – but that type of practice is extremely rare in urban areas).[47]

10. Conclusions and policy implications

Whether or not to permit, or even encourage, tower condominiums is one of the most important urban planning policy questions that decision-makers in cities and national governments around the world should be facing today. Not enough policymakers are as yet aware of this question's importance, and it has been the purpose of this paper to raise its profile.

Tower condominiums are financially unsustainable and socially exclusionary

Our analysis has shown that the answer to the question of whether to encourage tower condominiums does not lie in simply seeking out the best legal mechanism to regulate

[44] Of course, each individual transaction is different – for example, a unit with several inheritors may be legally much more complex than a unit own by one person only. [45] However, recall, once again, that the savings in administrative and legal hassle come at the expense of legal and economic powers. [46] The condominium may of course warn the prospective buyer that there is a standing debt for maintenance fees or it may take enforcement action, but cannot stop the transfer on its own authority [47] That is not to say that there is no social exclusion in Israel. Indeed, this is also a polemic issue on the Jewish- Arab front vis a vis Israeli-Arab citizens, but for the most part the issue revolves around access to rural cooperative, communal villages, and exurban neighborhood associations. None of the modes of exclusion practiced in

these areas is related to condominium law. See also Lehavi and Mauntner (Eds, 2009).

condominium management. Instead, the answer lies deep among the inescapable dilemmas concerning urban living. There are competing goals with tradeoffs, and decision-makers must carefully balance among them. Ensuring longterm maintenances and prevention of deterioration is but one among these goals. It conflicts, to a significant degree, with the goal of enabling social inclusion.

In comparing the "enhanced" Florida law and the "simple" Israeli law, we show that each is better at fulfilling one set of public-policy goals, but this comes at the expense of the other goals. Furthermore, we show that when it comes to condominium towers, rather than "regular" condominium buildings, neither of the two laws provides an adequate answer that ensures financing of long-term maintenance. Each law falls short even in terms of the public policy goal in which it otherwise exhibits a marked advantage.

Even before the economic crisis that began in 2008, our field research (of modest scale) has shown that in practice, even the enhanced type of condominium law as in Florida did not ensure that most condominium associations would set aside an adequate reserve fund. One may conjecture that many towers are among those who fell short. Given the higher maintenance cost in tall buildings, the higher probabilities for free-riding and the fact that the necessary investments increase with time, one can anticipate that many tower condominiums will not persevere in excellent maintenance consistently over time. This inevitably means gradual deterioration, and harmful neighborhood externalities. Unfortunately, all these impacts are much amplified compared with mid-rise condominiums. The economic crisis unveils the weaknesses of the Florida law even more. The projections of gradual decline in the housing ladder of Florida towers is, however, tempered by the fact that in Florida (and the US as a whole) condominium living, and especially tower living, is usually targeted for upper-middle and high-income households.

Planners and policymakers should therefore take into consideration that tower condominiums are not fully sustainable in physical terms that require long-term maintenance. This holds even where the law provides a reasonable set of regulations against both free-riding among co-owners and asymmetric information between buyers and sellers and where only upper- income social groups usually occupy condominium towers. Once tall buildings deteriorate, they are difficult to rehabilitate and wasteful to replace.

Due to the combination of the attributes of the Florida law and the costs and dynamics of living in tall buildings, tower condominiums in Florida are also likely to be more

exclusionary than lower condominium buildings. For Florida policymakers, sustainable maintenance was the overriding goal, at the expense of social integration. In Israel the picture is reversed: In refraining from burdening condominium towers with extra costs and seeking to streamline regulations, the legislators did achieve integration (all parts of Israeli society reside in condominiums). At the same time, however, they exposed the new towers – located in cities all over the country, not only in prime locations – to accelerated trends of decline and subsequent negative neighborhood-level externalities. Thus, social inclusion and sustainable maintenance are two goals pitted against each other.

Policy recommendations

Is there no solution? We offer several policy alternatives and have ranked them in declining order of priority.

If possible, prefer other height or density alternatives: Our first recommendation is that policymakers should regard proposals for tower condominiums with suspicion. Since they are either unsustainable or socially exclusionary, and likely both, there should be extremely weighty goals to justify their approval. For example, if the overriding urban goal is greater density, consider alternative urban design formats to achieve similar densities and avoid residential tower

Permit condominium towers only in selective real estate locations: Since sustainable maintenance and social inclusion compete, so long as there is no public subsidy to finance maintenance for the long range, policymakers should reserve condominium towers for prime locations where real estate values are initially high and populate upper-income households. Thus the probabilities of free-riding and foreclosures will be somewhat reduced (though not entirely avoided).

Create a publicly controlled reserve fund for long-term maintenance costs: If policymakers feel that condominium towers are desirable because their shortcomings are outweighed by other urban policy goals, then there is no escape from further enhancement of the legal and financial mechanism that currently regulates their maintenance. In other words, the seemingly "enhanced" type of legislation is not enough because the reserve fund is discretionary, its range and purpose are not defined, and it is not directly monitored by a public body. Policymakers should consider enactment of legislation that requires either the developer or the initial owners to set up a publicly-monitored reserve fund together with the initial purchase of the unit. The size

of the fund must be calculated to include funding not only to maintain the building in its current form (up to level 3), but also to update it within 20-30 years according to the housing standards that will prevail at that time. If the owners are able to take care of ongoing maintenance costs of levels 1 and 2 (because they are affluent), then some simulated calculations that we conducted show that the fund need not be a major financial burden so long as it is created early on, and there is a reasonably secure investment with a reasonable interest rate (which has shown to be doubtful in the present economic crisis).

Create a publicly subsidized fund to supplement both ongoing and long-term maintenance costs: Finally, if policymakers prefer social inclusion and affordability over self-financed maintenance, they must contend with the issue of longterm maintenance in other ways. Other urban policy goals may also prevail over self-financed maintenance, such as intensive use of land resources and creating an intensive market and employment base. In that case, it is imperative that the co-owners of tower units not be left on their own to struggle with the financial challenge, the free-riding syndrome, and the information asymmetry phenomenon. Moreover, because the negative outcomes to the individual households and the urban area are severe, a public subsidy should be considered to cover the difference in the maintenance cost of tower condominiums and alternative housing.

This final policy alternative – and the one of lowest priority for many obvious reasons – is to establish a subsidized public or quasi-public fund. National government, municipal governments, or possibly a public-private body conjoint with the developers or with housing NGOs' should create a large fund from which individual condominiums could derive some measure of subsidy. This could be in the form of subsidized loans or formula-based matching to incentivize good maintenance programs. The specifics of this fund is beyond the framework of our analysis, but eligibility of the condominium building for funding should certainly be tied to its placement on the socio-economic "ladder". This policy should be part of a broader policy about affordable housing and social inclusion.

Reference

Alonso, W., 1964. *Location and Land Use*. Cambridge University Press, Cambridge.

Alterman, Rachelle (Ed. 1988). Private supply of public services: evaluation of real estate exactions, linkage and alternative land policies. New York University Press.

Alterman, Rachelle, "From expropriations to agreements: Developer obligations for public services in Israel," Israel Law Review, Vol. 24 (1) autumn 1990: 28-81.

Alterman, Rachelle, 2009. Failed Towers: The Problem of Long-term Maintenance in Highrise Condominiums in Israel. Center for Urban and Regional Studies, Technion – Israel Institute of Technology [Hebrew].

Alterman, Rachelle and Goran Cars (Eds.). 1991. Neighborhood Regeneration: An international evaluation. London: Mansell Pubs. Alterman, Rachelle and Arza Churchman. Density of Housing Areas: A Guidebook for Increasing the Efficiency in Utilizing Urban Land. Research report submitted to the Ministry of the Interior, Center for Urban and Regional Studies, 1998 (Hebrew).

Alterman, Rachelle and Tal Zafrir, 2003. Legal-Administrative Considerations in Planning High-Rise Buildings. Center for Urban and Regional Studies, Technion – Israel Institute of Technology [Hebrew].

Beito, David T., Peter Gordon and Alexander Tabarrok (Eds., 2002) The Voluntary City: Choice, Community, and Civil Society. The Independent Institute. Michigan University Press.

Ben-Shahar, D. 2004. Productive signaling equilibria and over-maintenance: An application to real estate markets. Journal of Real Estate Finance and Economics, 28(2/3):255-271.

Boncich, P., G. H. Shure, and J. P. Kahn, 1976. Cooperation and group size in N-person prisoners' dilemma. *Journal of Conflict Resolution*, 20:685-702.

Churchman, A. & Ginsberg, Y. (1984). The image and experience of high rise housing in Israel. Journal of Environmental Psychology, 4(1),27-41.

Churchman, Arza 1999. Disentangling the Concept of Density. J*ournal of Planning Literature* 1999; 13; 389.

Churchman et al. (2003). Guidebook to Assessing Plans for High Rise

Development. [English Summary] Center for Urban and Regional Studies, Technion, and the Ministry of the Interior. Financed by the Ministry of the Interior.

Community Associations Leadership Lobby (2009). **State of Distress: The Mortgage Foreclosure Crisis within Florida.s Condominium and Homeowner Association Population Results of the 2009 Florida Community Association Mortgage Foreclosure Survey.** Cornes, Richard and Todd Sandler, 1986. *The Theory of Externalities, Public Goods and Club Goods*. New York: Cambridge University Press.

Council for Tall Building. Website: http://www.ctbuh.org/Portals/0/Tallest/InNumbers/InNumbers_Issue2_2008.pdf

Council on Tall Buildings and Urban Habitat (1996), "Tall buildings: 2000 and Beyond", Fourth World Congress on Tall Buildings, Hong Kong.

De Soto, Hermando (2000). The Mystery Of Capital: Why Capitalism Triumphs In The West And Fails Everywhere Else. New York: Basic Books.

DiPasqaule, D., and E. L. Glaeser, 1999. Incentives and social capital: Are homeowners better citizens? *Journal of Urban Economics*, 45:354-384.

Glendon, Mary Ann, Paolo G. Carozza and Colin B. Picker (2007). *Comparative Legal Traditions: text, materials and cases of Western law* .St. Paul, MN: Thomson-West – American Casebook Series.

Hardin, G., 1968. Tragedy of the commons. *Science*, 162:1243-48.

Helsley, R. W., and W. C. Strange, 2007. A game-theoretic analysis of skyscrapers. Souder School of Business Working Paper Series.

Hoffman, Alexander von (1996). High ambitions: the past and future of America's low income housing policy". Housing Policy Debate Vol 7 (3).

Israel Ministry of the Interior – Planning Administration. 2003. A Guide for Evaluating Plans for High Rise Buildings. Technion: Israel Institute of Technology, Center for Urban and Regional Studies.

Lehavi, Amnon and Meni Mauntner (Eds), "Spatial Exclusion in Israel". Tel Aviv University Law School. Hebrew.

McKenzie, Evan (1996). *Privatopia: Homeowner Associations and the Rise of Residential Private Governments*. Yale University Press.

Mills, E., 1967. An aggregative model of resource allocation in a metropolitan area. *American Economic Review*, 57:197-210.

Morgan, Jill, 2009 (*forthcoming)*. Housing and Security in England and Wales: Casualisation Revisited. *International Journal of Law in the Built Environment* Vol. 1 No. 1.

Muth, R., 1969. *Cities and Housing: The Spatial Pattern of Urban Residential Land Use, University of Chicago Press*, Chicago.

Nelson, Robert T. 2002. The Rise of Private Neighborhood Associations: A Constitutional Revolution in Local Government. Paper prepared for a conference on "The Property Tax, Land Use and Land-Use Regulation," sponsored by the Lincoln Institute of Land Policy, January 13-15, 2002, Scottsdale, Arizona. Available on the internet at: http://www.publicpolicy.umd.edu/faculty/nelson/Lincoln%20--%20The%20Rise%20of%20Private%20Neighborhood%20Associations3.pdf

Nelson, Robert H. 2005. Private Neighborhoods and the Transformation of Local Government. Washington: Urban Institute Press.

Newman, Oscar (1972). **Defensible space**. New York: Macmillan.

Newman, Oscar & Franck, K. (1982). The effects of building size on personal crime and fear of crime. **Population and Environment, 5**, 203-220.

Olson, Mancur, 1965. *The logic of collective action*. Cambridge, MA: Harvard University Press.

Rodrik, Dani, 1986. Tariffs, subsidies, and welfare with endogenous policy. *Journal of International Economics*, 21(3/4):285-289.

Sandler, Todd, 1992. *Collective action*. Ann Arbor, MI: University of Michigan Press.

Siebrits, J. (2005) "An overview of the national housing and mortgage markets in the UK", *CML* Housing Finance, pp. 1-17. Available at www.cml.org.uk/cml/filegrab/pdf_pub_hf_01- 2005.pdf.pdf?ref=3261> 3.

Warszawski, Avraham (2001) Economic Aspects of Tall Buildings. Research report. Center for Urban and Regional Studies, Technion – Israel Institute of Technology, Haifa Israel [Hebrew].

Warsawski, Avraham (2003). "Engineering and economic aspects of high-rise maintenance". Center for Urban and Regional Studies, Technion, Israel [Hebrew}.