How do the perceptions of informal settlement dwellers on tenure security translate into investment in housing improvement? Is a property title necessary to establish security or increase investment? And how are income and credit related to investment? Does the average dweller actually aspire to legalization of tenure, and if so, what is expected? Based on research conducted in two land invasions in Buenos Aires, Argentina, this article addresses these questions, focusing on two issues in particular: the concept of tenure security and the empirical measurement of perceptions of security related to investment in housing improvement (Van Gelder 2009b).

**Tenure Security as a Tripartite Concept**

In the face of rapidly increasing urban informality in the 1970s, organizations such as the World Bank started experimenting with programs that provided basic services to settlements and granted property titles to dwellers. The assumption was that with secure tenure dwellers would mobilize resources for housing construction more efficiently than they would under public housing programs. Self-help housing, thus, was viewed as a source of economic security and upward social mobility.

In the early 1990s, the economic dimensions of tenure legalization took on new importance in some policy circles (Bromley 1990; World Bank 1993). The mere provision of private property rights was believed to be both a sufficient and necessary condition for settlement development. It was assumed that by providing both the incentive to invest and the possibility to do so by making formal credit accessible, property rights would function as leverage for development.

Critics of this idea argued that, with respect to establishing tenure security and investment, one could better focus on the actual situation on the
Factors such as the official recognition of a settlement, introduction of infrastructure and services, and other factors that could strengthen de facto security of tenure were considered more fundamental than holding a legal document for a plot (e.g., Gilbert 2002).

A third point of view on investment in housing claims that security as perceived by the dwellers is the most important factor. Rather than legal security, as embodied by titling, perception is the actual driving mechanism behind investment. It is argued that residents invest in their dwellings regardless of legal status, as long as they think they will not be evicted and will be allowed by the authorities to remain in their homes (Broegaard 2005; Varley 1987).

The concept of tenure security thus can be viewed in three different ways: as a legal construct that often takes the form of title to property; as de facto security based on the actual situation; and as it is perceived by dwellers. However, these views are often confused or simply equated in the research literature and by policy makers, so it is important to distinguish among them in order to answer the questions posed earlier.

Legal tenure security is a formal concept that refers to authoritative documents that identify the owner of an asset recognized by state power, but de facto and perceived tenure security are empirical concepts. To understand the de facto situation, we need to study the facts on the ground and answer such questions as: Have forced evictions been rare or frequent occurrences in a certain city or area? Has the general attitude towards illegal occupation by authorities been lenient or strict? Perceived tenure security, on the other hand, resides in the mind of the dweller, and its measurement requires fine-tuned methods.

The different types of tenure security may overlap. For example, having a title may imply that a dweller also has de facto security and he may perceive his situation to be secure, but there is no necessary connection among these types. Property rights do not always have a bearing on any kind of empirical fact, nor do they have to be recognized as something meaningful in the eyes of dwellers (Van Gelder 2010). Rather, cities with extensive informality are characterized precisely by an absence of such correlations.

One problem with the titling approach is that it equates property rights with tenure security. This makes sense in situations where the facts on the ground reflect the norms of the legal system, but not necessarily when this is not the case. Furthermore, it is important to remember that if tenure security, whether legal or de facto in nature, influences investment, it must operate through psychological pathways.

**The Psychological Side of Tenure Security**

The literature reveals three critical issues with respect to measuring tenure security. First, whether...
it is considered legal, de facto, or perceived, tenure security is often seen as a yes–no issue; either you have it or you do not. Second, and related to the first issue, studies only rarely provide an indication of the degree to which tenure security contributes to (more) investment in housing, compared to other factors likely to influence investment, such as income level or the availability of credit. Third, perceived tenure security is nearly always operationalized as a dweller’s perceived probability of eviction.

These three issues expose a number of important limitations related to each point. First, the idea of viewing tenure security as a dichotomy does not fit the reality of developing countries, where tenure security is better conceived as a matter of degree. Most low-income settlements fall somewhere between being completely insecure and entirely secure. Second, to understand the strength of tenure security as a factor influencing investment, this relationship needs to be quantified and examined along with other factors likely to influence investment, such as household income.

With regard to the third point, social psychological research increasingly shows that people’s decisions are often influenced by what they feel about a situation, instead of or in addition to how they think about it (Hsee and Rottenstreich 2004; Kahneman 2003; Van Gelder, De Vries, and Van der Pligt 2009). These insights can be applied to the study of informal housing if we consider a dweller’s investment as a form of decision making under uncertainty. That is, besides operationalizing perceived security only as the perceived probability of eviction, which refers to a cognitive or thinking state, we can also examine the feelings or worry, insecurity, and fear that dwellers experience. We term this component of tenure security fear of eviction.

Does examining feelings add to understanding estimates of the probability of eviction? In the context of informal tenure, it is often suggested that dwellers think that the probability of a forced eviction is very low, in particular when a settlement is relatively consolidated. In these cases, using only perceived probability of eviction as an indicator of tenure security limits its predictive value because it is invariably low. Yet, the possibility of eviction, however small, may still generate intense feelings of worry and stress in dwellers whose decisions are influenced regardless of whether this probability is perceived as likely or not (Van Gelder 2007; 2009a).

To avoid considering (perceptions of) tenure security as a dichotomy, we can operationalize probability and fear of eviction using psychometric scaling techniques. In my research, dwellers were presented various statements about their tenure situation and asked to indicate to what extent they agreed with each statement using five-point scales that ranged from completely disagree to completely agree. For example: “The possibility of an eviction
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worries me sometimes,” or “The possibility that we could be evicted from this neighborhood is always present.” Both items refer to the possibility of eviction, but the second item, which measures perceived probability of eviction, refers to a chance estimate—a thinking state—whereas the first item inquires about feelings.

Separate composite scales consisting of multiple items measured the perceived probability of eviction and fear of eviction. Respondents, all of whom were heads of household, were also asked about their household income and whether they had taken out a loan in the previous years. To measure investment in housing improvement, surveyors scored participants’ dwellings on three defining elements: the floor, the walls, and the roof. The scores were subsequently combined into a housing improvement consolidation index, the dependent variable. To isolate the effects of perceived tenure security on investment, the survey included only those heads of household who had lived in the settlement since its origin and were responsible for their home construction.

Case Study Settlements

A land invasion typically involves a few hundred people who gain access to land by collectively invading and immediately building on the site. Residents attempt to comply with land use legislation and other requirements that render the legal and technical subdivision of the land possible at a later stage. This active resident participation makes these settlements different from more irregular slums (e.g., villas miseria).

The study consisted of a structured survey as well as semi-structured interviews and focus groups with dwellers in two different land invasions in the southern cone of Greater Buenos Aires, which is known for its large-scale popular urbanization and high concentrations of poverty (table 1).

### Table 1

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Municipality</th>
<th>Year of Formation</th>
<th># Lots</th>
<th># Respondents</th>
<th>Average Age</th>
<th>Income(^*(\text{ARS}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Cayetano</td>
<td>Florencio Varela</td>
<td>2006</td>
<td>350</td>
<td>124</td>
<td>29</td>
<td>949</td>
</tr>
<tr>
<td>El Tala</td>
<td>Quilmes</td>
<td>1981</td>
<td>516</td>
<td>118</td>
<td>52</td>
<td>1,111</td>
</tr>
</tbody>
</table>

Note: \(\text{a: Average monthly income in Argentine pesos (3AR$ = 1US$)}\).
The settlements were similar in size, but differed in age and hence degree of consolidation. El Tala was one of the first invasions in the city, while San Cayetano had existed for only two years prior to the survey in 2008. Only half of the dwellers in El Tala had received legal title, creating the conditions for a valid comparison of titled and nontitled households in this settlement.

Results of Analysis
Regression and correlational analysis were employed to examine the strength of both perceived probability of eviction and fear of eviction as predictors of housing improvement. To obtain a better idea of their comparative strength, we also looked at household income. Table 2 shows that both probability and fear were significantly correlated with improvement in both settlements. In other words, both thinking about the probability of an eviction and the feelings evoked by it influence the extent to which people are willing to invest in their dwelling. The higher the perceived probability and fear of an eviction, the less improved their dwelling.

Household income was quite strongly correlated with housing improvement in San Cayetano, but not in El Tala. One likely explanation for these findings is that the most visible investment in housing occurs in the early years of settlement development. Recall that San Cayetano was only two years old at the time of the survey, while El Tala dates to the early 1980s. Another related explanation is that the current income of households, as measured in the survey, does not necessarily reflect income in preceding decades. That income fluctuation makes it more difficult to assess the valid relationship between income and investment for older settlements like El Tala.

The regression analysis in table 3 simultaneously tests probability, fear, and income as predictors of investment by looking at their unique contribution. The strength of the relationship for each separate variable is indicated by the β symbol, which can range from -1 to +1 (indicating a perfect linear negative and positive relationship respectively).

In El Tala the effect of probability of eviction is largely explained by fear of eviction. This appears to confirm the assumption discussed earlier that in cases where eviction is very unlikely, such as in consolidated settlements, fear of eviction is the better predictor of housing improvement. Stated differently, when deciding on whether and how much to invest in their dwellings, individuals are actually more influenced by how they feel about...
their situation and the risks involved than how they think about it. These results make a strong case for altering our view on perceived tenure security as merely consisting of perceptions of the probability of eviction. If we want to be able to predict behavior, we also need to understand how people feel.

In San Cayetano, however, a different picture emerges. Even though both perceived probability and fear of eviction are negatively correlated with investment in housing improvement, the results of the regression analysis show that household income explains most of the variance. In other words, household income dictated the investment more than perceptions of security, whether perceived probability of eviction or fear of eviction. My assumption is that again these results can be attributed to the young age of the settlement, because financial abilities more than anything else dictate to what extent people can invest in their housing in the earliest phase of settlement consolidation.

Virtually all residents surveyed and interviewed in both settlements indicated that having a property title was important to them, and they expressed a strong desire to be legalized. This result presents an intriguing paradox: Even though forced eviction is rarely regarded as likely or even possible by residents, about half of them still gave security of tenure as the most important reason for wanting to have a title to their property. One resident of El Tala commented on different motivations for investment: “I think that there are two moments. One is in the beginning when constructing is a way of ensuring yourself that no one will kick you out. Nowadays, I think the situation is rather reversed. I don’t believe that it is worth putting money in your house if you do not have a title.”

This means that even in situations with very high de facto security of tenure, such as El Tala, property titles are still desired by residents, principally for additional security. This finding corresponds with the point made earlier about the importance of including fear of eviction alongside probability estimates as an indicator of perceived tenure security. The possibility of an eviction, however small, may still elicit strong feelings of worry and fear that can influence residents’ decisions, almost regardless of perceived probability (Van Gelder 2007).

Other frequently mentioned motivations for wanting a property title were expressed as “leaving something to my children” and ”being or feeling that I am the owner of my house.” Surprisingly few dwellers in either settlement mentioned commercial reasons (e.g., increased value of their dwelling or access to credit) for their desire to be an owner. In both settlements, more than 80 percent of the respondents thought that having title would further increase security. More than half
of the residents thought they would invest more after having title, and more than half of the residents that had title indicated that they had in fact invested more after their tenure was legalized.

With respect to accessing credit, titled owners did not take out a bank loan more frequently than residents who lacked title. In El Tala only three people with a property title had taken out a mortgage loan in the previous five years versus two people in the untitled part of that settlement. More people—eight in the titled and five in the untitled areas—had taken out loans at lending institutions that charge high interest rates but do not require property as collateral. In other words, the owners did not pledge their dwellings as collateral to obtain the loans.

The majority of the respondents who had taken a loan had done so to improve or repair their dwellings. The small amounts of money borrowed and the very few loans intended for business investments raise doubts about the extent to which increasing access to credit will function as an engine for economic growth, as is sometimes suggested as a rationale for land titling programs.

**Conclusions**

These results shed some new light on the debate over tenure security and the discussion between advocates and critics of legalization. For example, even though legal title is not a necessary condition for investment in housing improvement, it is likely to be a contributing factor in some situations. Furthermore, nearly without exception, all dwellers aspire to be the legal owner of their home. However, the social and psychological effects seem to be much greater than economic factors in valuing legal tenure.

While policy increasingly has stressed mercantilist arguments in support of titling (e.g., credit and land markets), respondents tend to stress social reasons. Besides tenure security, the ability to leave something “safe” for offspring and the simple feeling that one is the (legal) owner of one’s dwelling were cited as more fundamental motivations for the desire to be a homeowner. Formal ownership is seen by many, realistically or not, as a way of escaping marginality and as a substitute for a largely deficient social security system.

One way to improve policy and more accurately anticipate the consequences of specific interven-

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**ABOUT THE AUTHOR**

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