

# Gentrification by Ground Rent Dispossession: The Shadows Cast by Large-Scale Urban Renewal in Santiago de Chile

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## Abstract

*The rent gap theory, a consistent explanation of gentrification in inner-city spaces, sees a growing disparity between capitalized ground rent (CGR) and potential ground rent (PGR) as a catalyst for large-scale property reinvestment and thence gentrification. In historical working-class Santiago's peri-centre (inner city), not only is there a measurable rent gap, but a state-subsidized market in high-density urban renewal based on the accumulation of increased CGR by a few large-scale developers. This article focuses on a low-income municipality of Santiago, which has a local government that aims to attract this market via the liberalization of its local building regulations (seeking to increase the PGR), and deliberate underperformance in a national programme for housing upgrading (seeking to devalue the CGR in spaces previously targeted for renewal). It is observed how, in this city, two forms of ground rent exist, a lower one capitalized by current owner-occupiers (CGR-1) and a higher one capitalized by the market agents of renewal (CGR-2). This is seen as a form of social dispossession of the ground rent and a necessary condition for gentrification. It is concluded that the state-led strategy of urban renewal in Santiago needs to be refocused on more participative forms of distribution of the rent gap.*

## Introduction

A relatively recent definition of gentrification claims that it is 'a change in the population of land-users such that the new users are of a higher socio-economic status than the previous users, together with an associated change in the built environment through a reinvestment in fixed capital' in a context of urban land commodification and polarized power relations (Clark, 2005: 258), while the role of the urban policy in the channelling of the process is also a key factor (Shaw, 2005). However, although the questions of when and how gentrification takes place are still matters of debate, some authors convincingly claim that social displacement and forms of social-spatial exclusion in changing territories suffice for gentrification to exist (Atkinson, 2000; Lees, 2008).

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Given that in Santiago de Chile there is still little evidence for social displacement associated with the ongoing market in urban renewal, the national government has recently emphasized that 'the observed process [of urban renewal] cannot yet suggest there is a cycle of gentrification' in this city (Arriagada *et al.*, 2007: 101). However, the present article brings a new approach and evidence to this debate. Its main assumption is that gentrification in Santiago should not be related exclusively to social-spatial displacement, but to a form of social dispossession of the ground rent. This aspect seems extremely sensitive in the low-income, peri-central (inner-city) *poblaciones*<sup>1</sup> of Santiago, where increased land values represent opportunities for inhabitants to capitalize higher ground rents due to the historical and current (around 76%) high rates of owner-occupancy there (MINVU, 2008a).

In Santiago, national and local building regulations applied to small-scale, mid-density construction are strict. This can lead to several difficulties for owner-residents hoping to improve their dwellings legally, add value to their properties and thus capitalize increased ground rents. In contrast, regulations applied to large-scale renewal in the peri-centre are considerably laxer. Thus, in areas that are experiencing renewal, traditional residents have few other alternatives than to sell their properties to developers at their current low prices and move out to different, generally less advantageous areas of the expanding metropolis.<sup>2</sup> The analysis here observes how this model of urban renewal in Santiago's peri-centre in fact reduces the ground rent capitalized by low-income owner-occupiers whilst it promotes the accumulation of an increased CGR by large scale developers. These differential levels of capitalized ground rent are called here CGR-1 and CGR-2 respectively.

This article focuses on the case of Pedro Aguirre Cerda municipality (PAC hereafter). Although PAC has been hitherto among the least renewed peri-central territories of Santiago, its surrounding context is changing considerably: newly built metropolitan road infrastructure is contributing to appreciating land values; *Ciudad-Parque Bicentenario*,<sup>3</sup> a 250-hectare, state-promoted, large urban project to the west of PAC seeks to bring 75,000 new residents to the area during the next decade; and an active urban renewal market is operating in neighbouring Santiago-Centre and San Miguel municipalities to the north and east of PAC respectively. All these factors seem decisive for a potential increase in ground rent in PAC. Moreover, between 2003 and 2005, the PAC local government attempted to redraft its local master plan, seeking to liberalize its building regulations oriented to large-scale construction and hence increase its local potential ground rent. Also, it may have had some responsibility for the underperformance, since 2001, of a state-subsidized programme aimed at mid-density social housing densification in its territory.

The PAC government's attempt to radically reconfigure the potential ground rent in its territory was highly contested by most local neighbourhood organizations. Although the political aspects of this conflict are beyond the scope of this article, it is relevant to note that the national government recognizes that there have recently been ten other similar cases in Santiago alone, where redrafting of master plans has been contested by local people (MINVU, 2008a). Thus, the case of PAC might be not only an example of what has happened since the 1990s in most of the peri-central municipalities already undergoing renewal — in terms of institutional valuation and devaluation of the potential ground rent and building value respectively — but also an example of what may happen to the other peri-central municipalities on the verge of renewal in the coming decade.

- 1 Historical self-constructed working-class neighbourhoods. The term also refers to more recent state-built social housing estates.
- 2 The urban area of Santiago was 49,270 hectares in 1992, and 64,140 hectares in 2002, an expansion of 30% in 10 years (Poduje, 2006).
- 3 See the development's official website at [www.ciudadparquebicentenario.cl](http://www.ciudadparquebicentenario.cl) (accessed 30 April 2010).

The article is structured as follows. First, the historical context of the peri-central territory and the current state-subsidized model of market-led urban renewal are addressed. Second, an explanation of the rent gap theory is offered and a method of analysis is proposed. The third section describes the effects of the market in urban renewal on the uneven valuation of the capitalized ground rent (CGR) from 1990 to 2005, in both Pedro Aguirre Cerda municipality (PAC) and in San Miguel, a municipality undergoing renewal (and thus an example of what PAC may be in the near future). Fourth, an analysis of the guidelines contained in the new local master plan attempted by PAC municipal administration between 2003 and 2005 is set out. In the final section, the focus is on existing policies and regulations applied in PAC that limit social housing densification and reduce the building value. Interviews with key actors, conducted in 2007, are used as evidence for this analysis, though are not quoted here for space reasons.

### Santiago's peri-centre and its urban renewal

Latin American inner cities differ considerably from those in the North Atlantic region. The bulk of the peri-centre of Santiago was produced under a Keynesian-populist mode of regulation from the 1930s to 1973 (Salazar and Pinto, 1999) that comprised three interwoven processes of development, namely: (1) import-substitution industrialization (Muñoz Goma, 1989); (2) highly mobilized urban social movements that produced a myriad of identifiable *poblaciones*, near the core (Castells, 1974; 1985; 1997); and (3) gradually more sophisticated state apparatuses that produced affordable — yet quantitatively insufficient — new dwellings through policies of regularization, land entitlement and housing upgrading (Kusnetzoff, 1975; Hidalgo, 2005). During the neoliberalization of the country in the 1970s and 1980s, many peri-central enclaves were radically deindustrialized (Gatica, 1989), whilst the military dictatorship (1973–90) tried to dissolve the highly politicized life of many of these *poblaciones* (Schild, 2000; Finn, 2006a). These factors, among others, contributed to a mismatch between residential and industrial functions, declining populations, social deprivation, and several decades of further peri-central decline (Chateau and Pozo, 1987). However, from then on, most of this space survived and crystallized into a very dense structure composed of small residential plots (usually fragmented in lots of 160 m<sup>2</sup> or so), narrow streets, few green areas and insufficient amenities (SGA-IBERSIS, 2000).

The working-class origins of Santiago's peri-centre explain why there have not been important processes of filtering moving down the social scale, and/or dilapidation of residential space there. Although peri-central *poblaciones* have few amenities and minimal infrastructure, they are relatively consolidated and multifunctional spaces for low-income housing and informal and formal micro enterprises. Pedro Aguirre Cerda municipality (PAC) is an example of this, being one of the four densest residential agglomerations in Greater Santiago, hosting 115,000 people in less than 870 hectares. Although its territory is surrounded by motorways that increase its spatial isolation and its current indices of social development are relatively low,<sup>4</sup> PAC is not among the most deprived municipalities of Santiago given its central location and the use value of its built environment. Figure 1 shows views of some of PAC neighbourhoods.

4 PAC is the fifth of 34 municipalities making up Santiago that saw the greatest decline in population (–12.17%) between 1992 and 2002. The economically active population in PAC is also lower than average with people aged between 20 and 49 making up less than 15% of the total, compared to 47% in Santiago as a whole. Residential overcrowding is slightly higher in PAC (4.2 people/dwelling) whereas the average in Santiago is 3.9 (López, 2005). Severe multi-occupation of dwellings is concentrated in 20% of PAC territory, in its most deprived *poblaciones* (SGA-IBERSIS, 2000). Crime and drug-dealing are also problematic, though this also tends to happen in the more recently built peripheral *poblaciones*.



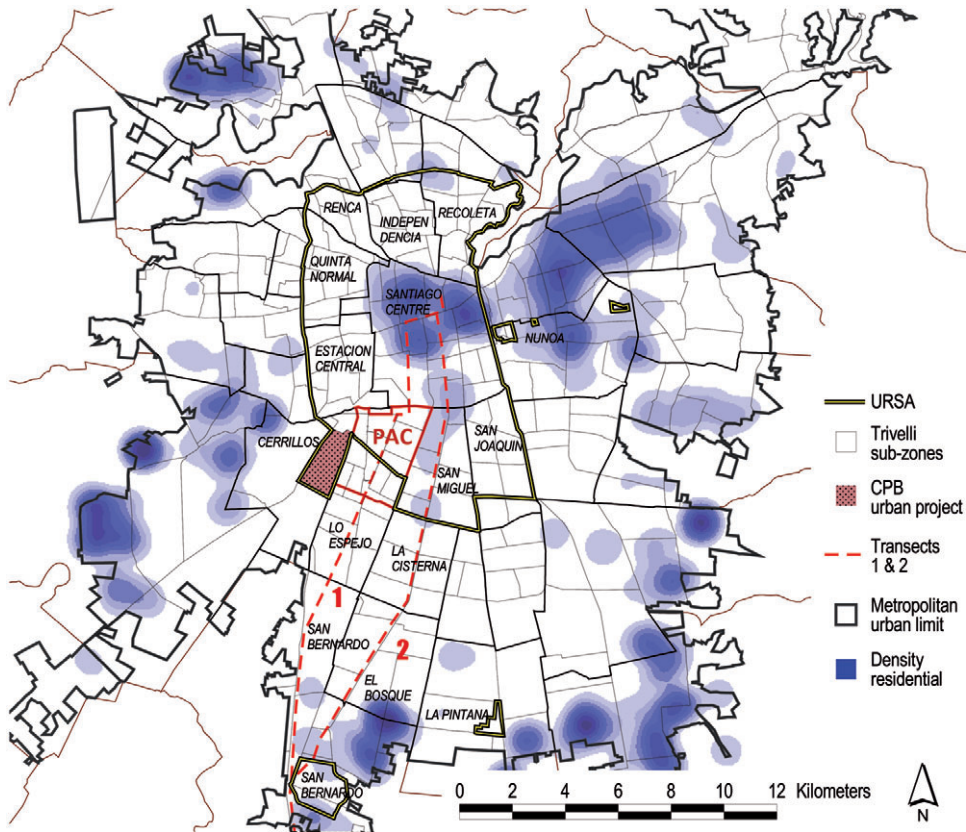
**Figure 1** Views of three *poblaciones* in PAC (source: photos taken by the author)

Precisely because of its superior accessibility and proximity to the metropolitan CBD, in the early 1990s the peri-centre of Santiago started to attract urban renewal developers. At that time, the country was experiencing its largest annual GDP growth rate in more than 30 years, peaking at an average above 8% between 1989 and 1996 (IMF, 2008). The urban renewal property market started only in Santiago-Centre (core) in 1990, and was underpinned by a municipal-private corporation, CORDESAN, that successfully brought developers back to some neighbourhoods, creating new and sanitized residential environments.

Meanwhile, Santiago-Centre CBD was being reshaped as a service-based centre of command for a new export-oriented economy (De Mattos, 2000). Shortly afterwards, the Ministry of Housing and Urbanism (MINVU) came to expand the area targeted for redevelopment, using its newly created Urban Renewal Subsidy (URS) to repopulate the whole inner-city area in Santiago.

Since then, a fixed bonus of 200 UF<sup>5</sup> (US \$7,500; i.e. around 10% of the maximum value of the units) has been paid by the state to buyers of new residential apartments built inside the Urban Renewal Subsidy Area (URSA). The URSA comprises 10 municipalities in a total of 8,500 hectares. Within a few years, the URS has successfully triggered property market activity in several of these neighbourhoods. In total, almost 20,000 individual housing subsidies had been allocated by 2005 (though this is only 5.3% of the total subsidies allocated in the metropolis), but this created a market synergy that produced 23,000 additional non-subsidized units over the same period. Figure 2 shows the spatial concentration of new units between 1995 and 2005 within the URSA,

5 The Unidad de Fomento (UF) is a unit of account used in Chile which is continually adjusted to inflation so that the value of the UF remains constant. In May 2009 it was approximately equivalent to US \$37.5. Prices of land, houses and real estate financing instruments are defined in UF in Chile.



**Figure 2** Density analysis of new residential units built in Santiago, 1990–2001 (Type: Kernel, Search Radius: 2 km). Transects 1 and 2 for CGR analysis are traced on the map (source: Author's elaboration, based on SEREX, 2006)

between 1990 and 2001. Table 1 illustrates the leading position of Santiago-Centre within the URSA, with San Miguel in second place and Pedro Aguirre Cerda coming last (among eight municipalities only).

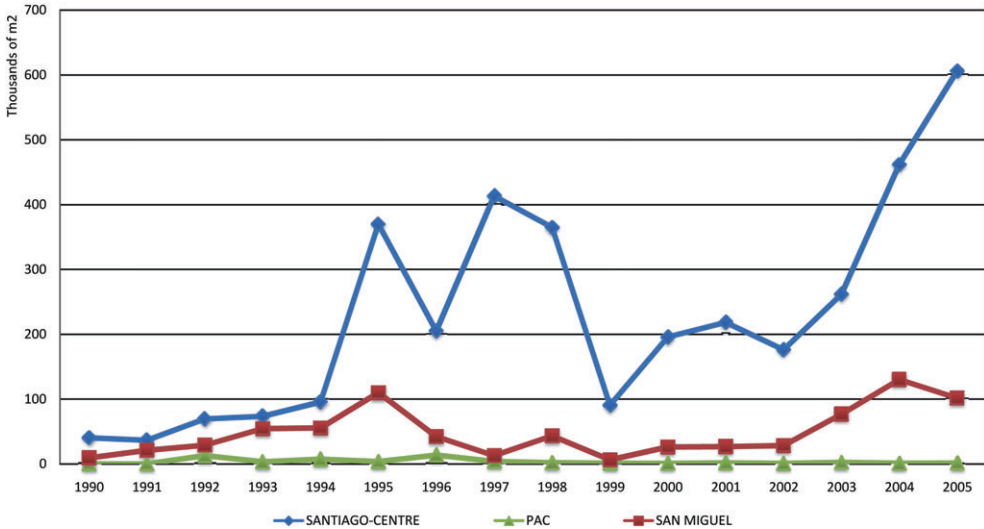
There are several positive effects associated with this market that are attractive to peri-central municipal governments, namely: amenities and commercial uses related to residential areas that flourish in the renewing neighbourhoods; increased municipal revenues for building permits and garbage collection; and an improved perceived socio-economic status in renewed areas. Yet in terms of land taxation and territorial repopulation, the effects of this market are much more limited. In the first place, it does not help to increase local land taxation because land taxes are collected and redistributed centrally in Chile (Smolka and Amborski, 2003). Moreover, since 1959, every new dwelling under 140 m<sup>2</sup> in size has been exempt from land tax. In the second, overall this policy has been less effective at bringing about repopulation within the URSA than MINVU expected during the initial years of the programme. For the period 1992–2002, the 10 municipalities covered by the URSA experienced depopulation at an average rate of –9.1%, while the 34 metropolitan municipalities of Santiago increased their populations at an average of 13.7%, and the five fastest-growing peripheral municipalities saw an average increase of 51.4%.

There may be three possible reasons for this. First, it is evident that the power of demographic recovery associated with the URS has been limited only to the most fashionable central and peri-central neighbourhoods. For instance, the 13 most renewed

**Table 1** New urban renewal units sold per municipality, 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	TOTAL	%
Santiago-Centre	1,087	2,790	3,527	1,599	2,186	1,198	1,449	1,746	3,408	5,551	8,330	32,871	76.51
San Miguel	284	371	152	40	70	66	97	246	441	478	554	2,799	6.52
Quinta Normal	7	202	131	133	33	137	124	317	412	211	469	2,176	5.06
Recoleta	1	21	27	12	112	178	95	165	215	600	702	2,128	4.95
Independencia	23	198	18	79	4	0	0	136	80	382	556	1,476	3.44
Estación Central	80	92	102	98	46	46	34	186	217	88	61	1,050	2.44
San Joaquín	22	28	98	3	4	8	10	3	7	4	96	283	0.66
PAC	0	41	0	18	76	40	4	0	0	0	0	179	0.42
Total	1,504	3,743	4,055	1,982	2,531	1,673	1,813	2,799	4,780	7,314	10,768	42,962	100.00

Source: Arriagada *et al.* (2007: 33)



**Figure 3** Built square metres for residential use in four municipalities of URSA (1990-2005) (source: Observatorio Urbano (MINVU, 2008b))

districts of Santiago-Centre municipality (out of a total of 29) showed a population increase of 6.7% between 1992 and 2002, which was only half the metropolitan average (INE, 1992; 2002). Second, the fixed 200 UF bonus per unit impels developers to produce mainly small units (currently as small as 20 m<sup>2</sup> studio-flats) that attract only small households (which also tend to leave these flats as soon as their households expand). Third, as Rodríguez (2007) claims, many of those moving in actually come from the same municipality and thus do not represent real repopulation.

Partly because the URS had limited capacity to bring people back to the inner city, MINVU launched a second additional strategy in 2000, namely the conversion of the former Cerrillos airport into *Ciudad-Parque Bicentenario*, a projected new 250-hectare development to be included within the URSA. The site is located to the west of PAC and is designed for high- and mid-density housing aimed at the middle classes, offices, a 'Central Park' of 50 hectares, several additional amenities financed by the central state, and motorway connections to the CBD. This project would bring 75,000 new inhabitants to the area (Galilea, 2006).

Yet more radical changes have been experienced by Santiago's urban renewal market since the late 1990s. The so-called Asian Crisis, which started in 1998, reduced to negative the average annual growth of national gross domestic product in a single year (IMF, 2008).<sup>6</sup> This national economic contraction starved many small-scale developers of financial support, making them disappear, whilst property sales within URSA were collapsing. Figure 3 shows the variations in square metres built in Santiago-Centre and San Miguel during this period, while PAC's property market remained stagnant.

After the crisis, the property market within URSA, hitherto composed of a wide range of large and small building companies, contracted to a handful of agents with larger capital, production scale and financial funding capacity. In 2004 there were only 12 urban renewal firms in URSA (Rojas, 2004), yet this number seems to have decreased to 6 in 2007, according to the past CEO of CORDESAN (interviewed in 2007).<sup>7</sup>

6 National GDP annual growth was 3.3 in 1998, -0.4 in 1999, 4.5 in 2000, 3.5 in 2001, 2.2 in 2002, and 4 in 2003. The latter year marks the beginning of a recovery.

7 The exact number of developers operating in an area is rather obscure in Santiago, since the same large firms can use several different brand names for tax purposes.



**Figure 4** Views of new residential buildings built with Urban Renewal Subsidy (URS). Images (a) and (b) are blocks built in Santiago-Centre municipality. Image (c) shows blocks built in San Miguel municipality

The URSA market was becoming increasingly oligopolistic. This was paralleled by increases in the average size of the buildings and an increasingly homogeneous architectural style (see Figure 4). Also, after the crisis, developers became gradually more dependent on external financial credit, mainly Spanish pension funds, in a country where currently 24% of national bank credits go to the property market, 50% of this credit is controlled by foreign banks, and 27% is controlled by Spanish banks only (Kouyoumdjian, 2008). This change added financial volatility to the urban renewal market of Santiago.<sup>8</sup>

Since then, these few and enlarged developers have integrated the chain connecting the purchase of land, construction, marketing, application for subsidy and sales. Moreover, property firms within the URSA have started to buy sites long in advance, not necessarily developing them, but awaiting public investment in infrastructure and new, more permissive local guidelines.

The creation of these idle land banks is a traditional entrepreneurial practice in the property market of Santiago (Sabatini, 2000). A report in 2006 counted a total of around 8,000 hectares of empty or unused lots within the 34 municipalities of Greater Santiago (this is only 500 hectares less than the entire URSA). This is possible in this city because the law against land speculation was removed by the military dictatorship (1973–1990), and regulations to control these practices have been left extremely soft by the more recent democratic governments (Trivelli, 2006).

These inadequate regulations on land speculation make it possible for sites to stay abandoned for years, increasing the dilapidation and devaluation of their surrounding spaces. Other factors of deterioration associated with this sort of large-scale construction are the radical changes of scale produced in many neighbourhoods, the shadows cast by

<sup>8</sup> In 2008, amidst another economic crisis in Chile, sales of new properties in Santiago-Centre were down by 50% (Kouyoumdjian, 2008).



large buildings, and the loss of privacy experienced in what are usually one- or two-storey dwellings surrounding the new redevelopments (Rojas, 2004). Therefore, due to the speed of property deterioration and devaluation in the environments surrounding these blocks, it is not unusual that once developers enter a neighbourhood, many small land-owners rush to sell out at the best price they can.

Although there have been some examples of local-scale regulatory control of this market — for instance, an important reform to the local master plan of Santiago-Centre came in 1997 that sought to reduce permitted heights and tighten guidelines on facades in heritage areas — developers usually respond by simply moving into less regulated territories, seeking to expand their profits (Arriagada *et al.*, 2007). This explains the spatial expansion of the property market within the URSA, and the uneven closure of the rent gap in the peri-centre of Santiago.

## The rent gap theory: a hypothesis for urban devaluation and gentrification

### Rent gap as creative destruction

The rent gap theory may well explain the expansive and relatively destructive nature of the urban renewal observed in Santiago's peri-centre as a result of the relationship between the accelerated need for profit by the property market and the fixed nature of the urban space. Unlike consumption-based approaches to gentrification, which see the phenomenon as motivated by 'returning' middle classes who revalue deteriorated neighbourhoods, the rent gap theory understands urban disinvestment and devaluation as a deliberate and necessary condition for subsequent processes of ground rent appreciation, and therefore gentrification.

From this standpoint, gentrification is essentially Schumpeterian creative destruction (Schumpeter, 1976), comprising a chain of disinvestment, devaluation and destruction of formerly invested capital. This chain readjusts the organic composition of capital and recalibrates the rate of profit (upwards), in ways which establish opportunities for new rounds of investment of fixed capital in urban space (Smith, 2000). In a 'normal' situation, fixed capital (e.g. building value) devalues as long as the investor receives returns. Meanwhile, the physical structure must remain and cannot be demolished until the invested capital has returned all its value, as the 'accumulation process experiences uncomfortable friction when capital (i.e. "value in motion") is trapped in steel beams and concrete' (Weber, 2002: 519).

However, when the general economic system makes it possible to produce newer and more productive fixed capital, and this happens especially in expanding urban economies, this outmoded capital has to be devalued even faster and more profoundly (Harvey, 1985). This is precisely what Marx defined as 'general devaluations or destruction of capital' (1973: 446–7), or one of the immanent means in capitalist production to check the fall of the rate of profit and accelerate accumulation of capital-value through the creation of new capital.

In an inner-city area, both capitalized (CGR) and potential ground rents (PGR) start at the same level when a site is first developed. However, after a certain time changes in the surrounding urban development push up a site's potential land rent to a certain level correlated to a greater intensity of capital investment and/or a 'higher' type of use. Hence, the rent gap represents an economic pressure on a site, which has become increasingly mismatched with its 'highest and best' use (Smith, 1979: 543). Improvements to the parcel would become obsolete and the capitalized land rent would decline. Therefore, eventually, as Clark (1995) and Hammel (1999) argue, an economic pressure might emerge, impelling the site towards redevelopment and higher intensity and type of use.

As a process of specifically urban creative destruction, and as the epitome of the class-monopoly control of rent, Smith's five-stage model of decline and destruction is useful for understanding the production of gentrification. Smith describes this as a 'rather

schematic attempt to explain the historical decline of inner-city neighborhoods in terms of the institutions, actors, and economic forces involved' (Smith, 1979: 543–5) and one that is not meant as a definitive description of every neighbourhood's process of devitalization (Smith, 1996: 63). At this point, the theory to a large extent differs from neoclassical perspectives of gentrification since it stresses the agency of:

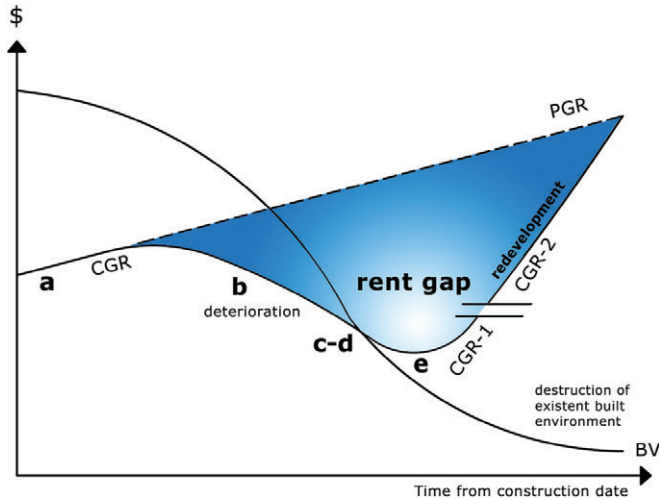
the various agents involved in supplying 'capacities' at given locations, e.g. financiers, developers, property owners. These are seen to be active in the process, not only in so far as they are the most influential agents in development and redevelopment activities, but also in so far as they actively contribute during the interim to rent gap expansion and the depreciation of building capital (Clark, 1988: 246).

The formation of rent gap is an outcome of the operation of land and housing markets, a chain of deliberate events that range from:

- 1 *New construction and first cycle of use*: House prices reflect the value of the structure and improvements plus the ground rent. The house value would be only slightly diminished with use, while capitalized ground rent increases due to surrounding urban development.
- 2 *Landlordism and homeownership*: In view of the gradual and inevitable devaluation of their buildings, homeowners and landlords tend to de-invest, producing a decline in the quality of the building, a considerable decrease in capitalized ground rent, and an expanding effect of lowering rents in the rest of properties in the neighbourhood.
- 3 *Blockbusting and blow-out*: Real-estate agents tend to accelerate building devaluation, exploiting racist (or classist) outlooks of decadence among homeowners (in North American cases, provoking fear among white owners about an influx of new black or Latino residents, just to get hold of their properties at lower prices and resell them at higher prices precisely to black or Latino newcomers). Blow-out is the outward spreading of slums from the inner city in order to amplify the rent gap 'and the consequent squeezing of still healthy outer neighborhoods against secure upper-middle-class residential enclaves lying further out' (Smith, 1996: 66).
- 4 *Redlining*: Financial institutions that could operate in the neighbourhood declare that these areas are not financially viable, further hampering access to funds for maintenance and repair by local people. Aalbers (2006) has observed that in redlined urban areas there is an observable increased presence of ethnic minorities or socially excluded groups.
- 5 *Abandonment*: Progressively, properties are being abandoned, even sound ones, as they stop being profitable. The tightening of national and municipal urban guidelines and costs of insurance play key roles in this process. Finally, the neighbourhood deteriorates to the extent that each of the properties can be bought for a very low price. This is the time when *gentrification* becomes a real possibility (Darling, 2005).

The rent gap is produced in a given spatial and temporal context, resulting from a complex pattern of infrastructural investment, disinvestment and reinvestment that allows that areas with large rent gaps (when other conditions are fulfilled) can be widened and closed through the devaluation and appreciation of the capitalized ground rent.

However, it is also important to observe the twofold nature of the actual capitalized ground rent that seems to exist in highly owner-occupied areas like the Santiago *poblaciones*, for the particularly large scale of the privately led urban renewal in this city. At a certain constrained level, CGR can be capitalized by current homeowners if they



Note: PGR = potential ground rent; CGR = capitalized ground rent; BV = building value. Phases: (a) new construction, (b) homeownership, (c) blockbusting and blow-out, (d) redlining, (e) abandonment

**Figure 5** Phases of production of rent gap in time, and differentiated CGR-1 and CGR-2 (source: Author's elaboration based on Clark, 1995)

rent their properties or put them on the market (namely, CGR-1). However, following radical changes in urban and building regulations, a considerably higher level of potential ground rent may emerge. If this is to be capitalized, it can only be done by developers who undertake large-scale housing production, and are able to brush aside the strict restrictions imposed on more modest, small-scale housing projects enshrined in national and local building regulations. This second level can be called CGR-2.

Both levels inevitably imply transferring land property rights, creating chances to capitalize the ground rent, from small-scale owners to the current real estate market of urban renewal. This point is important, since the Marxian contradiction between productive capital and idle landlordism — as an inherently capitalist conflict (Jaramillo, 1981; Marx, 1984; Harvey, 1989) — seems to be resolved here through the full appropriation of both resources, the land and the means of exploiting it, by urban agents who monopolize the latter. Based on Smith (1979), and more specifically Clark (1995), and including these two different levels of rent, the rent gap theory can be represented as in Figure 5.

When analysing the rent gap, it is also important that the capitalized ground rent (CGR) be understood as the aggregated rent that a plot generates, or land value plus or minus the building value (BV) set on it (it would be 'minus' if the cost of demolishing decrepit buildings is high). So ground rent is composed of two independent types of value: that of the land and that of the building (Smith, 1996: 62). The value of buildings must be conceptually separated from the value of the land, even if the actual selling price of a plot usually incorporates in a single amount the value of the building and the land (Smith, 1987).

Yet in practice it is difficult to separate CGR from BV due to the lack of disaggregated information on land and building prices. For this reason, some scholars argue that an aggregated index of land and building values would be sufficient for observing rent gap, since 'land and housing price data [assembled] are capable of disclosing a rent gap should it exist' (Badcock, 1989: 127).

### Rent gap analysis adapted to Santiago

In order to analyse the variations of CGR and BV in Santiago's peri-centre (PAC and San Miguel municipalities between 1990 and 2005) a method based on 'transects' or sections is used. These transects are drawn, starting from the city's historic centre (*Plaza de Armas* square) near Santiago's downtown, projected southbound in parallel to main north-south transport corridors, through Pedro Aguirre Cerda (PAC) and its neighbouring municipalities (see Figures 2 and 8 for maps of the transects).

The data used for showing these values is the Santiago Property Market Bulletin produced quarterly by Trivelli Consultants during this period. This data is one of the only two indexes of land value available for the city, and comprises 305 sub-zones, covering the 34 municipalities of Santiago, as seen in Figure 2 (Trivelli, 2005; 2007). Transect 1 covers 20 sub-zones, whilst Transect 2 covers 14 sub-zones. Values shown are expressed in UF/m<sup>2</sup>, so they are automatically adjusted to inflation.

Trivelli's data gives an estimate of the rent that property owners expect to get from their properties in the market. Every piece of land offered in Santiago, advertised in the traditional *El Mercurio* national newspaper, is recorded by this firm (the usual way to advertise is through this newspaper). The index considers factors such as: price, property size, and location. The method avoids duplicated offers advertised over several weeks.

However, the data certainly does not reflect an exact capitalized rent, due to some of its methodological limitations. First, the values shown are only averages within sub-zones (whose size in the peri-centre is 125 hectares on average). Second, values of buildings and land are considered together as a whole. Third, repetitions of 'null' values over time in certain sub-zones mean there has been no supply there during the quarter recorded or that internal property trades have not been advertised in the newspaper (this happens often in the micro-scale property markets of Santiago's *poblaciones*). Null values, however, do not necessarily mean that the ground rent has been devalued to zero because of high demolition costs or other causes.

Nonetheless, in sub-zones where Trivelli's values are consistently null, cadastral building values contained in the National Tax Service, or *Servicio de Impuestos Internos* (SII), database<sup>9</sup> may help to deduce a CGR. These data also have a higher level of disaggregation, being at the level of individual blocks. However, since they are constructed for tax purposes, they usually underestimate (though sometimes overestimate) building values. Moreover, they only show a static situation for the year 2003 (SII disclosed this data that year).

In contrast, the analysis of Potential Ground Rent (PGR) conducted in PAC municipality consists of an estimation of PGR from the different guidelines enshrined in the existing and proposed versions of its master plan. This methodological approach is justified in cities of relatively accelerated growth and liberalized urban regulations like Santiago, where the permitted building capacity in an area can be quickly realized by developers within a decade or so. As such, the estimation of PGR is produced according to the following formula:

$$PGR = (NBP - LV - BC)/P$$

where NBP is new building price, or the market price of the total number of units permitted by local urban guidelines on the plot according to the building capacity; LV is land value paid by the developer to the homeowner at its current price; and BC are building costs, or the sum of demolition costs, realtor operations, building permit taxes and all other costs involved in the production of the new building. Finally, P is the plot

9 In the appraisal of buildings the following factors are considered: the quality and the material of its architectural structure, some technical specifications, age, building costs and localization within the municipality and in respect to the nearest market centres (SII, 2006)

area measured in square metres ( $m^2$ ). The building capacity is deduced from the setback plane (*rasante*) which is  $70^\circ$  in Santiago, front yard line (*antepatio*), building density, and specially plot area ratio (*constructibilidad*),<sup>10</sup> that increases from 30–50% when several plots are merged into a larger one, according to the law (Wurman and Torrent, 2006; Gobierno de Chile, 2007b).

For the calculation of NBP, full development of the plot area ratio increased by an extra 30% is assumed, an average size of residential apartments of  $65 m^2 + 10\%$  for communal areas (total  $71.5 m^2$ ) and an average market price per residential unit around 1,300 UF (US \$50,000) according to prices advertised in the media. It is assumed that the average building cost is 12 UF/ $m^2$  plus 30% additional soft costs and building permits (which is in fact a high percentage of additional costs).<sup>11</sup> Table 2 below analyses PAC guidelines according to these assumptions.

Yet all these calculations are in reality a matter of developers' expertise, as building and extra costs can both be lowered by experienced firms who make their building processes more efficient. Accordingly, these values deliberately represent a rather pessimistic estimation based on low expected revenues so that it remains below the profitability levels of real estate developers.

## The URS and its effect on CGR variations in the southern peri-centre

### Transect 1

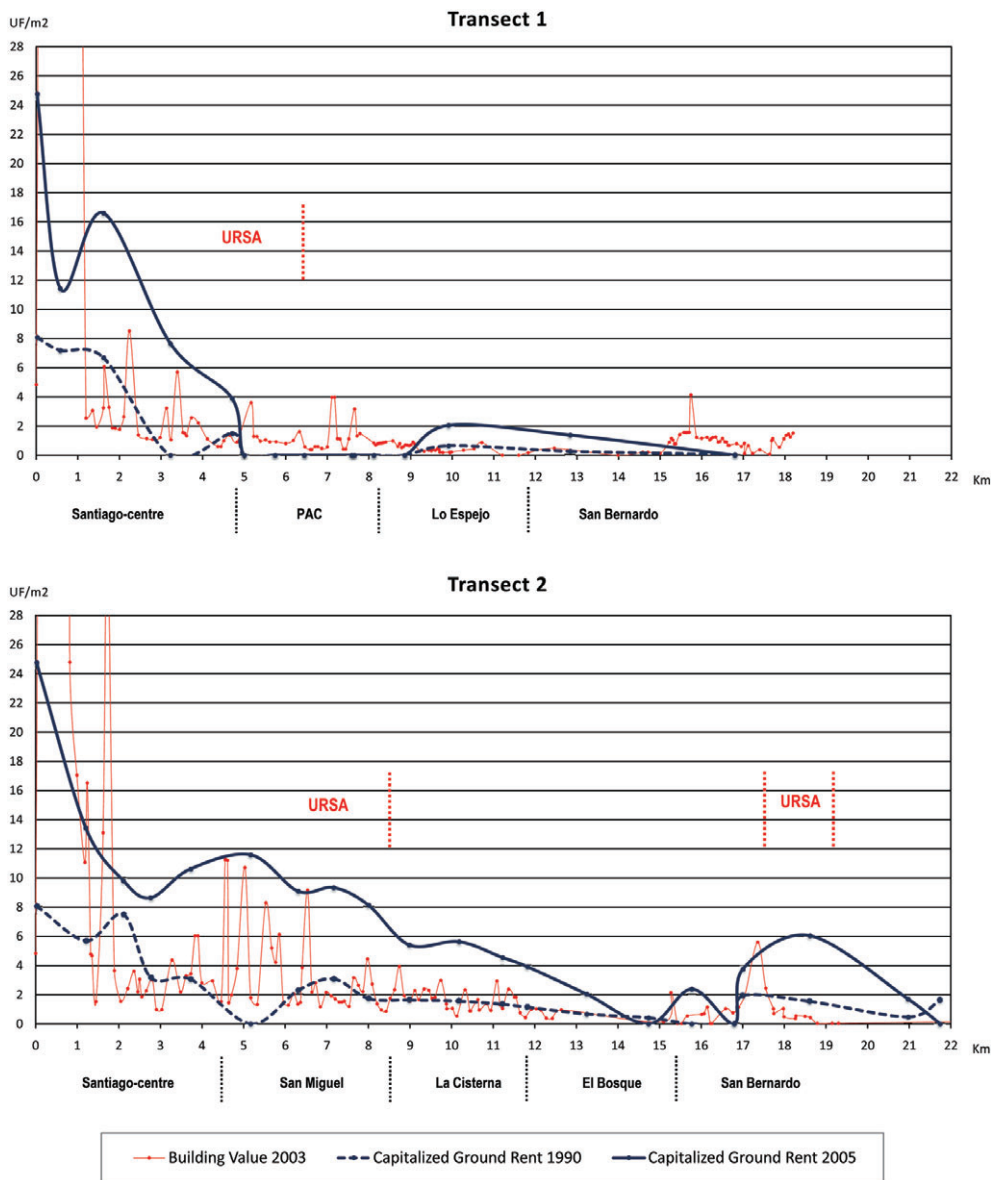
Transect 1 in Figure 6 shows the impact of the subsidized urban renewal market on the ground rent in Santiago-Centre municipality. Near the downtown, land values increased from almost 8 UF/ $m^2$  to 16 UF/ $m^2$  between 1990 and 2005. Similar growth can also be observed in the south of the municipality, yet with progressively lower levels, because, in general, the southern quarters of Santiago-Centre have been traditionally undervalued.

In contrast, Pedro Aguirre Cerda municipality has experienced neither the processes of urban renewal nor the increased average land rent levels found in Santiago-Centre, even though 60% of its territory is contained within the Urban Renewal Subsidy Area, and it is also only a step away from *Ciudad Parque Bicentenario*. In the north of PAC, former industrial plots have been abandoned since the 1980s, generating negative effects on their environments, land value depreciation and physical barriers that stop the 'waves' of urban renewal spreading from the north (SGA-IBERSIS, 2000). The four Trivelli sub-zones in PAC consistently show null values during the period (intermediate years are not shown in the Figure for clarity). PAC so far is the only territory in Transect 1 that has not experienced noticeable land value increases associated with redevelopment, notwithstanding, in general terms, that the potential ground rent in its local territory (regardless of how high it is) may be still fully capitalized in an eventual process of renewal.

Although land values shown for PAC are null, the cadastral building values observed across the municipality (red line in Figure 6) may help to calculate a CGR. This data shows more variable indices, reaching 4 UF/ $m^2$  at two exceptional points in PAC's northern and southern areas, a municipal park and a community centre respectively. In other places the BV falls below 1 UF/ $m^2$ , making an average building value slightly

10 Also known as Floor Area Ratio in the US.

11 My approach is to estimate PGR differences using two classical methods, namely Clark's (1988) that deduces PGR from algorithms related to historical changes of population and houses sold during long historical periods (1860–1985), and Badcock's (1989) that supposes PGR from the market prices of serviced vacant lots. This difference is justified here both in the need to pay attention to the roles of national and local urban regulations in the production of the 'best and highest land use', and because historical land value records for Santiago are extremely limited in time.



**Figure 6** Transects 1 and 2 of property values (assumed as CGR) for 1990 and 2005, and tax appraisal of building values in 2003 (source: author’s elaboration based on land value database (Trivelli, 2005) and SII (2003))

above 1 UF/m<sup>2</sup>.<sup>12</sup> This average could be considered as a minimum value to be paid to owner-occupiers if these plots were sold on the market (i.e. CGR-1), yet, as a market price, this value may also increase to 2 UF/m<sup>2</sup> in the event that demand for renewal in these areas goes up.

As Transect 1 shows, the CGR increases again in southern municipalities of Lo Espejo and the western area of San Bernardo, the latter territory being peripherally located and

12 In Santiago downtown, building values exceed average CGR values because these are mainly office skyscrapers.

still offering non-developed land that is likely to be valued at a considerable rate when it is annexed to the city. In general, a larger-scale property market and other social housing subsidies (not urban renewal) operate in these two municipalities, with the sole exception of the small URSA in the historical centre of San Bernardo, analysed in Transect 2.

Were land-owners in PAC to sell their properties at a price of 2 UF/m<sup>2</sup>, this value might not be sufficient to pay off the housing needs of the households that inhabit it. For instance, in two of the PAC *poblaciones* most affected by the proposed new building regulations (Neighbourhood Units 15 and 16, see Figure 7), the size of residential plots is between 200 m<sup>2</sup> and 330 m<sup>2</sup>. For a plot of 300 m<sup>2</sup>, a CGR-1 of 2 UF/m<sup>2</sup> implies a sale price of 600 UF, enough for one household to replace its old property with a new apartment no larger than 45 m<sup>2</sup> (worth 800 UF, including the 200 UF subsidy) in a peri-central municipality similar in status to PAC, or conversely to make a down-payment on an affordable but bigger house in some distant peripheral location in the metropolis.

However, as the 2002 national population census showed, 20% of PAC residential dwellings house two or more households. In cases where several households share a plot, 600 UF is clearly not enough to satisfy their housing needs. This situation becomes even more problematic in plots of 200 m<sup>2</sup> or 160 m<sup>2</sup>, normal sizes in La Victoria *población*, located in the 'heart' of PAC, as seen in Figure 7. The latter size would imply a payment of 320 UF, which means that the household (or households) would then have to find replacement accommodation in a poorly serviced estate in the periphery.

## Transect 2

Transect 2 (Figure 6) shows a relatively similar situation with regard to CGR to that of Santiago-Centre municipality, which has seen a sharp increment of 16 UF/m<sup>2</sup> over the 15-year period, with a tendency to decrease and increase again towards the south (around 8 UF/m<sup>2</sup>), due to the intense redevelopment experienced in the southern quarters of Santiago-Centre after 1995 (this year is not shown in the Figure). More radically, San Miguel, which is 100% covered by URSA, shows a notable variation of CGR of 6 to 10 UF/m<sup>2</sup> during the period. This appreciation is probably an effect of the 200-UF subsidy on its local property market. This is because until 1992 San Miguel's property market was relatively stagnant, despite the fact that its two fashionable bourgeois neighbourhoods, El Llano Subercaseaux and Lo Ovalle, had been connected to the Metro underground network since 1978 (Trivelli, 2007). In general, this form of urban transport was an important factor in attracting building development in Santiago, but in the case of San Miguel, it did not prove sufficient to trigger its local property market until the URSA was set up.

Transect 2 shows that land values tend to decrease in the southern municipalities of La Cisterna and El Bosque. This is a result of the lower accessibility of these more peripheral territories. However, in distant San Bernardo, average land values have risen from 2 UF/m<sup>2</sup> to 8 UF/m<sup>2</sup> due to the existence of an additional, smaller URSA located in its local centre.

Building values (red lines in Figure 6) in San Miguel are uneven, showing where there has been high-intensity urban renewal and where there has not, or where there are still vacant plots or even where some areas might be experiencing devaluation. But overall, Transect 2 shows that the existing rent gap prior to 1990 has been intensively capitalized in San Miguel, because since 1995 the CGR in this municipality has tended to remain roughly between 6 and 12 UF/m<sup>2</sup>. However, these values could still rise moderately given the general metropolitan tendency for land values to increase due to urban infrastructure investments.

The rent gap might well be near closure in San Miguel, as available sites in good locations with low CGR-1 become exhausted there. Thus, a slowdown in this local real estate market niche might be expected in the near future. However, as observed above in the URSA, when a neighbourhood becomes saturated, or when urban guidelines become more restrictive in a certain zone, property firms leave and move into other neighbourhoods whose rent gaps are still wide. Therefore, the eventual closure in San Miguel's rent gap creates potential opportunities for PAC to be opened as a market niche, in so far as large-scale developers could capitalize a considerably high CGR (namely CGR-2) there. The following section gives an estimate of this potential ground rent in PAC achieved through its local master plan.

### The quest for flexible regulations in the PAC master plan

Since 1990, practically all local governments within the URSA, with technical support from MINVU, have attempted to redraft their local urban guidelines, seeking to attract (or intensify already existing) urban renewal into their territories (MINVU, 2008a) by incrementing the PGR implicit in those regulations. In San Miguel, a new master plan started to operate in 1988 (San Miguel Municipality, 2005) and was then subject to several reforms over the years. This helped to set up a good context for renewal, like Santiago-Centre's master plan, which between 1991 and 2005 received 29 amendments (Contreras, 2005).

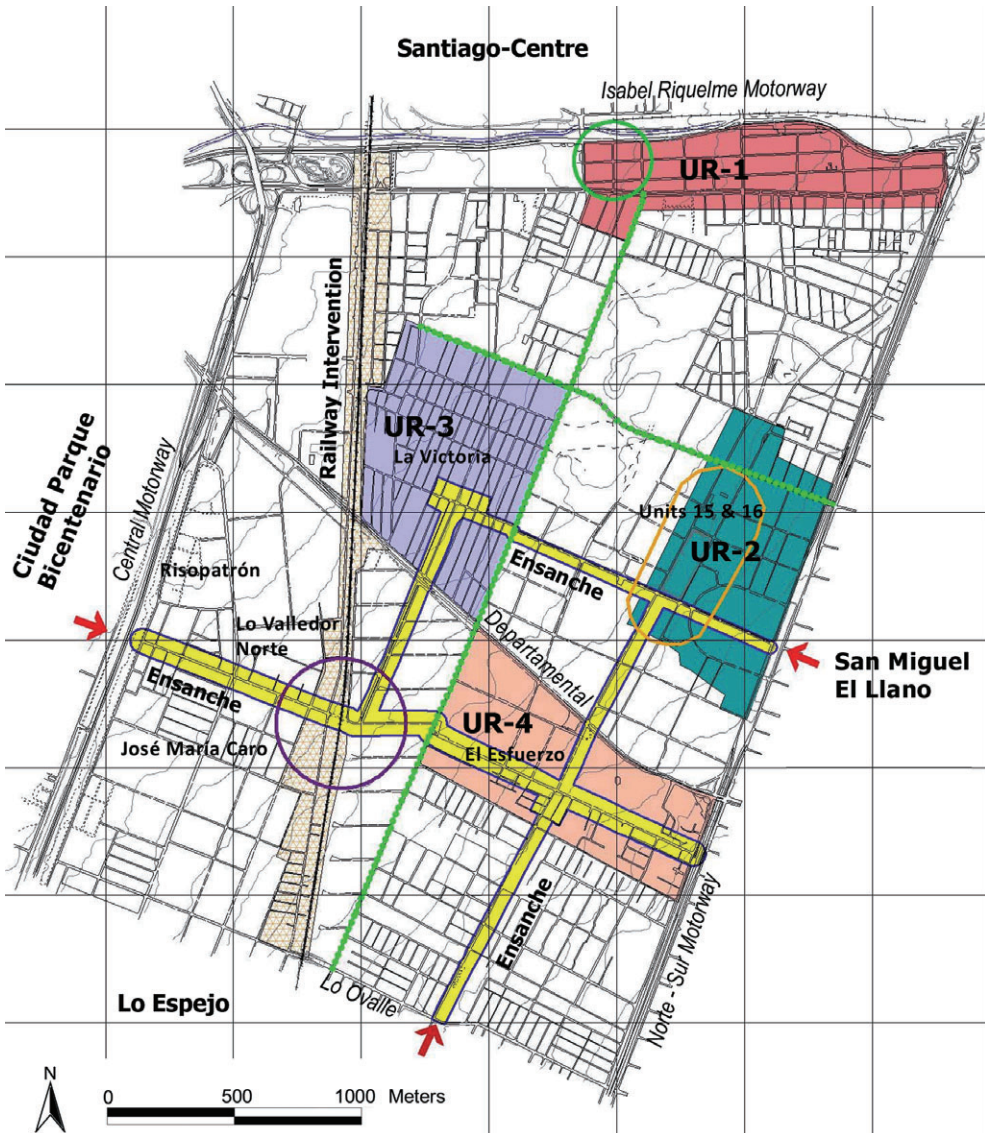
In the case of PAC, from 2003 onwards its local government attempted to pass a new master plan aimed at: attracting new higher-income dwellers into some specific residential neighbourhoods (especially in PAC north-east); repopulating these targeted areas; bringing amenities and other urban activities to these places (attracted by a potentially reinvigorated residential market); widening metropolitan and local main roads; and zoning more green areas. The latter two regulatory changes would imply considerable land expropriations, since the state in Chile has compulsory purchase power in cases of public utility, such as creating green spaces or widening roads (Gobierno de Chile, 2007a). PAC local government argued that all these reconfigurations were justified by the main goal of the already existing PAC Local Development Plan, which is 'to put value into the municipality, taking advantage of its strategic location at 15 minutes from the metropolitan downtown' (PAC Municipality, 2000).

The initial strategy for the new local master plan was simple: to radically upgrade the zoning to mid and high density in the four quarters of the municipality targeted as strategic for urban renewal (coloured in Figure 7), hence increasing as much as possible the potential ground rent in these areas. As the municipality argued, the new plan would benefit owner-occupiers who, from then onwards, would be able to sell their plots at higher prices.

Zones UR-1 and UR-2 were to be developed with higher building density as the proposed new regulation considerably increased the building capacity permitted there. However, while zone UR-1 was intended to concentrate services and generate a sort of metropolitan sub-centre in the northeastern quarter of the municipality, because this is the closest and best connected to Santiago-Centre downtown, UR-2 was clearly zoned for residential renewal with commercial activities and several connections toward El Llano Subercaseaux, the intensively renewing neighbourhood in San Miguel. The increases in density (people/hectare) and plot area ratio permitted, hence the increased building capacity, are shown in Table 2. Once approved, these changes would have clearly opened the door to a building density similar to that in San Miguel, permitting average heights of around 18 storeys.

The PGR was switching from an irrelevant value to a more than interesting prospect for urban redevelopment. While under the existing guidelines the maximum PGR in these zones currently surpassed 8 UF/m<sup>2</sup>, under the proposed new regulation, this would have at least almost doubled to about 15 UF/m<sup>2</sup>.





**Figure 7** Main structure of the new PAC local urban master plan proposed in 2005 by the municipal administration (source: PULSO Consultores, 2005b)

Meanwhile, zones UR-3, namely the emblematic *La Victoria población* (Finn, 2006a; 2006b), and UR-4, the *El Esfuerzo población*, probably the most deprived neighbourhood in PAC, were also in some way targeted for urban renewal. Even though these areas maintained their building capacity as their estimated PGR remained at around 5.2 UF/m<sup>2</sup>, the municipal government still estimated that these areas were key for ‘a process of improving residences and neighbourhoods’ (Pulso S.A. Consultores, 2005a: 42–3). For this to happen, a projected new network of roads and squares called *ensanche* (shown in Figure 7 in yellow) was designed to cut across these zones. This intervention implied the widening of streets, improvement of pavements, changes of direction of traffic flow, merging of different parallel roads and, especially, the opening up of large scale ‘renewal squares’.

**Table 2** Existing and proposed urban guidelines in PAC, with estimation of PGR

	Existing PAC Building Guidelines			PAC Building Guidelines proposed in 2005		
	Existing Guidelines for Zones UR-2, UR-3, UR-4 and <i>Ensanche</i> Buildings at Neighbourhood Scale	Existing Guidelines for zones UR-2, UR-3, UR-4 and <i>Ensanche</i> Buildings at Municipality Scale	Existing Guidelines for Special Areas within Zone UR-2	Existing Guidelines for Zone UR-1	Zones UR-1 and UR-2	Zones UR-3 and UR-4 Preferably Residential
Max. density allowed (People/Hectare)	300	300	300	300	700	
Min. plot size (m2)	120	400	120	200	500	120
Max. site coverage (%)	80	80	80	80	80 (0-1 floors), 40 further	80
Max. plot area ratio (X multiplied by plot size)	1.2	1.6	1.5	1.5	2.5	1.2
Allowed building typology	a	a	a	a	a	a
Max. building length in terrace type-% of plot length	80	80	80	80	60	-
Max building height for detached blocks (metres)	b	b	b	b	No Limit	No Limit
<i>Estimated potential ground rent (UF/m2)</i>	5.2	8.2	7.5	7.5	15.1	11.3

<sup>a</sup>Detached, semi-detached, terraced house

<sup>b</sup>In accordance with setback plane and building separation distance established by national regulation (MINVU, 2007)

Two large squares were drawn precisely in the centres of La Victoria and El Esfuerzo *poblaciones*, potentially producing expropriations that would mean that entire blocks would have to disappear. Whereas it is true that the widening of most of these roads was in accordance with the Metropolitan Master Plan of Greater Santiago, the fact is that the west–east axis connecting PAC with *Ciudad-Parque Bicentenario* (see purple circle in Figure 7), was independently added by PAC municipality. The ‘renewal square’ traced in the highly consolidated La Victoria *población* would have totally disrupted the centre of its social life and commercial trade. The planned image for these quarters shifted radically from the existing one- or two-storey dwellings, to newly built four- or five-storey blocks, as the building capacity in the boundaries of these projected axes was upgraded to a PGR of more than 11 UF/m<sup>2</sup>.

However, affected by these planned axes of high-density renewal, most PAC low-income residents opposed the new plan. The proposed *ensanche* system, which the local government saw as an improvement in the connectivity of PAC, was seen by local residents as a means of muffling traditionally politically ‘troublemaking’ *poblaciones* like La Victoria, El Esfuerzo, Risopatrón, Lo Valledor Norte and José María Caro (see Figure 7), visually separating them from the rest of the areas scheduled for renewal.

Moreover, properties in many of these *poblaciones* were left out by this new regulation. The proposed new master plan penalized existent lower-density typologies. The guidelines regarding maximum building length for terraced houses were hardened (from 80% to 60%) whilst the compulsory minimum plot size in the most-targeted zones was augmented (from 200 m<sup>2</sup> to 500 m<sup>2</sup>). These two local guidelines directly reduced the chances for housing upgrading or small-scale densification in those *poblaciones*.

Thus, from 2004 to 2005, several organized PAC neighbourhood committees proposed an alternative master plan. This maintained the PGR in most neighbourhoods roughly at its current level, defined only one specific zone of intense renewal (instead of four) in PAC’s northeastern quarter, and proposed a road network that produced much fewer expropriations than the ‘official’ one. The community demanded that the local authority redraw its original version according to these new lines. Although the specific elements of political struggle and negotiation of this process are not included in this article for space reasons, it is sufficient to say that the local government rejected the much less ‘flexible’ counterproposal that had emerged from the grassroots. As of 2010, approval of the new master plan in PAC is currently stalled.

### Devaluation of socially produced fixed capital: a form of institutional redlining?

PAC residents justified their opposition to the local government’s attempt not only because they envisaged a loss of already existing public space and a potential dilapidation of their properties if the market of large-scale urban renewal trickled down into PAC, but also, as seen above, because the new master plan limited the chances for upgrading small-scale dwellings in their *poblaciones*. Nonetheless, as the present section illustrates, the redrafting of the master plan was not the only factor that might have devalued PAC local space. Two additional ‘institutional’ factors were also constraining the chances for low-income housing to be upgraded: first, the mismanagement by Pedro Aguirre Cerda local government of a central-state programme named *Fondo Solidario de Vivienda*, aimed at upgrading housing, and second, the very limiting national building regulation that applies in PAC. The evidence shows that these two factors are interrelated.

This point is quite relevant because, so far in PAC *poblaciones* it has been rare for owners to deliberately disinvest or abandon residential space (as a stage of the gentrification process according to the rent gap model). The rich social milieu in many *poblaciones* of PAC acts as a ‘brake’ that slows down extreme dilapidation, creating collaborative mechanisms of solidarity which, notwithstanding their limited personal

financial possibilities and virtual absence of support from private financial capital (since generally, low-income residents are rarely granted bank credit in Chile), maintain their dwellings in relatively good condition.

It is precisely for this latter reason that since 2001, the central government (through an agency named SERVIU, attached to MINVU) started to provide subsidies for upgrading low-income, mid-density housing, namely the *Fondo Solidario de Vivienda* programme (FSV). In just a few years, the FSV has become the main state housing programme aimed at the lowest quintiles of the national socio-economic categorization,<sup>13</sup> subsidizing new houses and/or in-situ densification with a bonus (not a credit, because beneficiaries are exempted from paying mortgages) that in Santiago ranges from 330 UF (US \$12,380) to 370 UF (US \$13,880) per individual applicant. This subsidy is designed to use residents' own capacity for self-organization given that applications must always be collective. The FSV programme is also largely more flexible than previous individual Chilean housing subsidies, making it possible to build additional and rebuild dilapidated houses in situ (Gobierno de Chile, 2005). The municipal administration is indispensable for the local application of this programme because it is the connection between the community and the central-state source of funding; it grants 'demolition licenses' in cases of in-situ rebuilding; and it approves building permits in accordance with the national guidelines for social housing and its own local building regulations.

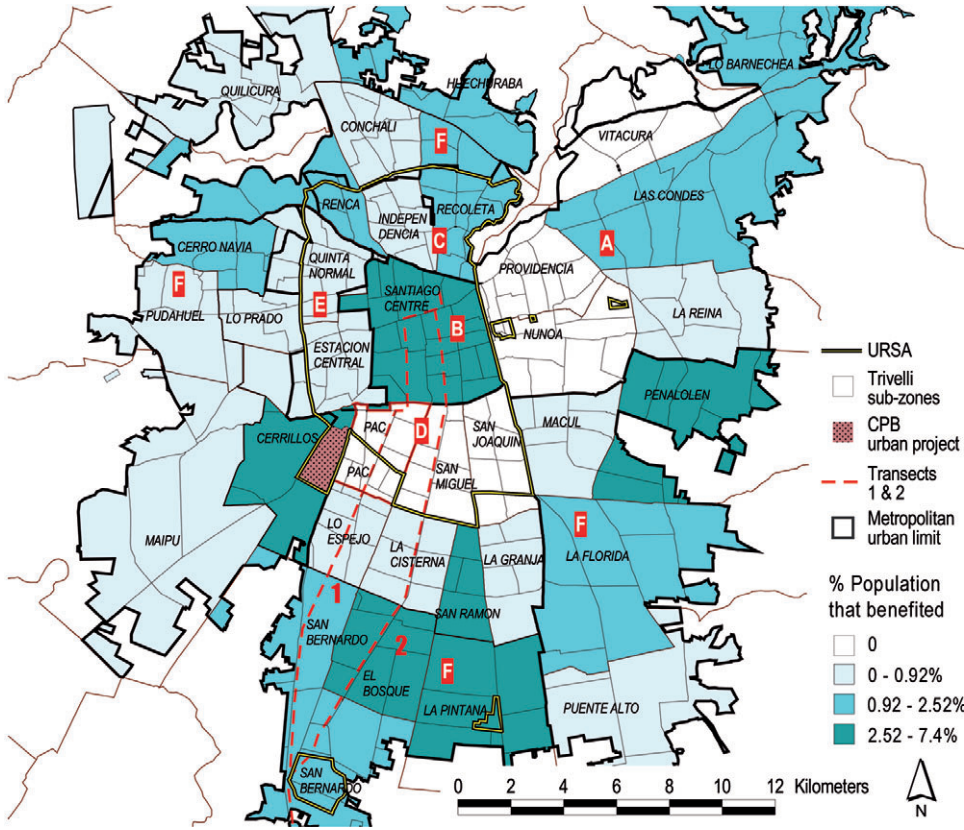
However, while in the 34 municipalities comprising Greater Santiago, nearly 300 FSV projects were developed between 2001 and 2006, benefiting 17,000 households (nearly 80,000 people), PAC and the two other municipalities comprising the southern peri-centre showed null results (labelled 'D' in Figure 8). The figure and Table 3 illustrate the results of this programme per municipality and macro-zone (i.e. homogenous group of municipalities).

The null result of the FSV programme in the southern peri-central area is astonishing. This area comprises Pedro Aguirre Cerda, San Joaquín and San Miguel municipalities, all of them included within URSA, configuring a vast zone of underperformance of the FSV in the southern inner city of Santiago. To some extent, it seems odd that well-known low-income municipalities like PAC show null results in the application of a fund that is precisely designed to upgrade low-income dwellings. When I interviewed the mayor of PAC in 2007 about the null results in FSV projects overseen by his administration, he claimed this programme was too new, thus PAC local people did not know about it and they hardly ever applied for these funds. However, in contrast, several central-state SERVIU interviewees suggested that there is some level of administrative responsibility here. The PAC mayor's answer was also contradicted by several other municipalities (similar to PAC), where the outcomes of the FSV programme were quite positive.

For instance, as can be seen in Figure 8 and Table 3, the percentage population that benefited from FSV in the western peri-centre is 1.31%, whilst in the northern peri-centre it is higher (1.64%). The rate in Santiago-Centre municipality is even more revealing, showing one of the highest rates (7.4%) in the metropolis. This territory still hosts a large number of deprived enclaves but it has one of the largest (and probably most efficient) municipal administrative apparatuses in the country and a population of only 200,000 (Valenzuela, 2003). Nevertheless, several lower-income peripheral municipalities, which, like PAC, have limited municipal technical resources, achieve similar levels of success to Santiago-Centre, such as Cerrillos, La Pintana, San Ramón and El Bosque. It has been acknowledged that these successful peripheral municipal governments have set up types of communal property firms for capturing FSV funds (MINVU, 2006).<sup>14</sup>

13 Between 2001 and 2006, a total of 2,000 FSV projects were allocated in the country, benefiting around 125,000 households. By 2006, the programme represented around 55% of the national system of social and 'affordable' housing subsidies (Astaburuaga, 2005; MINVU, 2006).

14 Yet the situation is much more heterogeneous in the periphery than in the inner city, where an average of 1.4% of the population benefited. Also, the six municipalities comprising the macro-zone



**Figure 8** People who benefited from the *Fondo Solidario de Vivienda* programme as a percentage of total macro-zone population, 2001-6 (source: author's elaboration based on SERVIU (2007) and census data (INE, 2002))

Probable mismanagement by the PAC administration should not be seen as the only cause for the lack of FSV projects built here. Another real limitation to the application of these projects are the existing national building guidelines, such as the standardized 70° of setback plane and the 40% of abutment contained in the *Ordenanza General de Urbanismo y Construcción* (General By-Law on Planning and Construction, OGUC hereafter). These guidelines seek to establish minimum levels of hygiene and security in construction and explicitly try to discourage the subdivision of small plots in the city. Overall, they make construction more difficult in the typical, small-sized plots (down to 160 m<sup>2</sup>) existing in many PAC *poblaciones*

Nevertheless, the OGUC contains exemptions for cases of ‘social housing’ that soften the tight norms related to minimum plot size, setback plane and distance to the adjacent property (Gobierno de Chile, 2007b). Even the percentage of abutment in a plot can be amplified to 70%, if the social housing unit is shorter than 3.5 metres, and to 60% if it is shorter than 6 metres. However, a necessary condition for the application of all these exemptions is that the plot and dwelling need to be labelled officially by the municipality as ‘social housing’, and this is where the real problem lies.

‘A’ in Figure 8 show a percentage of 0.61%. Nonetheless, this is the traditionally affluent *Barrio Alto* of Santiago, and this result would be even lower if several low-income enclaves situated on the fringes of these municipalities did not exist.

**Table 3** Households and people who benefited from the *Fondo Solidario de Vivienda* programme as a percentage of total macro-zone population, 2001-06

Key	Metropolitan Macro-Zone	Number of Municipalities	Total Macro-Zone Population 2002	Households that Benefited, 2001-06	Population that Benefited, 2001-06 (')	% Population that Benefited, 2001-06
A	Central-East cone	6 <sup>b</sup>	787,288	1,041	4,789	0.61
B	Centre	1 <sup>a</sup>	200,792	3,229	14,853	7.40
C	Peri-central North	3 <sup>a</sup>	347,217	1,236	5,686	1.64
D	<i>Peri-central South (PAC, San Miguel and San Joaquín)</i>	3 <sup>a</sup>	291,057	0	0	0.00
E	Peri-central West	3 <sup>a</sup>	306,312	874	4,020	1.31
F	Periphery	18 <sup>b</sup>	3,475,484	10,606	48,788	1.40
	Total Greater Santiago	34	5,408,150	16,986	78,136	1.44

<sup>a</sup>Municipalities that fully or partially benefited from Urban Renewal Subsidy

<sup>b</sup>Exceptionally, as seen in Figure 8, Ñuñoa, La Pintana and San Bernardo municipalities contain specific small URSAAs

<sup>c</sup>4.6 members is considered the average size of households in the first socioeconomic quintile (MIDEPLAN, 2003)

Source: Author's elaboration based on SERVU (2007)

According to the law, a unit of 'social housing' is defined as a property priced below 400 UF (US \$15,000). The municipality has to assess this value, based on the cadastral value of the plot and an estimate of the value of the dwelling according to a table of disaggregated costs of materials, published by MINVU quarterly (Gobierno de Chile, 2007b: 332). In this context, many plots in PAC *poblaciones* cannot receive grants as 'social houses' because the value of the dwelling and the land together exceeds 400 UF, notwithstanding the fact that their populations fall into the lowest two quintiles of the national socio-economic categorization (INE, 2002). These plots are, therefore, not able to take advantage of the laxer regulations aimed at social housing contained in the OGUC, and are thus severely limited to two-storey houses only, with tighter restrictions for a third storey.

Yet many PAC owner-occupiers expand their dwellings informally anyway, albeit precariously, and often dangerously, receiving no municipal technical supervision. The limited chances to add value to their social dwellings inexorably lead to a devaluation in their ground rents, whilst, paradoxically, the land and building values in their neighbouring territories increase.

## Final remarks

Santiago's peri-central *poblaciones*, originally created as working-class spaces, are pure use value. Their complex social and economic relations are inextricably engaged with their physical structures, even while this existing fixed capital seems irrelevant as exchange value when compared to the city's average property prices.

However, as seen in PAC, the national and local guidelines clearly restrict small-scale projects and mid-density densification. Even though some improvement (and appreciation) of the building value can be achieved by residents individually, or communally via the FSV programme, the capacity of residents to capitalize ground rent is limited by these regulations, no matter how the local potential ground rent increases in response to subsidies for urban renewal or changed master plans. Conversely, the capitalized ground rent in many of these *poblaciones* is considered by the local government as too high to be eligible for the application of more permissive regulations pertaining to small-scale construction. A paradox clearly exists in the peri-centre. Low-income residents simply cannot add decisively more value to their land, and this keeps the CGR-1 at its current low value. But a low CGR-1 could be immediately capitalized by owner-occupiers if they sell their plots to the market at their current price, as usually happens in the renewing low-income neighbourhoods inside the URSA.

The second, higher form of capitalized ground rent, namely CGR-2, is essentially *monopoly rent*, because this is only realized by the few agents with enough financial credit and large-scale construction capacity to enable them to brush aside the several tight building guidelines established by the national and local regulations. The CGR-2 not only implies an appropriation of the land but also of the means of producing its ground rent. And there is a clear separation between these two levels of ground rent. The lowest limit of CGR-2 depends on how devalued the residential space of the *población* is, whereas its highest limit is the PGR, only depending on how liberalized the local building guidelines are. If the attempted new regulations were passed in PAC in 2005, the CGR-2 would probably have reached a level up to 15 UF/m<sup>2</sup> in the most targeted areas for renewal, and above 11 UF/m<sup>2</sup> in the projected axes across La Victoria and El Esfuerzo *poblaciones*. In contrast, the CGR-1 would have remained at its probable level of 2 UF/m<sup>2</sup> in most PAC neighbourhoods.

Neil Smith once claimed that gentrification is 'a back to the city movement all right, but of capital rather than people' (1979: 547). Such an assertion seems to be substantiated today by Santiago de Chile's model of peri-central urban renewal, whereby its forms of CGR-2 valuation and CGR-1 devaluation seem two sides of the same coin. From the

perspective of local space, this social dispossession of higher ground rents may be too high a price to pay for the limited positive outcomes generated by the current model of large-scale urban renewal, such as scant repopulation, minor municipal revenues, and some attraction of additional amenities into these *poblaciones*.

Some particular points observed in this case present something of a challenge to the structural principles of the rent gap theory. The latter has probably not focused enough on the social effects that the closure of the rent gap might have in highly owner-occupied, low-income areas, where dispossession of CGR-1 at its low level leads to displacement towards more disadvantaged locations in the city. From my perspective, even if no displacement has been seen in a particular renewing area of a city, perceived forms of potential dispossession of an increased CGR (for instance, severe restrictions on upgrades to social housing, with all the effects that this generates in small owners) may suffice for gentrification to exist.

Neither have rent-gap theorizers seen too much intervention by the state in the production of rent gap and its forms of accumulation. The case of Santiago shows that an enlarged PGR is made possible by lax urban guidelines, whereas tight regulations on housing upgrading can be forms of 'institutional' redlining. The latter may be a phase of devaluation and rent gap enlargement, not exerted by banks and/or finance institutions (as the rent gap theory defines), but by central and especially municipal governments that respond somewhat frenetically to the state of competition within the URSA. Valuation and devaluation carried out by the local state seek to attract the supposed benefits of urban renewal, but this contradicts the goals of other state policies aimed at adding value in the low-income spaces of the city.

On the other hand, however, better knowledge about a rent gap can also be an effective political means for local owner-occupiers to understand their potential losses of CGR and to mobilize to stop (or at least temporarily control) waves of large-scale urban renewal entering into their territories.

In fact, it is quite possible that, insofar as the new master plan proposed by PAC municipal government remains stalled, the market in large-scale urban renewal will not trickle down into this territory. However, this means that the small land-owners of PAC will remain excluded from the circuits of the city's property market. Thus, a necessary question to ask is what the alternative to this should be.

In my opinion, a deep rethinking of this state strategy of urban renewal may help to some extent. In the first place, it is necessary to understand that the peri-centre has a special demography, different levels of urban consolidation and, particularly, a more devalued ground rent than the centre and periphery. It thus deserves to be treated as a special analytical category, possibly with ad hoc urban policies. Second, for these levels of consolidation, urban renewal in the peri-centre should not be based on simply selling off residential land at market prices, but at exchange values equated to the real use value. For this to happen, the right of small-scale owner-occupiers to add value to their well-located properties and receive the benefits of its relatively central location should be recognized.

Hence, new ad hoc local building regulations should give opportunities and incentives for small-scale densification similar to those currently given to large-scale construction. Meanwhile, the FSV housing upgrade programme (or a different and improved version of this) should act more independently of potential, or even deliberate, municipal mismanagement, while central and regional MINVU should have major roles to play in the monitoring of the programme. A spread and well-focused model of mid-density urban renewal may also create more residential capacity than the current privately led, large-scale model, helping to reverse more decisively the loss of population from this inner city, to support small building enterprises, and even to open micro renting markets.

In the third place, several better localized zones for intensive large-scale renewal may be more effective than the current single, large zone within which regulation is relatively laissez-faire, because these zones would not interfere with the spaces most needed for social housing upgrading.



A reconfiguration of the state-subsidized, privately led model of urban renewal seems necessary in Chile. While the main stakeholders in the renewal of this city should no longer be the large-scale developers, the efforts of the public sector should be put into creating a more socially responsible alternative for peri-central renewal, with an emphasis on the social capitalization of the ground rent.

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## Resumé

*D'après la théorie du différentiel de loyer, qui éclaire de façon cohérente la gentrification des espaces centraux des villes, l'écart grandissant entre loyer foncier capitalisé (CGR) et loyer foncier potentiel (PGR) constitue un catalyseur de réinvestissement immobilier à grande échelle, donc de gentrification. Dans le péricentre historique et ouvrier de Santiago du Chili, il se crée non seulement un écart de prix mesurable, mais aussi un marché subventionné par l'État portant sur la rénovation de quartiers urbains à forte densité et fondé sur l'accumulation des CGR (croissants) par quelques grands promoteurs. L'article s'intéresse à une municipalité défavorisée de Santiago dont le gouvernement s'efforce d'attirer ce marché en libéralisant ses réglementations locales sur la construction (afin d'augmenter le PGR) et en produisant délibérément des résultats insuffisants dans le cadre d'un programme national d'amélioration des logements (afin de déprécier le CGR dans les espaces ciblés préalablement pour rénovation). Dans cette ville, on peut observer deux types de loyer foncier, un type inférieur capitalisé par les propriétaires occupants actuels (CGR-1) et un type supérieur capitalisé par les agents opérant sur le marché de la rénovation (CGR-2). La situation est considérée comme une forme de dépossession sociale du loyer foncier, et comme une condition nécessaire à la gentrification. Pour conclure, la stratégie de rénovation urbaine que l'État applique à Santiago doit être recentrée sur des formes plus participatives de répartition du différentiel de loyer.*