

Strategic use of land policy instruments for affordable housing – Coping with social challenges under scarce land conditions in Swiss cities

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ABSTRACT

For decades, many cities have introduced densification policy objectives to stop urban sprawl or to promote efficient use of natural resources. In the urban housing sector, however, densification projects often intensify social challenges. Due to rising rents after modernization of existing housing stocks as a consequence of densification, low-income tenants are forced to leave their apartments. Risks of social exclusion and segregation increase simultaneously.

In this article, we analyze how municipal planning authorities cope with affordable housing shortages in a context of urban densification. Specifically, we ask: *How do municipal planning authorities promote affordable housing in densifying cities?* To answer this research question, we apply a neoinstitutional analysis approach to better understand (1) the basic mechanisms of how land policy instruments impact affordability, and (2) why specific instruments are activated to defend affordable housing objectives. Through qualitative case study analysis of four Swiss urban municipalities, our results show that the mere availability of land policy instruments is not sufficient but that the strategic activation of specific instruments matters.

1. Introduction

For decades, many cities have introduced densification policy objectives to stop urban sprawl or to promote efficient use of natural resources (Daneshpour & Shakibamanesh 2011; Touati-Morel 2015). Densification is defined as a process leading to higher exploitation (number of households) within existing city boundaries (Boyko & Cooper 2011:47). The implementation of this process, however, is a contested procedure as it requires to deal with the already built environment (Gerber et al. 2018). In the urban housing sector, for example, the compact city may improve public transport use, while at the same time it is likely to mean less domestic living space and a lack of affordable housing. A rising number of tenants suffer from social eviction, contract termination and dismissal due rent increase after modernization as a direct consequence of urban densification (Burton 2003; Chiu, 2003; Bramley et al. 2009).

In Switzerland, for instance, a legally-binding densification policy objective has been introduced in the revised Federal Spatial Planning Act (SPA¹) in 2013. Swiss municipalities are obliged to densify through inward settlement development to protect agricultural land and to

preserve natural habitats (Art. 1 SPA). However, since the majority of Swiss cities lacks of free inner-city plots, the process is primarily being implemented through redevelopment of existing housing stocks e.g. in the form of total replacement construction, renovation, or compaction of existing buildings (Nebel et al. 2017). Simultaneously, affordable housing shortages for low- and middle-income households have intensified in almost every Swiss city in recent years (FOH 2016a). The current housing situation in urban areas is characterized by an overheated housing market with vacancy rates below 1% and rising rents (Balmer & Gerber 2017). Consequently, municipal authorities are increasingly confronted to deal with tenants suffering from social exclusion due to rising rents after modernization and densification. Particularly, low-income old-aged, migrant and family households are affected from social displacement as newly renovated buildings are only affordable for middle and high-income groups and non-profit housing suppliers have long waiting lists (FOH 2016a). The current situation is even more worrying considering that Switzerland is regarded as a nation of tenants with having the lowest homeownership rate in Europe (Lawson 2009). Housing provision traditionally lies in the responsibility of the profit-oriented private rental sector (Bourassa et al. 2010).

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¹ Federal Act on Spatial Planning (SPA) of 22 June 1979 (CC 700).

In Swiss cities (where over 70% of the population lives), 63% of households live in apartments of private investors and are strongly dependent on the housing stock owners' decisions (FOH 2017).

In this article, we analyze how municipal planning administrations cope with affordable housing shortages in a context of urban densification. Specifically, we explain the strategies implemented by municipal authorities in order to deal with affordable housing provision when confronted with scarcity of land. We ask: *How do municipal planning authorities promote affordable housing in densifying cities?* To answer this research question, we apply a neoinstitutionalist analysis approach and proceed in two steps to better understand (1) the basic mechanisms of how policy instruments impact affordability, and (2) why local planners activate specific instruments to defend housing affordability objectives. These questions require the use of qualitative case study methodology (Yin 2018) employed in four Swiss municipalities which are all confronted with rising affordable housing scarcity and densification pressure. This article brings together examples of local practices to raise awareness how planners can strategically activate different policy instruments to promote affordable housing in urban areas.

2. Affordable housing provision at the interface between public policy intervention and property rights

Housing affordability refers to a situation in which households are able to pay a certain percentage of their income for housing costs so that they will have enough left for other necessities of life (Stone 2006). In Switzerland, for instance, it is generally assumed that a quarter (25%) of the monthly net household income can be spent on the monthly gross rent without negatively impacting other dimensions of life (FOH 2014c)².

To understand the diverse mechanisms that influence the status of housing affordability, we apply a neoinstitutionalist analysis approach (Mandelbaum 1985; Williamson 2000; Ostrom 2007; Gerber et al. 2009). In general, this approach focuses on the relationship between institutions and actors' decisions observing that human actions take place within a tight web of formal rules which structure individuals' expectations about what others will do (Hall & Taylor 1996:956). Institutions are thereby understood as shared social values stipulated in formal laws and ordinances which guide social interaction and practices (Dembski & Salet 2010:612). Following the neoinstitutional perspective, housing affordability is hence regarded as the result of human actions. The key attributes of individuals' behavior - both the institutional setting and the actors' self-interestedness and strategies of action - need to be addressed for understanding the (un)sustainable use of urban housing stocks (Williamson 2000:600).

2.1. Strategic activation of land policy instruments for affordable housing provision

Housing is a resource that is economically significant. Traded on the free market, housing is a commodity with enormous economic potential which is why it is often treated as a highly valued collateral. Especially in cities, where demand for housing is high and the potential for capital accumulation is lucrative, the competition between actors interested in using urban land for housing is rising and rents constantly increase (Aalbers 2017:543-544). In addition, in many cities, the prohibition to build outside municipal boundaries and the obligation to densify within the built environment has even reinforced this competition. Due to

² In comparison to other European countries (e.g. Germany) where normally a 30% share is regarded reasonable, in Switzerland, monthly fix costs such as taxes (~10% of the monthly loan) and health insurances (~250 CHF per month) are not already deducted from the monthly income. Therefore, a quarter is considered to be appropriate.

scarce land resources, the prices for land and the housing stocks which are built on intensively increase (Burton 2000:1976).

Consequently, the provision of affordable housing in dense city areas is to be regarded as a land policy issue since owners can ask for higher land prices due to increased proximity within the financial center, centrality to transport nodes, or accessibility to services which directly influences the rental cost level (Theurillat et al. 2014:1426). In this context, "land policy" encompasses all the political-legal measures implemented by the municipality to deal with the issue of land use regulation (Hartmann & Spit 2015). More precisely, land policy "is defined as all those state decisions and measures that have an influence on the way land is used, distributed and valued to implement the politically defined spatial development goal" (Hengstermann & Gerber 2015:246). This active definition of land policy (see for discussion Healey & Barrett 1985; Needham & Verhage 1998; Knoepfel et al. 2012; van der Krabben & Jacobs, 2013; Hartmann & Spit, 2015) differs from a passive land policy understanding (e.g. Davy 2012:117) that focuses not only whether land is changed (passive) but also in regard to achieve a specific spatial development goal (e.g. affordable housing provision) (active) (Hengstermann 2018).

In practice, such state interventions appear in the form of public and private law instruments that operate according to a different logic and rely on different forms of legitimacy (Hood & Margetts 2007; Needham et al. 2018). In general, policy instruments are defined as intervention ways or measures that are needed to achieve a certain public policy goal (Knoepfel et al. 2007:156-157). To provide affordable housing, for instance, different intervention ways for municipalities exist including the increase of social housing (public ownership) or a shift towards project-based subsidies that may stimulate the affordability of rents (Kadi & Ronald 2014:271).

- *Public law instruments* derive from public policy including regulatory statutes, penal laws and other laws of public order. They aim to solve a political problem that was defined as such by the voting majority e.g. urban sprawl. Public law instruments such as subsidies or zoning measures are regularly revised, not only because the problem they are targeting constantly evolves, but also because changing political majorities propose alternative solutions to the problem (Knoepfel et al. 2012).
- *Private law instruments* derive from private law including property law, the law of contracts, torts and obligations. Their aim is to defend private interests against the (potentially absolutist) power of the state (Locke 1689). Property rights are grounded in the Civil Code (or similar in common law contexts) and are extremely stable over time because their definition hardly changes (Bromley 1992; Savini et al. 2015). Without heavy state intervention such as expropriation, therefore, new planning regulations only get implemented when titleholders agree to undertake new development, sell their land or transfer their development rights (Gerber et al. 2017).

Under scarce land conditions, city authorities frequently fail to cope with complex property-right arrangements as most instruments were crafted to deal with use situations on unbuilt greenfield. Densification, in contrast, implies to deal with the already built environment and with complex property situations (e.g. small-scale ownership, veto-rights controlled by power actors). Therefore, in a densifying city, planning for affordable housing requires a keen understanding of the instruments available to govern the close interactions between land-use planning (public policy) and property rights (Dawkins & Nelson 2002; Blomquist 2012). Planners have to understand that the selection and combination of policy instruments is never neutral. Rather the choice corresponds to a specific interpretation of the role played by the state and/or its private partners (Salamon 2000). An active land policy strategy, in other words, requires planning administrations, which are capable to develop intervention ways to reinforce their position in front of powerful

landowners or economic interests to address complex and rivalrous land use situations (Alterman 1990). These strategies are deliberate and goal-oriented applications of certain instruments or the combination thereof (Gerber et al. 2018). For example, as densification implies a form of planning that goes beyond zoning in order to deal with complex property rights situations, strategic competencies of municipal authorities include e.g. amicable purchase, building leases, public-private-contracts, and so on. Moreover, because property titles give additional power to their holders to shape housing development, public actors too can use them to reinforce their position (Gerber et al. 2017:1687).

3. Study design

To investigate a contemporary phenomenon in-depth - the provision of affordable housing in densifying urban areas - and as results of human action, the empirical material of this study is conducted through qualitative case study methodology (Yin 2018).

3.1. Case selection & methods

The study is conducted in two steps: in a *first step*, we investigate the wide range of available policy instruments to promote affordable housing in cities under densification pressure (sub-question 1). Following this objective, Switzerland makes an interesting case study to analyze the relationship between land-use regulation, densification, and housing affordability as the challenge of coordinating the three has become predominant in the country in recent years (Gennaio et al. 2009; Rérat 2012; FOH, 2016b, 2016a). Especially since the approved revision of the Federal Planning Act in 2013 which enforces the 26 cantons and over 2000 municipalities to promote “inward settlement development, while ensuring an appropriate quality of housing” (Art. 1, para. 2, lit. a^{bis} SPA). Simultaneously, population growth coupled with yield-oriented investments attracted by the state’s economic stability and wealth reinforced the attractiveness of Swiss real estate markets. Triggered by low-interest rates, urban housing has become the main target of capital investment, especially for pension funds. As a result of increased commodification, modernization, and densification of housing stocks, the provision of affordable housing has increasingly become difficult for Swiss planning authorities in recent years (Balmer & Gerber 2017).

The country is organized on three executive levels - municipalities, cantons, and the confederation - and is characterized by a form of “cooperative federalism”. Local zoning plans are prepared by municipal authorities but must comply with cantonal and federal plans (Linder 1994). In any case, local zoning regulation is binding to private property owners. Investors and developers can be asked to prepare and to fund specific plans, however, the final validation of the local plan and the provision of building permits always relies in the responsibility of the municipal planning authority (Gerber et al. 2017:1690). Methodologically, in this step, we performed a broad screening and analysis of policy documents at the national and local level. We analyzed articles published within the last decade, including government reports, vote results, legal documents, parliamentary debates, newspaper articles and ‘grey’ literature which documented the use and range of available policy instruments for affordable housing provision. Our goal was to detect the wide range of policy instruments available for Swiss municipalities.

In a *second step*, we analyzed the municipal authorities’ strategies when activating specific policy instruments for affordable housing provision (sub-question 2). Therefore, we selected two cases in urban core areas – the cities of Zurich and Basel – and two cases in suburban areas – the cities of Köniz and Kloten – to gain a broad understanding of the strategies applied in different urban contexts. Whereas the cities of Zurich and Basel face a period of severe urban housing shortage, in the cities of Köniz and Kloten the pressure on affordable housing provision is not as profound but is constantly rising. In Zurich, for instance, rental

Table 1
: Housing market characteristics in the cities of Zurich, Basel, Köniz and Kloten (City of Kloten, 2020a; City of Köniz, 2020b; FOSD, 2016:25; Glattal Region, 2020; Nebel et al. 2017:16; Statistical Offices Zurich & Basel City 2019, 2020).

	Urban context	Population in absolute numbers (2019)	Estimated population growth & demographic change	Housing vacancy rate (2019)	Share of buildable lots within city boundaries (2017)	Housing property shares			
						Owner-occupied condominium) (%)	Private rental housing (%)	Social rental housing (incl. Public housing) (%)	
City of Zurich	Core center	434'008 (around 1 Mio. including suburban areas)	+ 21% by 2030, significant increase of 10-19 and 40-49 years old	0.14%	4% (for housing purposes only)	47.2%	28%	24.9%	
City of Basel	Core center	178'445 (around 800'000 including suburban areas)	+ 10% by 2040, significant increase of children (10-19 years) and 40-49 years old	0.7%	4% (only housing)	49.7%	36.1%	13.5%	
City of Köniz	Suburban	42'694	+ 6% by 2030	0.5%	24% (only housing)	15%	75%	10%	
City of Kloten	Suburban	20'079	+ 50% by 2030	0.1%	24% (only housing)	20%	71.3%	8.7%	

costs on the private rental market have increased by +75% since 2000 (Balmer & Gerber 2017:8). On average, a 90 m² apartment offered on the rental market costs more than 2000 Swiss francs net-rent per month which is only affordable for middle and high income households (Schmid 2020). Hence, moving to cheaper suburban areas has remained the only option for many vulnerable and lower income groups in Zurich.

The four cases were selected as they all show similar socio-economic characteristics (population growth, vacancy rate, land scarcity, densification pressure, affordable housing shortage) and, at the time of investigation, had to deal with on-going densification projects in the urban housing sector (Table 1). Thereby, we were able to directly confront the actors involved with the decisions taken in relation to affordable housing provision and densification. To achieve this goal, we conducted *ten* semi-structured interviews with eight experts from the public sector (local planning, housing and social welfare departments) and two local tenants associations. In addition, we analyzed for each case 20-30 policy and project documents to gain a detailed understanding of the applied municipal authorities' interests and strategies.

4. Strategic use of land policy instruments for affordable housing

As mentioned in section 2, municipal authorities may activate different policy instruments to alter land parcels in size and shape in order to promote affordable housing. In doing so, they aim to change the use conditions for specific groups. In the following section, we present *four* strategies which Swiss municipal authorities follow to promote affordable housing (Fig. 1). These intervention ways derive from the neoinstitutional analysis approach (Gerber et al. 2018) and structure both the empirical analysis and the discussion section of this paper. The four strategies were selected along their characteristics (either deriving from public or private law), and their potential to defend municipal interests in front of powerful landowners. In particular, we distinguish between, first, instruments that regulate land uses by using public policy with no direct impact on the use rights of land such as economic incentives for landowners (see (1) *supply-subsidies*). Second, instruments using public policy leading to a regulation of use rights on formal ownership ((2) *zoning*). Third, instruments leading to a legal redefinition of property rights in the Civil Code ((3) *contracts*). And forth, instruments that redistribute property rights such as expropriation or targeted purchase of land ((4) *property rights*).

For each policy instrument, we briefly explain how they work in the Swiss context (section 4.1). Then, based on our qualitative case study analysis, we investigate *how* the policy instruments are used for affordable housing provision in the four cities (section 4.2). Third, we explain *why* local planners activate specific policy instruments to promote affordable housing in order to understand the strategy behind the policy measures applied (section 4.3). As the process is ongoing, the list is neither to be evaluated as complete nor exhaustive.

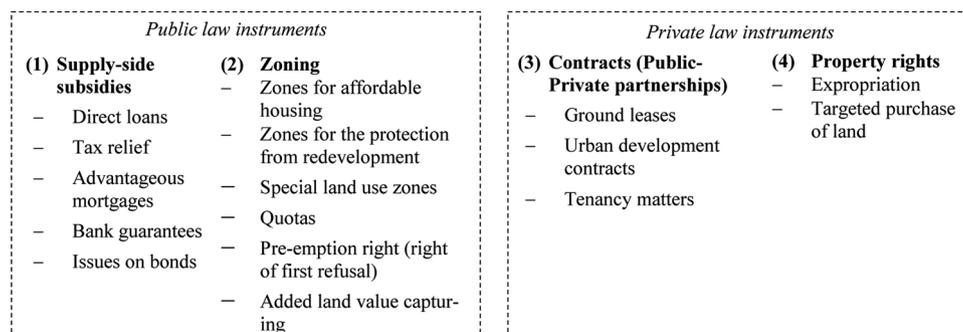


Fig. 1. Municipal land policy instruments for affordable housing in Swiss municipalities (analysis based on i.a. FOE, 2015, 2018b; FOF et al., 2009; FOH, 2012, 2014c, 2014a, 2014b, 2016b, 2016a, 2017, 2018a, 2019; Swiss Federal Council, 2014, 2016, 2017; FOE & FOH, 2015; FOSI & FOH, 2015; FOSD, 2016).

4.1. The basic mechanisms how policy instruments work in the Swiss context

4.1.1. Supply-side subsidies

In general, the granting of supply-side subsidies does not target the individual tenants, rather individual buildings. In the housing sector, Swiss municipalities provide supply-side subsidies in the format of economic incentives such as direct loans, tax relief, bank guarantees or advantageous mortgages to private third parties e.g. to non-profit associations or private individuals.

4.1.1.1. *For non-profit housing associations.* Private homeowners have to belong to a federal umbrella organization to benefit from public supply-side subsidies for housing purposes. The organization controls that its members (mainly non-profit cooperatives and foundations) provide affordable housing according to the cost rent principle and based on non-profit objectives only (Balmer & Gerber 2017).

4.1.1.2. *For private individuals.* Moreover, each Swiss city (based on the Federal Energy Act) does not only provide supply-side subsidies to the non-profit housing sector. They are also obliged to grant subsidies in the form of direct grants, financial incentives, tax relief, and free consulting to private individuals (including institutional investors) to improve energy efficiency standards e.g. for insulation, windows or heating. So far, the granting of energy subsidies for private individuals has only been determined by technical criteria and has not been attached to the fulfilling of social objectives. However, in recent years, the federal government has started to investigate whether such granting of subsidies could be coupled to social tasks too e.g. to the requirement to provide affordable housing if one aims to benefit of subsidies (FOH, 2016a).

4.1.2. Zoning

In Swiss municipalities, zoning is a relatively new land policy instrument for the provision of affordable housing. However, zoning measures have gained in strategic relevance to steer affordable housing development in recent years since urban land has become scarce and increased flexibility is needed (FOH, 2012). The policy instrument allows municipal authorities to directly intervene into private development plans because zoning regulations are binding to landowners.

4.1.2.1. *Zones for affordable housing.* In these zones, the municipality can oblige private landowners to provide a minimum share of affordable housing (e.g. 50%). Thereby, the amount of affordable housing can be raised effectively since all private landowners are legally obliged to follow this objective in these zones.

4.1.2.2. *Zones for the protection from redevelopment.* Landowners only receive a building permit to (re)develop, renovate, modernize or replace existing housing stocks in these zones if tenants will have the

opportunity to stay in their apartments afterwards. For example, property owners must approve that the rents will not exceed a certain level up to three years after the renovation task is finished. The primary political objective behind this measure is to keep the rents low when demand is high and to prevent luxury renovations.

4.1.2.3. Special land use zones. The introduction of *special land use zones* is designated to areas of increased public interest in which municipal planning authorities can encourage spatial development outside the regular zoning plan. These zones are legally-binding for public authorities and landowners but the private parcel's development terms and conditions are still negotiable for both sides e.g. regarding use density requirements, energy efficiency standards, urban design or housing affordability objectives. So far, in many Swiss cities the instrument has primarily been used for unbuilt industrial zones (e.g. for the transformation of former train station areas) as well as for greenery and infrastructure projects (e.g. lake shores, hospital areas, education facilities). In the housing sector, however, the instrument has gained new strategic relevance too since local planners are obliged to increase density within municipal boundaries and increased flexibility is needed (Knoepfel et al. 2012:423). Particularly, through the use of this instrument, city governments try to couple density goals with housing affordability objectives. For example, in these zones, the municipality can oblige the private investor to provide at least 40% affordable apartments, and in turn, landowners can benefit of a density increase of +10% outside the regular zoning plan.

4.1.2.4. Quotas. The introduction of *quotas for affordable housing* is a quantitative zoning mechanism which assures municipalities that the ratio between low-cost housing supply and demand does not exceed a certain level. Through the use of quotas, planning authorities can steer affordable housing provision effectively as the output is regularly controlled and monitored by quantitative guidelines. In particular, quotas help planners to have a clear vision and goal what type and size of housing units needs to be built within a specific timeframe e.g. by 2050. The instrument also helps city authorities to legitimize the use and introduction of additional policy instruments (e.g. the purchase of private land) which also support the increase of affordable housing in the long-term.

4.1.2.5. Added land value capturing. The policy instrument of *added land value capturing* is a zoning mechanism with which municipal governments reap some of the increment in land value attributable to planning decisions (Alterman 2012). According to the revised Federal SPA, Swiss municipalities are obliged to capture a minimal taxation rate of 20% of the added land value for new-built housing on unbuilt land. The tax is due when the land is developed or sold (Art. 5, par. 1 SPA). Optionally, municipalities can also capture added land values that occur through densification measures on already built land (up-zoning) (Viallon 2018). The funds collected by the instrument grant municipal authorities the possibility to distribute, remove and relocate private development rights according to societal needs. For example, municipalities can capture a minimum share (e.g. 40%) of added land values that evoke through planning measures for affordable housing provision.

4.1.2.6. Pre-emption rights. A public *pre-emption right* (stipulated in the Local Zoning Act) assures the municipality the right of first refusal when private property is sold. Planners apply the instrument for the construction of, among other purposes, social housing units. In planning practice, the municipality makes use of a pre-emption-right if a private parcel has strategic relevance for the city's urban development as a whole e.g. for the construction of schools or to intervene into socially segregated areas. It also provides municipalities the capacity to prevent land speculation which could hamper affordable housing provision in general (Nahrath 2018).

4.1.3. Contracts

According to Swiss private law (see Swiss Civil Code³ and Federal Obligations Code⁴), a contract is defined as a legal agreement between two or more parties, enforceable by law, to perform a specified act. In case one of the two is a public actor, the contract is to be considered as "public-private-partnership" (Nicol & Knoepfel 2008:172).

4.1.3.1. Long-term ground leases. *Ground leases* grant the landowner the right to retain legal ownership while transferring the right to use his/her land to a private third party (Gerber 2016; Gerber, 2018). In Switzerland, ground leases are granted for up to 100 years in exchange for annual rent payment. At the end of the lease period, all improvements made to the land by the owner of the building revert back to the landowner, according to the terms of the initial contract (Gerber et al. 2017:1690). With regard to affordable housing provision, Swiss cities often use the instrument for collaboration with non-profit housing associations (Balmer & Gerber 2017). In practice, the municipality remains the landowner while the ownership of the building is transferred to a private third party such as a non-profit housing cooperative. The municipality as landowner benefits from a stable source of income over time through lease revenue but does not bear the financial risks to manage the use of the building. The municipality remains in charge to determine special use requirements on their plots e.g. related to social mix rules, income levels or housing affordability objectives.

4.1.3.2. Urban development contracts. In *urban development contracts*, another form of 'planning by contract', a private landowner aims to improve the use requirements that are set on his/her private parcel in the regular zoning plan through a renegotiation of the terms and conditions with the municipal planning authority. Planners may agree to such (re)negotiations with the private investor, for instance, to promote affordable housing. Under scarce land conditions, in particular, the municipality prefers to influence the development terms on private land on soft scale rather than not having an impact on private land at all. Through development contracts, planners can change the 'rule of the game' quickly, flexibly and for specific private locations only (Feldges, 2019).

4.1.3.3. Tenancy matters. Ultimately, the support of affordable housing can also be promoted via tenancy law. Swiss *tenants' rights* are protected by the articles for tenancy matters in the Federal Obligations Code (Art. 253-274 OC) as fifth part of the Swiss Civil Code. In international comparison, tenants in Switzerland are considered to be weakly protected by law in relation to neighboring states (e.g. Austria, Germany) (GFOBRP, 2016). For instance, landowners are allowed to terminate an open-ended rent contract within three months without any specific reason. So regardless of the tenants' strength of social integration, age, or years of residency in the neighbourhood. Residents do also not need to be informed about upcoming densification tasks *before* receiving the contract termination which leads to social eviction at short-notice. Tenants may counteract in court, however, in most cases they do not use this option as they neither have the financial means nor the expert knowledge to do so. Therefore, some Swiss cantons (e.g. Zurich, Fribourg, Basel-City, Geneva) have revised its Cantonal Tenancy Act to better protect tenants from rent increase and dismissal (FOH, 2018a).

4.1.4. Property rights

Expropriation: In Switzerland, the "right to own "property is protected as a fundamental right by the Swiss Constitution (Art. 22ter

³ Swiss Civil Code of 10 December 1907 (CC 210).

⁴ Federal Act on the Amendment of the Swiss Civil Code (Obligations Code; OC) of 30 March 1911 (CC 220).

CSC). As such it can only be restricted if (1) a legal basis and an overwhelming public interest exist; (2) the measure is proportional; and (3) a full compensation is paid (Art. 5, Art. 36 para. 1-3 & Art. 26 para. CSC). Especially in the housing sector, Swiss courts interpret the weight of public interest narrowly so that property restrictions are limited and expropriations are rare in international comparison (Alterman 2010). As a consequence of this legal situation, the political legitimacy to make use of expropriation for affordable housing provision is low as expropriation is politically contested, long and expensive.

4.1.4.1. Targeted purchase of land. The targeted purchase of land guarantees the municipality the full right of disposal and the power to grant the land use rights on their plots. Through public ownership, the city as landowner is in charge to develop housing according to public preferences e.g. to fulfill social objectives such as the provision of affordable housing, the protection of tenants' rights or to ensure

residential stability of old-aged. However, in daily planning practice, the purchase of urban land is expensive and political majorities for the support of such acquisition strategy is not always given. Therefore, many Swiss municipalities have started to intervene into private developers rights in other ways, especially through zoning measures.

4.2. The use of the policy instruments for affordable housing provision in each city

In the following section, we explain how municipal planning authorities in the four cases investigated used which land policy instruments for affordable housing provision. Thereby, we identify differences but also similarities in Swiss local affordable housing practice. The data of the table derive from intensive literature and policy documents review and was supplemented by qualitative interview data.

	Case of Zurich	Case of Basel	Case of Köniz	Case of Kloten
Supply-side subsidies For non-profit housing associations	Since 1907, the city of Zurich provides subsidies to non-profit coops, housing associations, and foundations directly or via municipal foundations (e.g. «Stiftung PWG», «Stiftung Einfach Wohnen») in the form of advantageous mortgages, direct financial grants, loans, and issues on bonds. The provision of subsidies is connected to strict requirements related to the fulfilling of social and ecologic tasks e.g. income guidelines, social-mix, and occupancy rate rules, early communication with tenants as well as obligations related to urban design, green, cultural, and open spaces, or efficient use of energy.	Since 1900, Basel-city provides subsidies to non-profit housing associations and cooperatives in the form of state guarantees, issues on bonds, advantageous mortgages, direct loans, grants, and tax relief. Same as Zurich, Basel provides subsidies to non-profit housing cooperatives connected to social objectives. For example, housing cooperatives must provide a certain share of the housing stock to the lowest income segments or for social welfare recipients only.	In March 2017, the voting majority in Köniz agreed to expand supply-side subsidies for non-profit cooperatives in the form of advantageous mortgages, direct grants and loans so that non-profit coops can afford e.g. ground leases on public land or the purchase of private land. The provision of subsidies is also connected to social requirements such as income guidelines or social mix rules.	The city of Kloten provides subsidies to non-profit housing cooperatives in the form of advantageous mortgages, direct loans and grants so that non-profit coops can afford e.g. ground leases on public land or the purchase of private land. Same as in the other three municipalities, the provision of subsidies is connected to the condition that these non-profit associations follow the cost-rent principle and social objectives such as social mix and occupancy rate rules.
For private individuals	The Canton of Zurich (to which the cities of Zurich and Kloten belong to), initiated funding programs for private individuals such as "starte" as well as advantageous mortgages for private renovations, and targeted tax relief for private individuals to promote modernization of private housing stocks but without obliging homeowners to provide affordable housing.	The City of Basel provides energy subsidies to private homeowners in the form of direct grants, tax relief and free consulting but without obliging private homeowners to fulfil social tasks (e.g. affordable housing).	The City of Köniz provides energy subsidies to private individuals in the form of direct grants, tax relief and free consulting but without obliging private homeowners to promote affordable housing.	See City of Zurich
Zoning Special land use zones	So far, Zurich mainly has used the instrument for unbuilt industrial zones e.g. Neugasse, Zürich-West, Manegg In Neugasse, for example, the city has obliged the investor to provide min. 30% of the newly built apartments created through rezoning measures for affordable housing provision. The dwellings must align with the cost-rent principle and are reserved for social housing associations.	Basel-city primarily used this instrument for unbuilt industrial zones e.g. Dreispitz, Klybeck, Volta, Erlenmatt. In these zones, the city obliges the investor to provide e.g. up to 30% of the total housing stock created through rezoning measures for affordable housing.	According to the revised Local Zoning Act, the city uses the instrument for areas with more than 4000 m ² floor area only. Here, the municipality obliges the investor to provide min. 20-40% of the newly built apartments created through the approved density increase for affordable housing provision. In practice, however, Köniz only has little areas that are big enough to suit this condition.	In Kloten, the city does not use 'special land use plans' for affordable housing provision. Instead, the instrument is used to allow private investors to increase density outside the regular zoning plan. In any case, 'special land use plans' are generally coupled with the fulfilling of urban design and energy efficiency standards.
Quotas	In 2011, the city of Zurich introduced a fix min. quota of 33.3% of non-profit housing property in the Local Constitution. Following the revised legislation, the city must approve that by 2050 a fix minimum share of 33.3% of the total housing stock will be in social housing property (Art. 2, par. 4).	Basel-city has not yet introduced a fix min. quota of affordable housing property. However, based on a revision of the Local Constitution on June 10 th 2018, the city government aims to introduce such a quota of 25% non-profit housing property by 2050 in the Local Housing Act.	In the Canton of Bern, municipalities are obliged to fulfil densification objectives according to quantitative guidelines (quotas). For example, Bernese municipalities such as Köniz can introduce a fix minimum share of housing space consumption per person for specific locations e.g. for selected densification areas. Optionally, they are also allowed to couple density requirements with housing affordability objectives. However, in the city of Köniz none of these quantitative options are used for affordable housing provision.	The city of Kloten, so far, has not used a quota for affordable housing provision. However, in spring 2020, the voting majority will vote for a local referendum which aims to introduce a min. quota of 25% non-profit housing property by 2040. At the time of investigation, the voting has not yet taken place.

Added land value capturing	The Canton of Zurich (to which the cities of Zurich and Kloten belong to) has agreed to oblige municipalities to capture a minimum share of 40% of added land values that evoke through densification/planning measures on already built land for, among other purposes, affordable housing provision in May 2019 (see Art. 49b Cantonal Building and Planning Act). The revised legislation will come into force in January 2021. However, it is not yet clear how exactly each municipality will apply the instrument at the local level.	The city of Basel has introduced a tax on added land value created through zoning measures in 1977 already. It applies a uniform of 50% tax rate on the difference between old and new land market values, both to new building zones and to up-zoning changes. So far, however, the funds collected are primarily used for greenery not for affordable housing purposes.	Since March 2020, Bernese municipalities are obliged to capture min. 20% to max. 50% of added land values created through densification and zoning measures on unbuilt land for public purposes of different kind (e.g. for affordable housing). Optionally, municipalities can capture added land values that occur through densification measures on already built land (up-zoning). In Köniz, so far, this instrument has not been used for affordable housing provision however.	See city of Zurich
Pre-emption rights	In the Canton of Zurich - based on the Cantonal Building and Planning Act (§118) - municipalities are allowed to make use of public pre-emption rights via local zoning. However, so far, municipalities such as Zurich or Kloten have not used this instrument for affordable housing provision as its implementation is politically contested.	Basel-city does not make use of public pre-emption rights, neither on the cantonal nor municipal level. However, based on the approved local referendum on June 10 th 2018, the city government now plans to initiate the introduction of such a right to increase the share of affordable housing in the long run.	-	See city of Zurich
Contracts Long-term ground leases	The city of Zurich provides long-term ground leases on public land to non-profit housing associations and municipal foundations. At the end of 2018, the municipality has provided 220 lease contracts to non-profit associations in total. The provision of ground leases is connected to the fulfilling of social tasks e.g. housing affordability, social mixing, and occupancy rate rules.	The city of Basel provides long-term ground leases on public land to non-profit associations for residential, commercial, and creative use. With 680 lease contracts in 2019 in total, the city of Basel is one of the strongest ground lease providers in Switzerland. In the housing sector, the provision of ground leases is connected to the fulfilling of social tasks e.g. affordability- and social mix rules.	The city of Köniz provides long-term ground leases on public land to non-profit housing associations. The provision of ground leases is connected to the fulfilling of social tasks e.g. affordability-, tenure security and social mix rules.	The city of Kloten provides ground leases on public land to non-profit housing associations. The provision of ground leases is connected to the fulfilling of social tasks e.g. housing affordability and social mix rules.
Urban development contracts	So far, the city of Zurich has not made use of urban development contracts for affordable housing provision. In future terms, however, it is expected that the instrument will gain in relevance as planners will need to negotiate the terms and conditions of private development within municipal boundaries more intensively.	In Basel-city, the local planning administration uses the instrument for specific areas e.g. for the development of the Novartis campus. So far, however, it has not been used for affordable housing provision only, but mostly, to improve green and open spaces.	-	-
Tenancy matters	Since November 1 st 2013, based on a revision of the Cantonal Tenancy Act (§229b), tenants living in municipalities of the Canton of Zurich (e.g. Zurich city, Kloten) can force the property owner to disclose the former rent if they enter a new rent contract. In case the new rent does not align with the current interest rate, tenants are allowed to claim the rent increase in the cantonal tenancy court. In practise, however, tenants do often not use this option as they do not have the knowledge or financial means to do so.	Since November 1 st 2018, same as in Zurich, tenants living in the Canton of Basel-city are allowed to force homeowners to disclose the former rent if they enter a new rent contract. In case the new rent does not align with the current interest rate, tenants are allowed to claim the rent increase in the cantonal tenancy court. In addition, in June 2018, Basel-City has revised its Local Constitution to better protect tenants from redevelopment and dismissal. Following the revised legislation, the municipality is obliged to ensure that people who live and are registered in Basel city can rent an apartment that suits their income adequately. The rental costs are not allowed to exceed the respective household income or financial capacity. Moreover, private homeowners only receive a building permit for renovations, replacements, and demolitions if rents after modernization do not exceed a certain level. The revised tenancy legislation, however, is not yet in force.	Besides the Swiss federal tenancy obligations, the municipality of Köniz has not introduced additional tenancy matters to better protect tenants from rent increase and dismissal.	See City of Zurich
Property rights Purchase of land	The city of Zurich actively purchases private land for public purposes (e.g. for the construction of low-cost housing, schools, health facilities). A current example is the purchase of the 'Hornbach' settlement next to the lake of Zurich where 125 new social housing units have been built on former private land.	The city of Basel purchases private land for public purposes e.g. for housing, schools, or health care. Since 2007, the net share of public property has constantly grown although not with an explicit focus on affordable housing provision.	Since many decades, the municipality of Köniz has been active in purchasing private property for the provision of affordable housing. Strategic acquisitions were made, for instance, in case of the 'Hertenbrünnen', 'Am Hof', or 'Dreisplitz' settlements.	

4.3. Strategic activation of specific policy instruments to defend housing affordability objectives in each city

In the following section, we explain *why* municipal planning authorities in the four cities activate specific policy instruments to defend affordable housing objectives.

4.3.1. The Case of Zurich

To reach the Constitutional mandate of 33.3% social housing property by 2050, Zurich's municipal planning authority makes not only use of public law instruments (e.g. supply-side subsidies, zoning). But the city council also commits to find other ways to increase the share of affordable housing effectively, particularly, by activating private law instruments too (e.g. land acquisition, long-term ground leases, changes in tenancy matters). Overall, the quota introduced in the Local Constitution helps the city government to legitimize the activation of additional policy measures such as the purchase of private land even though such acquisition strategy is expensive and politically contested in the local legislative parliament.

"The city of Zurich is committed to promote affordable housing in all its neighborhoods through zoning measures, supply-side subsidies for non-profit cooperatives, and the purchase of land for public housing to reach the constitutional mandate of 33.3% non-profit housing property by 2050" (Zurich City Council in Regional Zoning Act⁵ 2019:109).

Moreover, to effectively control the quantitative output and the affordability performance of each publicly-subsidized housing association, the municipality initiated the founding of municipal foundations (e.g. "Stiftung Einfach Wohnen" in 2014). Thereby, the municipality seeks to raise awareness for social interests such as the introduction of social-mix, income and occupancy rate rules (Interviewee 1, City of Zurich, Urban Development Department, Expert in housing issues, July 31st 2019). The municipal authority has also intensified the use of 'special land use zones' in recent years to provoke "room for negotiation" within building zones. In particular, to force private investors to promote social objectives. For instance, in relation to construction quality, urban design, and affordable housing goals if investors aim to benefit of a density increase outside the regular zoning plan (Interviewee 2, City of Zurich, Head of Planning Department, October 24th 2019).

4.3.2. The Case of Basel-City

To boost business and urban growth, so far, the city of Basel has primarily activated policy instruments which do not hamper private developers' interests to invest.

"So far, we have not had the same densification pressure as Zurich. We had the possibility to redevelop many unbuilt industrial zones. In fact, after the 80s and 90s - a period of structural decline - we have promoted population growth to promote employment increase in the city" (Interviewee 5, City of Basel, Head of Housing Department, August 20th 2019).

However, as tenants' social exclusion processes have increased in the last decade, Basel's local tenants association has initiated two local referendums to revise the Local Constitution in order to promote affordable housing (Interviewee 6, Head of Basel Tenants Association, June 26th 2019). Both initiatives aim to improve the living conditions for low-income and vulnerable groups such as old-aged and young families. Following the revised Constitution which was approved by 62% of the voting majority on June 10th 2018, the following changes must be incorporated in the Local Planning and Housing Act:

- Increase in the provision of supply-side subsidies to non-profit housing associations through the initiation of a municipal foundation for affordable housing.
- Introduction of a min. quota of 25% non-profit housing property by 2050 in the Local Constitution.
- Introduction of a more progressive land acquisition strategy for affordable housing.
- Stronger protection of tenants in case of rent increase after modernization through the introduction of rent levels which landowners must follow up to five years after the densification task is finished.

Through obtaining these measures, the city government promotes a more active land policy strategy in order to increase the share of affordable housing in the long run.

"In Basel-City, the political intention with the two constitutional initiatives is to introduce higher legal requirements for private homeowners for modernization and to hinder social exclusion of tenants that have lived in their dwellings for many years" (Interviewee 7, City of Basel, Planning Department, September 20th 2019).

In addition to the introduction of new instruments, the municipal planning authority uses available zoning measures (e.g. urban development contracts) in a more strategic way for effective affordable housing provision.

"In future terms, we will use urban development contracts more frequently to remain flexible and because we do not need a parliamentary decision to change something all the time. We do not want to dependent on the ideas of current political majorities in every project" (Interviewee 7, City of Basel, Planning Department, September 20th 2019).

4.3.3. The Case of K niz

To promote affordable housing, on February 12th 2017, K niz' voting majority agreed to revise the Local Zoning Act by adding two mandates. First, the city council must ensure that long-term ground leases on public land are provided to non-profit coops and that subsidized associations approve to the cost-rent principle. Second, on private plots larger than 4000 m² floor area, the city can oblige the investor to provide min. 20-40% of the newly built apartments created through densification measures for affordable housing. Otherwise, a density increase outside the regular zoning plan is not being approved.

"For us, socially-sustainable densification does not only mean higher quantity but also higher social quality" (Interviewee 8, City of K niz, Local Planner, August 20th 2019).

Moreover, to effectively steer local housing development, the city of K niz has strategically purchased centrally-located parcels.

"We perform an active land policy strategy. We discuss where the key parcels are to support urban development. [...] We purchase and sell land, but mainly we purchase. We do have a lot of public land reserves on which we can determine the use conditions" (Interviewee 8, City of K niz, Local Planner, August 20th 2019).

In summary, K niz' local planning authority combines public and private law instruments and is aware how to use available policy instruments effectively to promote affordable housing.

4.3.4. The Case of Kloten

Same as Basel, so far, the city of Kloten has activated policy instruments which do not forcefully intervene into private investors investment interests (e.g. supply-side subsidies) in order to stay competitive and to attract business.

"In case we have public land, we collaborate with non-profit cooperatives. However, this is not the normal case" (Interviewee 9, City of Kloten, Head of Local Planning Department, August 2019).

⁵ Regional Zoning Act (2019): Planning of Municipal Settlements, Landscape, Public Facilities and Spaces. Zurich. 1-166.

Moreover, available zoning instruments such as ‘special land use zones’ have been used without determining social restrictions for private investors to promote private investment. For example, in the ‘Waldegweg’ project, the landowner was allowed to triple the number of apartments on the same parcel without any obligation to fulfil social tasks e.g. related to affordable housing, the prevention of social exclusion or secure tenancy.

“With the initiation of special land use plans, we buy the right to participate and to have a say. [...]With this instrument, we can increase density and oblige the landowner to follow certain requirements related to architecture, urban design or energy goals” (Interviewee 9, City of Kloten, Head of Local Planning Department, August 2019).

The municipal planning authority legitimizes this strategy by the argument that the municipality seeks to attract business in order to compete with other suburban municipalities, and to become a regional center next to Zurich airport on its own.

“We support densification and modernization through raising incentives for landowners. For instance, investors are allowed to double or even triple the number of apartments on the same parcel. Thereby, we promote demolition and rent increase of affordable apartments. [...] This procedure is politically and economically promoted by the local government” (Interviewee 9, City of Kloten, Head of Local Planning Department, August 2019).

In summary, Kloten municipality follows a land policy strategy for affordable housing which is indeed one-sided: under scarce land conditions and the parallel prediction of population growth (+50% by 2030), the rights of tenants are neglected while the power and wealth of the local growth coalition between the city government, private landowners and the local building industry increases even further.

5. Discussion

The main question introduced in this article addresses the link between planning and affordable housing provision as follows: *How do municipal planning authorities promote affordable housing in densifying cities?* In chapter four, we show how institutions in general, and the strategic use of specific land policy instruments in particular, are at core for answering this research question. Not only does the article reveal *how* an instrument’s effect on affordable housing provision is indeed very different between the four municipalities (4.2). Moreover, our results show that the mere availability of land policy instruments is not sufficient for the effective provision of affordable housing but that the municipal planning authorities’ strategic activation of specific instruments matters (4.3).

(1) Policy instruments that regulate land uses using public policy with no direct impact on the use rights of land (supply-side subsidies)

Our analysis in four Swiss municipalities reveals that, so far, public policy instruments with no direct impact on the content of land use rights have proved to be the preferred support mechanism for the provision of affordable housing. This is because *supply-side subsidies* do not have a direct impact on the private property owner’s freedom or investment interests. As a consequence, public subsidies are easier to implement for municipal authorities than tools which intend to change property rights. City governments do not need to gather the political majorities to oppose private development rights which is why the whole political spectrum (from left-wing to conservative parties) is more willing to agree on. As our analysis reveals, however, these rather weak instruments are not sufficient to provide affordable housing under scarce land conditions. They need to be supplemented by more interventionist land policy instruments to provide housing for all income groups (see next paragraphs).

(2) Policy instruments using public policy leading to a regulation of use rights on formal ownership (zoning)

In the municipalities investigated (two core cities and two suburban municipalities), zoning mechanisms are acknowledged to be very effective in steering land use for affordable housing. This is because, when land gets scarce, planners are in need to actually intervene into private property owners rights to have a say *how, for the benefit of whom, and for what* existing housing stocks should be (re)developed. For example, a popular zoning mechanism which seems to succeed in promoting affordability objectives effectively is the use of *quotas*. Although quotas do not lead to a direct intervention into private ownership, they help local authorities to communicate long-term planning goals and to legitimize the reinforcement of new planning measures. However, at the municipal level, there occur differences how such additional zoning instruments are strategically implemented. In Zurich, for example, where the political majority for more proactive ways of land policy exists, zoning instruments which provoke ‘room for maneuvering’ on private property have more intensively been used in recent years. Specifically, the zoning instrument of *special land use plans* as it effectively intervenes into market forces. These zones grant municipal authorities the right to distribute, remove, and relocate private development rights according to social and affordable housing needs. In contrast, in the suburban municipality of Kloten, where political majorities follow a more liberal tradition of state intervention and the share of public ownership is low, our analysis shows that special land use zones are used in a different way. Here, ‘special land use plans’ are used to promote modernization of existing housing stocks but at the expense of its social side (e.g. affordable housing) in order to attract business and to stay competitive.

(3) Policy instruments leading to a legal redefinition of property rights (contracts)

In the four municipalities analyzed, the use of policy instruments which lead to a legal redefinition of property rights have gained in strategic relevance in recent years: when urban land becomes scarce, the inertia of private landownership might be too strong which is why increased flexibility but also planning security and predictability is needed. As a consequence, all forms of ‘planning by contract’ such as *ground leases, urban development contracts* and *changes in tenancy matters* help planners to effectively integrate their visions and housing policy objectives into private development plans. Results show that especially in cities which do not have much public land reserves such as Kloten, this flexible type of planning has gained in importance. Through the possibility to strategically negotiate the terms and conditions, public-private-partnerships help planners to increase their power in front of landowners.

(4) Policy instruments that redistribute property rights (public ownership)

Landowning municipalities such as Zurich, Basel or Köniz succeed in effectively promoting affordable housing because they benefit from the power granted by property rights. As landowners they are able to steer land use according to their socio-economic interests and visions. However, such active land policy strategy comes with a number of problems too (Gerber et al. 2017): first, a municipality needs to be able to finance such acquisition strategy, which is difficult to manage especially for smaller suburban cities such as Köniz or Kloten. For them, the challenge with high land prices and austerity imposed on public actors is even harder to handle than for core cities such as Zurich and Basel. Land deals might also be financially risky for the public sector. Therefore, the question arises whether municipalities should take these risks or better transfer them to the private sector. Second, the city government needs to convince the parliament *and* the population of the

benefits that emerge through a public authority managing assets. This mission is especially difficult for more liberal municipalities in which the political spectrum is more likely to agree on less state intervention (e.g. in Kloten). Our results show, however, that once the city government agrees on a more proactive intervention strategy for affordable housing provision such as in Köniz, the spatial development opportunities that arise through it are quickly recognized by politicians and residents. In the city of Zurich, for example, the purchase of public land has enabled municipal authorities to provide affordable housing through various ways such as the construction of public housing or the provision of long-term ground leases to non-profit coops. As a result, the share of social housing constantly increases and the financial expenses for the support of social-welfare recipients decreases simultaneously.

In summary, results show that Swiss municipalities do not follow a 'one-solution-fits-it-all' land policy strategy for affordable housing. Depending on the socio-political context (e.g. district characteristics, financial capacity, political majorities, or the cultural conditions related to urban regeneration goals), planners follow heterogeneous policy goals and try to promote housing affordability by implementing different policy instruments. However, we summarize that an active municipal land policy strategy for effective affordable housing provision requires both – the combination of public and private law instruments and the strategic activation of them: since private property rights are strongly protected by the Swiss Constitution and very inflexible, Swiss municipal land-use planning seem to experience difficulty in implementing democratically accepted spatial development plans on titleholders due to conflicting interests. As a consequence, the real housing challenge is not so much plan making, but rather plan implementation. Without heavy state intervention such as expropriation, new housing regulation in favor of housing affordability (e.g. new zoning) only gets implemented when titleholders agree to undertake new developments, sell their stock or the land or transfer their housing development rights. The shift towards densification in land-use planning makes this conflicting relationship between policy intervention and property rights even more difficult in the four cities investigated since densification implies to deal with the already built environment. Planning therefore takes place within a tight web of existing rights and duties engraved in complex institutional norms and regulations. Potential for redevelopment is often given, but the land is frequently not accessible due to the land rights secured by strongly protected property titles. Under these circumstances, planners often fail to deal with complex private property-right arrangements as most public intervention ways were crafted to handle simpler property-rights situations on unbuilt agricultural or industrial land. Therefore, to cope with complex property-rights situations on already built land such as intermixed parcels of different sizes, co-ownership constellations, rights to object granted to neighbors, rights of way or mosaic of easements, more than ever, planners need a keen understanding of the close interactions between public policy and property rights to effectively steer affordable housing development. Our analysis reveals that it needs all the finesse and competencies (e.g. knowledge, financial resources, networks, personnel) of municipal planning administrations to implement affordable housing objectives in dense cities, because landowners have the power to defend the status quo through veto rights.

In core cities like Zurich, for example, public officials succeed in increasing the share of affordable housing units as they rely not only on zoning but also municipal ownership, long-term ground leases and tenancy law. In smaller municipalities such as Kloten, however, expert knowledge as well as personnel and financial resources for strategic activation of these policy instruments is not as pronounced. Also, the political acceptance and majorities for more proactive forms of planning is not always given – especially in more suburban areas. Local politicians often regard offending private investors' plans as a too risky business for the municipality's financial situation. This leads to the

conclusion that even though no general local intervention strategy for affordable housing provision exists, this study has indicated *how* municipalities might coordinate and strategically activate different policy instruments to deal with scarcity of land and to satisfy affordable housing needs more effectively in the long run. Indeed, we showed that the introduction of new policy instruments is not always necessary but that the strategic activation and combination of available instruments is becoming more relevant.

6. Conclusion

While there is a growing body of literature focusing on the social impacts of densification on households (Burton 2000, 2003, Chiu, 2003, Bramley et al. 2009), and another extensive body of research looking at land policy issues for the management of natural resources (Ostrom 2007; Hartmann & Spit 2015; Gerber et al. 2018;), research on how to combine the two concepts to housing inquiries is still thin (Balmer & Gerber 2017; Nicol & Knoepfel 2008). More qualitative and quantitative research is still needed on whether or not specific policy instruments such as changes in tenancy matters or the property rights logic can effectively steer affordable housing, and why some municipal authorities decide to activate specific instruments while others do not.

In this article, we introduced a neoinstitutional analysis framework which postulates a causal relationship between (1) the affordable condition of the housing resource, (2) the institutions in force and corresponding policy instruments, and (3) the involved actors and their appropriation strategies. We analyzed the mechanisms at play between these three variables that explain why some groups or interests experience disproportionate access to the decision-making process on housing use and tend to lose while others win. An active land policy strategy which aims to promote affordable housing through the activation of both new and available instruments proved to be become particularly relevant in this matter. In particular, we showed how different land policy instruments function and are strategically activated by municipal planning authorities to provide affordable housing. Even though our results are limited to four Swiss cities, potential for generalization results from the following identified causal mechanisms which are expected to have broader significance in other urban contexts too: affordable housing provision results from the intertwined relationship between land use planning (public policy) and property rights – the two main sources of formal constraints. Planners can influence the private property owners' behavior in favor of increased housing affordability if they are able to find ways which reinforce their position in front of powerful landowners. To do so, they need to activate public and private law instruments which do not always need to limit property owners' rights but also work with property rights.

This study addresses a gap in housing study literature (Burton 2000, 2003; Chiu, 2003; Bramley et al. 2009; Kadi & Ronald 2014, Aalbers 2017) as it analyzes the cities lack of affordable housing as a land policy issue, and in relation to the formal institutions and the municipal authorities' decision-making strategies involved. Taking into account future challenges of land scarcity that currently evolve in many cities (Gennaio et al. 2009; Touati-Morel 2015), the findings of this study may help municipalities to counteract trends of rising commodification and financialization of urban housing stocks. If city authorities do not succeed in providing affordable housing in densifying cities, the preservation of urban social qualities such as social mixing, tenure security or community cohesion is in acute danger since more and more tenants are forced to leave due to rising rents after densification. This scenario is highly unsustainable. This article helps municipal planners, practitioners and policy-makers to prepare for future housing challenges: a stable 'right-to-housing' for all does not necessarily require the mere introduction of new policy instruments but the strategic activation of available instruments matters.

CRedit authorship contribution statement

Gabriela Debrunner: Conceptualization, Data curation, Data curation, Formal analysis, Methodology, Investigation, Resources, Writing - original draft, Project administration. **Thomas Hartmann:** Conceptualization, Supervision, Writing - review & editing.

References

- Aalbers, M., 2017. The variegated financialization of housing. *International Journal of Urban and Regional Research* 542–554.
- Alterman, R., 1990. *Private Supply of Public Services: Evaluation of Real State Exactions, Linkage, and Alternative Land Policies*. University Press, New York.
- Alterman, R., 2010. *Takings International: A Comparative Perspective on Land Use Regulations and Compensation Rights*. ABA Publications., Chicago.
- Alterman, R., 2012. Land-Use Regulations and Property Values: The < Windfalls Capture > Idea Revisited. *The Oxford Handbook of Urban Economics and Planning*, pp. 1–34.
- Balmer, I., Gerber, J.-D., 2017. Why are housing cooperatives successful? Insights from Swiss affordable housing policy. *Housing Studies* 33, 361–385.
- Blomquist, W., 2012. A political analysis of property rights. In: Cole, D., Ostrom, E. (Eds.), *Property in land and other resources*. Lincoln Institute of Land Policy, Cambridge, MA, pp. 369–384.
- Boyko, C.T., Cooper, R., 2011. Clarifying and re-conceptualising density. *Progress in Planning*. Elsevier Ltd 76 (1), 1–61.
- Bourassa, S., Hoehli, C., Scognamiglio, D., 2010. Housing Finance, Prices, and Tenure in Switzerland. *Journal of Real Estate Literature* 18, 262–282.
- Bramley, G., Dempsey, N., Power, S., Brown, C., Watkins, D., 2009. Social sustainability and urban form: Evidence from five British cities. *Environment and Planning A* 41, 2125–2142.
- Burton, E., 2000. The Compact City: Just or Just Compact? A Preliminary Analysis. *Urban Studies* 37 (11), 1969–2006.
- Burton, E., 2003. Housing for an Urban Renaissance. *Housing Studies* 18 (4), 537–562. <https://doi.org/10.1080/0267303032000117924>.
- Chiu, R.L.H., 2003. Social sustainability, sustainable development and housing development: the experience of Hong Kong. In: Forrest, R., Lee, J. (Eds.), *Housing and Social Change. East-West-Perspectives*. Routledge, London.
- City of Kloten, 2020a. Report on the local housing situation, municipal planning authority on behalf of the city council. Kloten. pp. 1–12.
- City of Köniz, 2020b. Statistics and socio-economic development. Köniz online < <https://www.koeniz.ch/wohnen/zuzug-umzug-wegzug/zuzug-umzug-wegzug.page/237> > (Access: July, 7, 2020).
- Daneshpour, A., Shakibamaneh, A., 2011. Compact city: does it create an obligatory context for urban sustainability?. *International Journal of Architectural Engineering & Urban Planning* 21 (2), 9–23.
- Davy, B., 2012. *Land policy: Planning and the spatial consequences of property*. Routledge, London.
- Dawkins, C.J., Nelson, A.C., 2002. Urban containment policies and housing prices : an international comparison with implications for future research. *Land Use Policy* 19, 1–12.
- Dembksi, S., Salet, W., 2010. The transformative potential of institutions: how symbolic markers can institute new social meaning in changing cities. *Environment and Planning A* 42, 611–625.
- Feldges, V., 2019. *Städtebauliche Verträge*. Lecture CUREM CAS Urban Management Zurich, Basel.
- FOE [Federal Office of Energy], 2015. Wirkung steuerlicher Anreize für energetische Gebäudesanierungen und mögliche Hemmnisse bei deren Finanzierung Zusammenfassung. Bern.
- FOE & FOH [Federal Office of Energy & Housing], 2015. *Energetische Sanierung. Auswirkungen auf Mietzinsen*. Bern.
- FOF, FOT, FOE, FOH [Federal Offices of Finance, Taxes, Energy and Housing], 2009. *Steuerliche Anreize für energetische Sanierungen von Gebäuden Studie der inter-departmentalen Arbeitsgruppe*. Bern.
- FOH [Federal Office for Housing], 2012. *Preisgünstiger Wohnraum mittels raumplanerischer Massnahmen? Wirkungsanalyse und Handlungsempfehlungen*. Bern.
- FOH [Federal Office for Housing], 2014c. *Bericht über die Ergebnisse der Vernehmlassung zur Änderung des Mietrechts im Obligationenrecht (OR)*. Bern.
- FOH [Federal Office for Housing], 2014a. *Vorkaufsrecht der Gemeinden – Bericht zuhanden des Bundesrates Zusammenfassung Ausgangslage*. Bern.
- FOH [Federal Office for Housing], 2014b. *Wohnungspolitischer Dialog Bund, Kantone und Städte Zwischenbericht der Arbeitsgruppe*. pp. Bern.
- FOH [Federal Office for Housing], 2016b. *Bericht Energetische Gebäudesanierungen im Mietwohnungsbereich*. Bern.
- FOH [Federal Office for Housing], 2016a. *Wohnungspolitischer Dialog Bund, Kantone und Städte Zwischenbericht der Arbeitsgruppe*. Bern.
- FOH [Federal Office for Housing], 2017. *Gemeinnütziges Wohnen im Fokus. Ein Vergleich zu Miete und Eigentum*. Grenchen.
- FOH [Federal Office for Housing], 2018b. *Verzeichnis Formularpflicht für den Anfangsmietzins gemäss Artikel 270 Absatz 2 OR*. Bern.
- FOH [Federal Office for Housing], 2018a. *Volksinitiative und Rahmenkredit zur Aufstockung des Fonds de Roulement Zusatzbericht der Verwaltung zuhanden der WAK-N*, Bern.
- FOH [Federal Office for Housing], 2019. *Zusammenhang zwischen Einkommens- und Energiearmut sowie die Folgen energetischer Sanierungen für vulnerable Gruppen. Eine qualitative Analyse*.
- FOSD [Federal Office for Spatial Development], 2016. *ISOS und Verdichtung. Bericht der Arbeitsgruppe*, Bern. ISOS und Verdichtung. Bericht der Arbeitsgruppe, Bern.
- FOSI & FOH [Federal Office for Social Insurances & Housing], 2015. *Wohnungsversorgung in der Schweiz - Bestandesaufnahme über Haushalte von Menschen in Armut und prekären Lebenslagen*. Bern.
- Gennaio, M.P., Hersperger, A.M., Bürgi, M., 2009. Containing urban sprawl-evaluating effectiveness of urban growth boundaries set by the Swiss Land Use Plan. *Land Use Policy* 26, 224–232.
- Gerber, J.-D., Knoepfel, P., Nahrath, S., Varone, F., 2009. Institutional Resource Regimes: Towards sustainability through the combination of property-rights theory and policy analysis. *Ecological Economics* 68, 798–809.
- Gerber, J.D., 2016. The managerial turn and municipal land-use planning in Switzerland – evidence from practice. *Planning Theory and Practice* 17 (2), 192–209. <https://doi.org/10.1080/14649357.2016.1161063>.
- Gerber, J.-D., Nahrath, S., Hartmann, T., 2017. The strategic use of time-limited property rights in land-use planning: Evidence from Switzerland. *Environment and Planning* 1684–1703.
- Gerber, J.D., 2018. A Swiss perspective on time-limited property rights: strategic use for active land policy. In: Gerber, J.D., Hartmann, T. (Eds.), and Hengstermann, A. (Hrsg.) *Instruments of Land Policy - Dealing with Scarcity of Land*. Routledge, pp. 260–264.
- Gerber, J.-D., Hartmann, T., Hengstermann, A., 2018. *Instruments of Land Policy. Dealing with Scarcity of Land*. Routledge, Abingdon.
- GFOBRP [German Federal Institute for Research on Building, Urban Affairs and Spatial Development], 2016. *Mietrecht und energetische Sanierung im europäischen Vergleich*. Bonn.
- Glattal Region (2020) *Region Glattal online* < <https://zpg.ch/portrait> > (Access: July, 7, 2020).
- Hall, P., Taylor, R., 1996. Political Science and the Three New Institutionalisms. *Political Studies* 44, 936–957.
- Hartmann, T., Spit, T., 2015. Dilemmas of involvement in land management - comparing an active (Dutch) and a passive (German) approach. *Land Use Policy* 42, 729–737.
- Healey, P., Barrett, S.M., 1985. *Land policy: towards a research agenda*. Gower, Aldershot.
- Hengstermann, A., 2018. *Von passiver Bodennutzungsplanung zu aktiver Bodenpolitik - Eine Fallstudie zur Wirksamkeit von bodenpolitischen Instrumenten anhand von Lebensmittel-Discountern*. Springer VS.
- Hengstermann, A., Gerber, J.-D., 2015. Towards active land policy - the new Swiss Spatial Planning Act. *Act. Pub* 6, 241–250.
- Hood, C., Margetts, H., 2007. *The tools of government in the digital age*. Palgrave Macmillan, London.
- Kadi, J., Ronald, R., 2014. Market-based housing reforms and 'right to the city': the variegated experiences of New York, Amsterdam and Tokyo. *International Journal of Housing Policy* 14 (3), 268–292.
- Knoepfel, P., Csikos, P., Gerber, J.D., Nahrath, S., 2012. Transformation der Rolle des Staates und der Grundeigentümer in städtischen Raumentwicklungsprozessen im Lichte der nachhaltigen Entwicklung. *Nomos Verlagsgesellschaft* 53 (3), 414–443.
- van der Krabben, E., Jacobs, H., 2013. Public land development as a strategic tool for redevelopment: reflections on the Dutch experience. *Land Use Policy* 30 (1), 774–783.
- Lawson, J., 2009. The Transformation of Social Housing Provision in Switzerland Mediated by Federalism, Direct Democracy and the Urban/Rural Divide. *European Journal of Housing Policy* 9 (1), 45–67.
- Linder, W., 1994. *Swiss Democracy: Possible Solutions to Conflict in Multicultural Societies*. St. Martin's Press, New York.
- Locke, T., 1689. *Labor theory of ownership. Second Treatise of Government. Sect. 27*, published by Waltner Euchner 1977, Frankfurt am Main.
- Mandelbaum, S.J., 1985. The Institutional Focus of Planning Theory. *Journal of Planning Education and Research* 5, 3–9.
- Nahrath, S., 2018. A Swiss perspective on pre-emption rights: impact without application. In: Gerber, J.D., Hartmann, T., Hengstermann, A. (Eds.), *Instruments of Land Policy - Dealing with Scarcity of Land*. Routledge, pp. 213–217.
- Nebel, R., Hollenstein, K., Di Carlo, G., Niedermaier, M., Scholl, B., 2017. *Schweizweite Abschätzung der Nutzungsreserven 2017*. ETH University, Zürich.
- Needham, B., Buitelaar, E., Hartmann, T., 2018. *Planning Law and Economics - The Rules We Make for Using Land*. Routledge, London.
- Needham, B., Verhage, R., 1998. The effects of land policy: Quantity as well as quality is important. *Urban Studies* 35 (1), 25–44.
- Nicol, L., Knoepfel, P., 2008. Institutional Regimes for Sustainable Collective Housing Stocks. *Swiss Political Science Review* 14 (4), 157–180.
- Ostrom, E., 2007. Institutional Rational Choice. An Assessment of the Institutional Analysis and Development Framework. In: Sabatier, P.A. (Ed.), *Theories of the policy process*. Westview Press, pp. 22–53.
- Rérat, P., 2012. The new demographic growth of cities: the case of reurbanisation in Switzerland. *Urban Studies* 49, 1107–1125.
- Salamon, L.M., 2000. *The Tools of Government: A Guide to the New Governance. The New Governance and the Tools of Public Action*, pp. 1–47.
- Schmid, S., 2020. *Die Schweiz und ihre Mietpreis-Hotspots*. Republik, pp. 1–4.
- Stone, M.E., 2006. What is housing affordability? The case of the residual income approach. *Housing Policy Debate* 17 (1), 151–184.
- Swiss Federal Council, 2014. *Botschaft zu einem Rahmenkredit für Eventualverpflichtungen in der Wohnraumbeförderung für die Jahre 2015–2021*. Bern.
- Swiss Federal Council, 2016. *15.044 Geschäft des Bundesrates zur Änderung des OR. Mietrecht, Bern. 15.044 Geschäft des Bundesrates zur Änderung des OR. Mietrecht*, Bern.

- Bern.
- Swiss Federal Council, 2017. Verdichtetes Bauen in Ortszentren fördern, aber wie? Bericht des Bundesrates in Erfüllung des Postulats von Graffenried 14.3806, Bern.
- Theurillat, T., Rérat, P., Crevoisier, O., 2014. The real-estate markets: Players, institutions and territories. *Urban Studies* 52 (8), 1414–1433.
- Touati-Morel, A., 2015. Hard and Soft Densification Policies in the Paris City-Region. *International Journal of Urban and Regional Research* 603–612.
- Viallon, F.-X., 2018. Added value capturing in Switzerland: how much is enough? In: Gerber, J.D., Hartmann, T., Hengstermann, A. (Eds.), *Instruments of Land Policy - Dealing with Scarcity of Land*. Routledge, pp. 59–68.
- Williamson, O.E., 2000. The new institutional economics: taking stock, looking ahead. *Journal of economic literature* 38 (3), 595–613.
- Yin, R.K., 2018. *Case Study Research and Applications*. Sage, California.