

# The Sustainability of a Financialized Urban Megaproject: The Case of Sihlcity in Zurich

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## Abstract

*Financialization and sustainable urban planning are now two major components of urban production and landscape change in Western cities. The purpose of this article is to demonstrate how the intervention of financial actors influences urban sustainability in the building of megaprojects, by developing a conceptual framework for analysis and interpretation. This framework aims first to examine the way in which sustainability has been produced by the different actors involved in a real-life situation, and then to place these interactions in their institutional, spatial and temporal context. Consequently, sustainability is understood as a social construct which is the object of negotiations that have led to the making of institutional arrangements in order to allow the project to be carried through. This framework has been constructed from the financial geography and urban geography literature on 'finance, the city and sustainability' and from a case study. The latter looks at the regeneration of a brownfield site to create a shopping and leisure complex that was the biggest in Switzerland and was purchased by financial actors.*

Financialization and sustainable urban planning are now two major components of urban production and landscape change in Western cities. On the one hand, urban property — and more specifically major urban projects or megaprojects such as, for example, business districts, airports, sports stadiums or even urban network infrastructures — is increasingly owned by financial actors. On the other hand, these urban megaprojects have a significant impact on the organization of urban functions and city planning, which lean increasingly towards the precepts of sustainable development.

The purpose of this article is to demonstrate how the intervention of financial actors influences urban sustainability in the building of a megaproject. Within the framework of an institutionalist and territorial approach to the economy (Colletis-Wahl *et al.*, 2008; Crevoisier, 2010), this article develops an analytical framework that allows us to grasp the relationships between finance and sustainability in the urban production process. To be more precise, this framework aims first to examine the way in which sustainability has been produced by the different actors involved in a real-life situation, and then to place these interactions in their institutional, spatial and temporal context. Over the course of the different phases of one project, the actors constructed formal and informal institutional arrangements (Hodgson, 2006), reflecting issues that are financial and at the

same time relate to urban sustainability. Consequently, sustainability is understood as a social construct which is the object of negotiations that have led to an institutional arrangement being made in order to allow the project to be carried through.

The article is organized into three parts. In the first, we develop a territorial approach to financialization and to relations between the real and the financial spheres of the economy (Corpataux *et al.*, 2009). The second part presents the conceptual framework for analysis and interpretation that enables us to grasp the forms of sustainability produced in a real-life situation — the case of a recent megaproject development in Switzerland. This framework has been constructed from the financial geography and urban geography literature on ‘finance, the city and sustainability’ and from our case study. The third part gives an extensive presentation of this case study. It looks at the regeneration of a brownfield site to create a shopping and leisure complex that was the biggest in Switzerland and was purchased by financial actors. In this urban megaproject, traffic issues presented the major sustainability challenge. We shall show how a compromise on this issue was developed and institutionalized.

## **A territorial approach to urban production, linking financialization and sustainability**

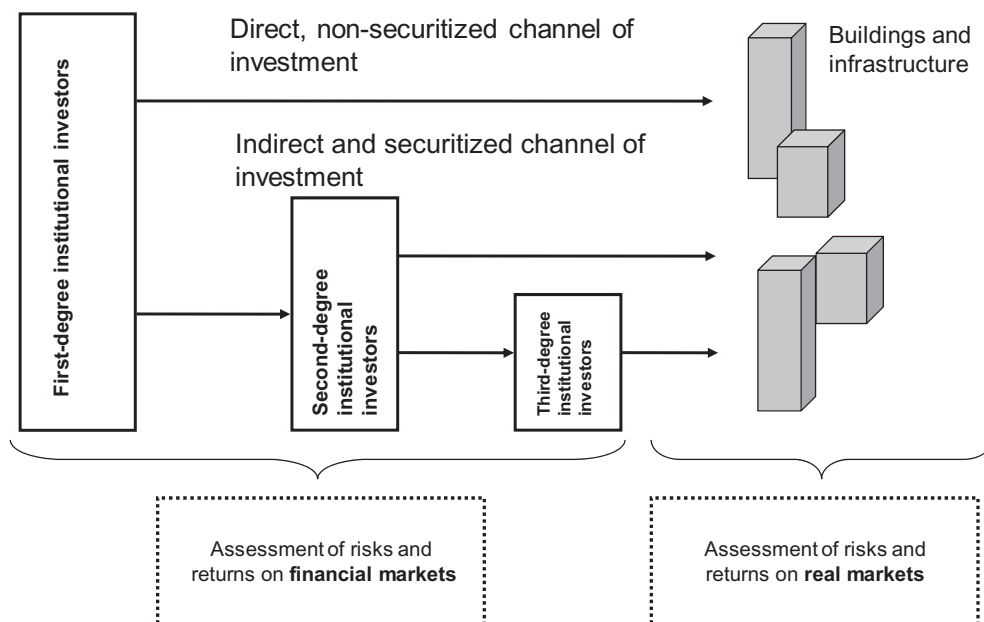
This section aims to situate our analytical framework, which allows us to grasp the production of sustainability through finance, within an institutionalist and territorial approach to relations between the real and the financial spheres of the economy (Corpataux *et al.*, 2009). This approach relies on the work of economists and geographers who have dealt with the links between property markets and financial markets. Firstly, we highlight changes in urban production that have resulted from the imposition of a financial logic on the city. Secondly, the financialization of the city is tackled from the perspective of sustainability.

### **The financialization of the city**

The city and the built environment have, generally speaking, played a major role in the accumulation and the spatial expansion of capital (Harvey, 1982; 1985). In this context, institutional investors such as property companies, banks and even insurance companies have been the traditional urban investment actors (Fainstein, 2001).

The origin of present-day links between property markets and financial markets has its roots in the creation of secondary markets in the United States (Weber, 2002), first in the 1960s through the securitization of mortgage loans granted to the middle classes and the creation of quasi-public institutions (Fannie Mae and Freddie Mac), and then in the early 1980s through the securitization of real estate and the appearance of a new type of financial institution — the Real Estate Investment Trust (REIT). During the 1990s, the US REITs inspired the creation and development of REITs in various European countries, in Australia and in Japan (Aveline-Dubach, 2008), and at the same time led to the modernization of property-based funds and the creation of new ones (Marty, 2005; Le Fur, 2006). Investment in bricks and mortar — notably in commercial property (offices or shops) — therefore saw a fresh upsurge in demand from financial institutions.

Since the turn of the millennium, links between the built environment and the financial markets have become even stronger; the impact of the 2000–01 stock market crisis on company shares was one of the essential factors in this. So a second wave of financialization of the built environment has developed in relation to the resurgence in urban megaprojects (Fainstein, 2009), which are potentially attractive financial products (Hagerman *et al.*, 2007; Torrance, 2009). Some investments now relate to large buildings traditionally held either in public hands (airports, stadiums, university buildings, hospitals, prisons, etc.) or by the private sector (big shopping centres, high-rise and other



**Figure 1** Categories of institutional investors and the two types of investment channels

business centres, residential complexes, etc.). Others also involve network infrastructures (telecommunications, energy, highways, etc.).

With the growing involvement of financial actors in urban property, some writers have suggested that financialization is now shaping the urban landscape, which is increasingly assessed according to financial criteria (Renard, 2008; Clark *et al.*, 2009). In our view, the financialization of the city is characterized by two main types of changes in the markets of the built environment.

Financial intermediation and the transformation of the city into a financial asset

In the first place, the financialization of the city means its transformation from a real asset into a financial asset and the development of a particular investment channel correlated to the introduction of a logic of managing portfolios on the financial markets.

The development of a financial logic in the built environment has been made possible by the strengthening in recent years of an indirect securitized investment channel as opposed to a direct non-securitized investment channel (see Figure 1). It brings together those whom we call ‘second-degree’ — or even ‘third-degree’ — investors, such as property investment companies or REITs, and property or infrastructure investment funds, usually belonging to the banking groups that have proliferated in recent years.<sup>1</sup>

This allows a ‘first-degree investor’ (e.g. an individual or an institutional investor such as a pension fund or an insurance company) to avoid investing directly on the real markets of the built environment and consequently to avoid owning physical objects; so second-degree investors have the ability to transform a tangible immovable asset like a building or infrastructure into a financial asset that is negotiable on the financial markets, either via organized trading mechanisms or by mutual agreement.<sup>2</sup> Thus,

1 They are given different names, which vary according to country, but there is an overall distinction between an investment company and an investment fund.

2 The market for deals by mutual agreement has developed significantly over recent years. Thus, unlisted property funds (often private equity funds or those with a limited number of investors) now represent the bulk of total investment in non-residential property (Nappi-Choulet, 2009).

through securitization, urban property becomes liquid and mobile in space (Corpataux and Crevoisier, 2005).

Going through an indirect securitized investment channel leads first-degree institutional investors to behave according to a logic of managing portfolios on the financial markets. On these markets, the built environment represents a category of assets that allows investments to be diversified. Within the framework of a financial engineering and allocation exercise, the financial risks and returns of the built environment can be compared not only to one another (e.g. the risks and returns of one investment fund to those of another), but above all to those of other categories of financial assets, by sector (e.g. stock in companies, derivatives, commodities) and by territory (North American, European or emerging markets, etc.).

Since the financialization of the economy allows continuous assessment of financial market investments (Orléan, 1999) and as it takes in new sectors and territories — consequently capturing the city — it may be interpreted as a process of constructing capital liquidity/mobility (Corpataux *et al.*, 2009). In this way, investors (or, to be more precise, portfolio managers) can invest in a ‘financialized space’ from a distance, using a financial logic that consists of putting together an assortment of territories and sectors.

Portfolio logic on the financial markets has two types of outcomes. First, through this almost instantaneous reallocation of capital on the organized markets, liquidity/mobility increases the separation between the functions of economic entrepreneur and financial investor, and as a result the separation between the real and the financial spheres of the economy. Second, financial institutions in indirect securitized channels of investment are subject to liquidity/mobility. The result of this is that they must be attentive to their value on the financial markets and take account of the — at times mimetic — behaviours (Orléan, 1999) of their shareholders, as well as of broader systemic fluctuations on the various financial markets.

#### Financial intermediation and changes to the urban production system

In the second place, the development of financial intermediation reflects the way in which financial logic has been imposed on the real markets of the built environment. We can highlight two types of change in the urban production system.

1 *The separation of economic and financial logics and the new role of developers:* First of all, financialization has brought functional changes as a result of the separation between ownership and use of the built environment. Although this split was already acknowledged,<sup>3</sup> Keogh (1994) was one of the first writers to develop an analytical framework, demonstrating the emergence and interconnection of three different types of sub-markets within non-residential property markets: the investment, use and development sub-markets. So the transfer of real estate property from business to financial actors has led to a separation between economic and financial logics, increasing the complexity of relationships between the functions of economic entrepreneur/property tenant on the one hand and investor/property owner on the other.

This creates a new role for developers and intermediary agents — such as consultancy and/or brokerage firms, for example — in real estate markets, since these markets must adapt to the requirements of their ‘new’ financial clientele. These professionals play a key role in the success of realizing investments (purchasing existing objects or developing new ones), since they have indispensable knowledge about local markets, whether in relation to commercial property or to urban infrastructure (Guy and Henneberry, 2002; Healey *et al.*, 2002; Torrance, 2009).

When it comes to developing major urban projects, this adaptation presupposes the acquisition of new skills and techniques in devising legal and financial arrangements. Lorrain (2002) observes that, in the context of a shift from property towards urban network infrastructures — principally in order to diversify risk — evident since the

3 It has been mentioned in the present-day literature, in particular since Massey and Catalano (1978).

1990s, groups have been created in various countries that are capable of designing, building, marketing and managing larger more integrated products. In Spain, for example, where property and building have constituted one of the principal economic sectors in recent years, large development/construction groups have expanded, diversifying their activities and products (Pollard, 2007). As well as developing and building increasingly varied projects (rental housing, second homes, tourist complexes, accommodation for students or the elderly, etc.), they may also manage them. Some of the literature (Beauregard, 1994; Haila, 1997) has looked at the nature and the extent of structural changes resulting from financialization of the built environment, as they affect the industry handling major urban projects; however, the issues remain open.

- 2 *Urban hierarchization and the internationalization of markets in the built environment:* Secondly, the imposition of financial logic on the real markets of the built environment produces a certain number of spatial effects. We can first highlight spatial hierarchization, since the investments made by financial institutions are closely correlated to the urban hierarchy. Whether in the UK (Byrne and Lee, 2006; 2007), in France and Germany (Roberts and Henneberry, 2007) or in Switzerland (Theurillat *et al.*, 2010), leading metropolises are the most privileged spaces in this hierarchy. Moreover, within metropolises, investments are targeted at certain districts. For example, Crouzet (2003) talks about ‘territorial discrimination’ and Halbert (2004) refers to ‘reshaping the economic geography of cities’ when discussing the imposition of autonomous financial dynamics on commercial property market cycles, leading to the creation of urban hubs that reinforce functional and spatial division within metropolitan Paris.

Moreover, the development of financial intermediation can also be correlated to the internationalization of markets in the built environment, which are increasingly organized and function at a global scale (Aveline-Dubach, 2008; Torrance, 2009). This internationalization may further accentuate the concentration of investments in the leading metropolises. Nappi-Choulet (2006) has observed that, since the early 1990s, a growing number of foreign institutional investors — mainly US and German — have become involved in property markets in the Paris region.

Since most of the major property funds are located in metropolises that are financial centres, these are the *de facto* proximity spaces of financial institutions (Lizieri, 2009). Therefore, questions can be raised about the extent to which capital has converged towards the financial metropolises over the last 15 years, and consequently about the role of this financial accumulation in the transformation and modernization of their landscapes, as well as in making them increasingly attractive. This leads us to the hypothesis that the power of financial centres to take decisions and to engage in ‘spatial arbitrage’ (Leyshon and Thrift, 1997) in the built environment is being strengthened.

### The impacts of finance on the city and the issue of urban sustainability

What are the real effects of finance on the city? This question has invariably been posed in the light of the behaviour of financial institutions active on the markets of the built environment (e.g. Adair *et al.*, 1999; 2003; McGreal *et al.*, 2000; Nappi-Choulet, 2006). However, the issue of the impact of finance from the sustainability point of view has only very recently become a topic for study. More precisely, the relationships between ‘finance, the city and sustainability’ have been tackled mainly in the English-language literature. In the United States, various works have related to the integration of sustainability into institutional investors’ policies for investing in the built environment — and, more specifically, into the policies of major public pension funds (Hagerman *et al.*, 2005; 2006; 2007; Hebb, 2005a; 2005b). The latter are behind the growth of financial intermediation in property and the creation of sustainable property funds that take sustainable development into account. However, this literature does not look at the way in which financial capital is invested in the city in practical terms.

In the UK, several works have been published looking at the way in which sustainability has been integrated into cases of industrial or urban brownfield regeneration operations. In the context of national programmes, the latter have been marked both by the integration of sustainability and the involvement of institutional investors in financing projects, encouraged in particular by the growth in public–private partnerships (PPPs). This literature reflects two possible approaches to assessing the sustainability of urban projects.

Firstly, a sustainability framework can be constructed *a priori* and then applied to case studies. This, for example, is the approach adopted by Williams and Dair (2007). Secondly, a sustainability framework may result from the case study and be constructed *a posteriori*. This, for example, is the approach used by Dixon (2007). However, both these approaches rely on an external notion of sustainability and not on a definition applied by the actors themselves. In our research, we had no intention of comparing practices to a norm of sustainability; rather, we intended to try and understand how sustainability is appropriated, structured thematically and then negotiated by actors in a real-life situation. This is precisely what leads us to propose a conceptual framework that can be used for both analysis and interpretation, where the sustainability produced by market finance is situated in an institutional and territorial context.

### **A conceptual framework for analysis and interpretation: sustainability as an institutional and territorial construct**

The approach of linking ‘finance, the city and sustainability’ proposed here is intended to be both institutionalist and territorial (Colletis-Wahl *et al.*, 2008; Crevoisier, 2010). It is based firstly on a real-life approach that aims to understand the processes involved in constructing urban projects, examining the way in which sustainability has been produced by the different actors concerned. By viewing sustainability as the product of social interactions, this real-life approach can be justified principally by the fact that a form of urban development currently exists, involving multiple actors and new planning methods described by Healey (1997) as ‘collaborative planning’. Therefore, sustainability relates to issues of governance and raises the question of convergence in actors’ thinking (Evans and Jones, 2008) when putting sustainability into practice in specific urban projects.

Secondly, the social production of sustainability should also be situated institutionally and territorially. In a context where urban planning is increasingly permeated by the precepts of sustainable development (Emelianoff, 2002), we see our work as part of the emerging urban geography literature on ‘actually existing sustainabilities’ (Krueger and Agyeman, 2005; Krueger and Gibbs, 2007; Evans and Jones, 2008). This takes an empirical yet critical approach to governance and urban policies on sustainability in different social, political and economic contexts. Within this framework, While *et al.* (2004) postulate the emergence of new institutional and political arrangements for urban governance, which they describe as an ‘urban sustainability fix’.

We are proposing a conceptual framework for analysis and interpretation that enables us to understand the forms of urban sustainability produced by finance in the case of multi-purpose urban projects in Switzerland. These are innovative megaprojects at the national scale, involving several hundred million Swiss francs; they have proliferated over the last 10 years and have become investments that are increasingly offered to financial institutions. These megaprojects combine different purposes — mainly shopping and leisure (hotel, spa, cinema, etc.) — and, in the case of PPP projects, may bring together private and public uses (e.g. a football stadium coupled with a shopping centre has become a Swiss speciality).

The framework we developed in order to grasp the relationships between ‘finance, the city and sustainability’ was constructed both during and following a study of four urban megaprojects that was conducted within a national research programme on the built environment and sustainability in Switzerland (PNR 54).<sup>4</sup> From a methodological point

4 <http://www.nfp54.ch/f.cfm?Slanguage=f>

of view, these case studies were an exploratory exercise intended to look at the question as formulated upstream of the linkages between financialization and sustainability. The objective was to provide ‘learning opportunities’ (Stake, 2005) — that is, to use empirical results with the aim of developing a conceptual understanding of the forms of sustainability produced by finance. Therefore they focus on sustainability issues created by the actors, situated in their institutional and territorial context.

This conceptual framework has a threefold methodological function. Firstly, it takes up points established by the literature in the sphere of financialization of the city and of urban sustainability; secondly, it has enabled us to conduct an analysis of case studies by identifying the main relevant objects, relationships and institutions; thirdly, it provides a framework for interpretation that makes no claim to generality, aiming rather for contextualized understanding of the linkages between financialization, sustainability and production of the city.

### **The production of megaprojects: their purposes, sustainability, actors and institutions**

Firstly, the imposition of financial logic on urban megaprojects in Switzerland and the resulting dissociation from economic logic mean that they must be considered as technical, economic and financial projects linked respectively to development, operation, financing and ownership.

Any urban object is characterized first of all by its technical properties such as, for example, the characteristics of the buildings (dimensions, types of materials, energy equipment, etc.) and their purpose (housing, offices, shops, public services, etc.). These technical choices also correspond to economic and financial characteristics: choices at the construction stage make certain savings possible; the type of activity defines a certain level of profitability; and so on. Economic and financial risks are also largely the result of these choices (pollution removal works, building work, the search for investors and tenants, etc.).

Some of these choices can also be sustainability issues — that is, they illustrate the tensions between finance and sustainability. For example, traffic issues (size of car parks, use of public transport, etc.), energy issues (application of a ‘green building standard’) or even the issue of public space also raise, simultaneously, the question of cost–benefit distribution, as well as that of risk sharing (e.g. who will finance technical installations that will be efficient in the long term and what will be the consequences for tenants’ profitability?).

Secondly, the content of the territorial sustainability issues depends on the various actors involved and the institutional arrangements that they develop. We can distinguish between five main groups of actors. These are institutional actors who become involved according to specific logics of action (rationalities), i.e. according to their roles/functions and their interests, and for whom the urban project has a special significance (see Figure 2). The first group of actors below relates to the supply chain, the following four to demand:

- The commercial logic of property developers and specialized actors: for megaprojects carried out in Switzerland in recent years, the country’s leading development companies have gradually acquired new skills and are now involved in coordinating various specialized development, construction and even management professionals (architects and engineers for design; general construction companies for building; property valuation and consultancy firms for assessing the project’s economic and financial profitability) (Theurillat, 2010). Consequently, when developing an urban project, the developers respond to specific demands in the areas of financing and ownership, operation or use.
- The financial logic of institutional investors: the built environment represents a financial product whose profitability and risk are calculated using new finance-driven

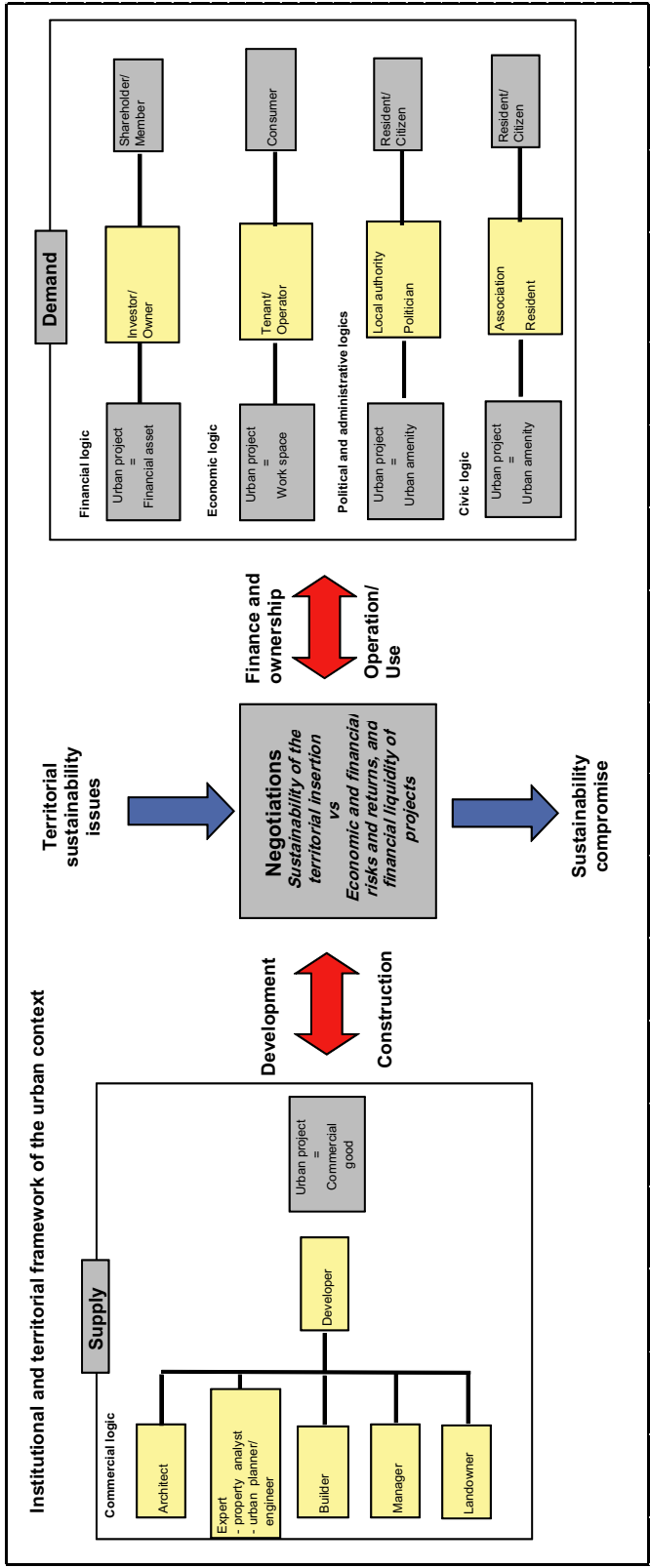
methods that allow assessment of regular incomes from rents (cash flows), as well as assessment of the increase in value over time. In parallel, the purchase of an urban object may be made for speculative reasons or because of anticipated capital gains. Consequently, potential liquidity is a key criterion here. For financial institutions that are in the indirect securitized investment channel, incomes are ultimately distributed to shareholders in the form of dividends or as capital gains linked to returns on the financial markets. For financial institutions that are in the direct investment channel, incomes finally come back to members in the form of social security benefits.

- The economic logic of commercial operators: since the urban project is a work space, commercial operators act according to an economic rationality — that is, one based on achieving turnover by supplying goods or services to consumers.
- The political and administrative logics of public sector actors: since the urban project is an urban amenity, public sector actors play many different roles and represent multiple interests. First of all, the municipality is a specialized administrative institution, planning the urban space and regulating building. Then the municipality is also a political institution, made up of elected representatives who have different conceptions of urban development. Indeed, urban projects may contribute to economic development and make the city more attractive at the regional or even the national level. At the same time, the quality of projects is also a political issue and in this context some aspects of sustainability may enhance it from a political point of view (e.g. a project as a public good, the positive perception of green building standards, etc.).
- The civic logic of local associations or even residents: the urban project is also an urban amenity. Under Swiss legislation, environmental associations — ProNatura Switzerland, WWF Switzerland, the Transport and Environment Association (ATE), the Swiss Heritage Society, the Swiss Foundation for Landscape Conservation, Greenpeace Switzerland, etc. — have a right of appeal, as do private individuals during the 30-day inquiry phase of any development project. The practice in Switzerland is to publish planned projects with the aim of allowing the public to exercise rights of appeal.

The various logics of action listed can take on different configurations and be combined in different ways, according to the project and the urban context. On the one hand, private sector actors may set up consortia right from the outset, with partnerships relating to the development, building, operation, financing and ownership of projects (Torrance, 2008). In parallel, urban project development may be carried out within financial institutions (Theurillat, 2010). On the other hand, the local authority may also be a direct partner in urban projects developed under public–private partnerships (PPPs), which take various forms depending on the national context. Switzerland has also seen the development of a movement (albeit only very recently) aiming to promote the development of PPPs in the built environment through various institutional reforms, including the overhaul of public procurement contracts (Bolz, 2005).

The various groups of actors mentioned above interact both in and on institutions (Hodgson, 1998; 2006). In the case of urban projects, the framing institutions are the various national legal and regulatory standards — applied at regional or local level — covering matters of urban planning and building as well as environmental protection (in particular, mandatory environmental impact studies for big traffic-generating projects). These represent the basic level of sustainability issues on which the actors will interact and negotiate, finally deciding upon formal and informal institutional arrangements.

The territorial and institutionalist framework proposed here relates specifically to identifying the actors involved in negotiations around territorial sustainability issues, whom we characterize as actors of sustainability who have chosen voice (Hirschman, 1970) and also identifying how these issues reach resolution institutionally (i.e. types of institutional arrangements), adopting compromises in order to realize the urban project



**Figure 2** Forms of sustainability produced by finance according to the leading actors' logics of action

(Figure 2). Although it is restrictive, this seems to provide an adequate view of sustainability to put into operation ‘in the field’ and to interpret the way in which financial logic is being imposed on the built environment. In particular, it allows us to understand how sustainability — which is far from having an agreed definition — is appropriated, structured thematically and then negotiated in a real-life situation.

### **The production of megaprojects: time and territory**

The types of institutional arrangements made between actors around territorial issues must also be assessed according to their spatial and temporal dimensions (Jessop, 2001). The latter can be highlighted by looking at the chronological progression of a project, in which we propose to distinguish four phases.

First, the territorial context within which the project is launched constitutes the pre-project phase. The availability of land, the ownership rights to it (public or private property), the legal and urban policy frameworks, the range of technically feasible solutions, the nature and scope of sustainability issues and the private and public sector actors who are — or could be — involved at different scales: all these are examples of the many territorial dimensions relevant at the outset of a project. However, the crucial element is in fact the quality of relations between the various actors — private and public — that characterizes the local context. This first highly exploratory phase consists of identifying and jointly negotiating the technical and economic characteristics (purposes, profitability, cost, etc.), the actors who will participate, the agreements that will bind them (concerning costs, risks and benefits) and the territory (location and the way it fits into the territory, coordination in terms of timing). Generally speaking, the process can be set in motion from any of these dimensions, whether by the action of a developer when a plot of land in a city centre has become available or following a request by a local authority (inviting tenders for a PPP project).

Second comes the project development phase. This runs from initial design to finalizing the concept and obtaining the building permit from the local authority. The project development phase will involve defining each of the many territorial dimensions precisely, through intensive negotiations between the actors involved. Within this framework, the kind of sustainability that is negotiated relates to many different forms of technical, legal, economic and financial assessments, carried out with a view to evaluating risks, benefits and the costs to be borne by the actors when they make a commitment to a process that always contains an element of uncertainty. These negotiations end in a certain number of institutional arrangements being made in order to realize the project. Where these are initially agreements in principle, conventions or even informal agreements on the basis of trust, they lead to more formal and precise agreements as the projects take on concrete form (building permits and ownership or leasing contracts). Therefore we need to examine what types of institutional arrangements have resulted from compromises reached around sustainability issues.

Third, there is the project construction phase, which essentially brings together the owner and the general building contractor, with the latter in charge of the material quality of the infrastructure. In this phase, various issues that have not been defined in the building permit or contracts (with the general contractor, leasing contracts, contracts giving authority to find tenants, etc.) will arise. Here, too, the institutional arrangements around some sustainability issues may be readdressed and reoriented.

Finally, there is the operational phase of the project. This is the long-term realization phase, permitting owners and operators to obtain (or not) a return on their initial investment. Consequently, questions must be asked about the ways in which they are involved over the long term — testing their loyalty (Hirschman, 1970). From the sustainability point of view, this is the phase during which a territorial impact study can be conducted. If there are negative impacts, the institutional arrangements for sustainability may be challenged and a new phase of negotiations set in train.

## The Sihlcity megaproject

This section presents one of the case studies that originally gave rise to the development of our territorial approach to relations between ‘finance, the city and sustainability’, and to our conceptual framework for analysis and interpretation (as set out above). The aim of this section is to illustrate the complex linkages between financialization, sustainability and the urban production process, and to show how we were able to identify and analyse them in a specific situation, leading to a meaningful interpretation of this case.

The Sihlcity megaproject in Zurich was the first big ‘urban entertainment centre’ (UEC) in Switzerland — a shopping and leisure centre including almost 80 shops, a spa, nine cinema screens, a library, a church, a hotel and restaurants, as well as offices and apartments — which was acquired by financial actors for a total cost of CHF 600 million. Opened in 2007 in the heart of Switzerland’s largest metropolitan area, this ‘first’ was developed by one of the country’s leading development and construction companies.

From a methodological point of view, our study of this urban project was carried out in 2008 on the basis of documents (building permit, environmental impact study, market analyses, etc.) and about 10 in-depth interviews — each lasting at least an hour — with all the actors involved (investor/owner, developer/builder, main tenants, specialized utilities, manager, architect, the ATE).

This real-life approach to the forms of sustainability produced by finance in the case of the Sihlcity project enabled us to identify the problem of reducing traffic — specifically private vehicle traffic — as being the central sustainability issue. This led to a compromise known as the *Fahrtenmodell*, which was institutionalized and has enabled car traffic to be reduced by half. This model has also been widely followed for other projects in Zurich.

First the progress of negotiations around car traffic is described chronologically, using the four phases of an urban project set out above. Secondly, the logics of action of the actors involved are assessed within the framework of a ‘restrained voice’ sustainability compromise in a ‘local financialized channel of investment’.

### Car traffic as a territorial sustainability issue for the Sihlcity megaproject

The territorial sustainability issue raised by car traffic must first of all be resituated in the context of an earlier urban project planned by the same development company, as well as in the context of the City of Zurich’s urban policies.

The context of the project: a conflict dating back 20 years

At the beginning of the 1980s, local development company Karl Steiner drew up an initial plan to develop and build an office complex (Project Utopark) on a brownfield site belonging to industrial company Sihl & Eika, with which Karl Steiner had an exclusivity contract to purchase the land. This was a big project (total floorplan area of 96,000 m<sup>2</sup>) and although it was not challenged from a compliance point of view, the City of Zurich opposed it on the grounds that an office district was not appropriate for the location concerned. After a legal dispute that reached national level (the Federal Supreme Court), the developer obtained a building permit in 1999. However, in the meantime the economic window of opportunity had closed, since the potential tenants (insurance companies and banks) had rented other premises. The developer was therefore forced to devise another concept for exploiting the land.

In drawing up its new project, the development company wanted to avoid repeating the failure of the Utopark project. It decided to begin negotiations with the City of Zurich in order to clarify the latter’s requirements, thereby allowing the new project to come to rapid fruition on this promising site. Firstly, the land was extremely well situated: located next to a highway and less than three kilometres from the city centre, in a metropolitan area with over one million residents. Secondly, in addition to the advantage of belonging to a single owner, this large plot of land (41,991 m<sup>2</sup>) did not require any changes to the

planned purpose of the complex, since the comprehensive community development plan already provided for a focal zone at that location (City of Zurich, 2005).

The negotiations between the two parties took place in a new urban development and urban management context. This was because, since the mid-1990s, the City of Zurich had developed a policy of collaborating with the private sector in urban planning matters, referred to as ‘collaborative planning’ (Eberhard *et al.*, 2007). Situated in the context of a population growth strategy aiming to bring people to live (or back to live) in the city centre (Rérat *et al.*, 2010), this new approach related primarily to the city’s many brownfield sites.

The reurbanization of the city also relied on one of the principles of the City of Zurich’s sustainable development strategy — that of ‘building the city on the city’. A new urban planning and zoning model came into force in 2002 (Wehrli-Schindler, 2007). This was closely structured around the new travel and transport strategy for the Metropolitan Region of Zurich, in preparation at the same time as the Sihlcity project was being developed. With a view to drastically reducing traffic in the Zurich metropolitan area, the thinking was to act upstream of traffic generation, aiming to influence individual modes of transport and encourage people to use collective passenger transport. The development of this new travel and transport strategy (2001–05) was made possible by enormous investment in improving collective passenger transport in the Zurich metropolitan area (which now has the densest transport network in the country).

In this new negotiating context (which was also favoured by political and administrative changes at the top of Zurich’s capital works department), the City of Zurich’s representatives put two requirements to Karl Steiner at a preliminary meeting in the spring of 1999. Firstly, for a project of this size, the developer had to call on the services of a renowned architect. Secondly, in order to contribute to the city’s functional diversity, the construction project had to be ‘multi-purpose’, i.e. it had to include a mix of uses for the available premises and no longer be a ‘single-purpose’ project (as Utopark had been).

The project development phase: institutionalizing the issue of private vehicle traffic and anchoring a local financialized investor

During the development phase of the Sihlcity project, negotiations relating to the issue of private vehicle traffic were the most intense. They gradually led to an institutionalized compromise on limiting car traffic, which was written into the building permit in the form of a traffic management model (the *Fahrtenmodell*).

Complying with the requirements of the City of Zurich, the development company called on the services of an internationally renowned local firm of architects. A project master plan was drawn up. This first concept, named ‘Sihlcity’ and based on the idea of ‘a city in the city’, incorporated basic features for tackling the car traffic issue. It provided for the construction of an underground car park with 1,321 spaces, in keeping with the City of Zurich’s legal requirements (City of Zurich, 1996) stipulating that the number of parking spaces depends mainly on the nature of use of the premises. This master plan formed the starting point for negotiations between the City of Zurich (mainly via the urban planning and transport departments), the development company and the firm of architects that had been commissioned.

Initially, the form of sustainability that Sihlcity assumed from establishing the first *Fahrtenmodell* was the result of a compromise between the commercial logic of the development company and the political and administrative logics of the City of Zurich. Relying on the new travel and transport strategy, the City of Zurich’s representatives initiated debate regarding the private vehicle traffic that would be generated by Sihlcity. A new model for limiting the number of car journeys (the *Fahrtenmodell*), then still in preparation, was proposed in place of the traditional, legally established model that was undergoing review. This new model, applied for the first time in the Sihlcity project, involved half the centre’s customers using collective passenger transport, a reduction in

the size of the car park (805 spaces instead of the 1,321 spaces permitted by the legislation) and restricting car park use through vehicle flow control. In return, the new model allowed more comprehensive flexible management of the car park than the traditional model.

Karl Steiner — having lost 19 years trying to develop a project for which it already owned the land — also became involved in drawing up the *Fahrtenmodell* for Sihlcity; this constituted a major risk for the developer, since it lay at the economic heart of the project. For that reason, the challenge for the developer throughout its negotiations with the City of Zurich was to ensure that the traffic issue did not significantly add to the project costs and, above all, that it did not jeopardize its economic viability or financial profitability, i.e. the work of finding tenants and investors.

The earliest bilateral negotiations began with a preliminary study by a specialist firm to evaluate the existing public transport infrastructure and to measure the potential customer base using different modes of transport. This evaluation raised the issue of finance if the offer of public transport services to Sihlcity were to be improved.

The results of the study showed that Sihlcity was economically viable as a commercial project on the basis of the existing public transport infrastructure. It was estimated that there would be 20,000 visitors a day: 60% of customers would come by 'soft' transport (over 50% by public transport — 10,700 people — and the remainder on foot or by bicycle — 1,300 people) and 40% in private vehicles.

Following the results of this study, negotiations continued for several months. The developer pressed for work to be speeded up to extend a tram line and a bus route that already figured in the City of Zurich's public transport planning programme.

In order to clarify what was going to appear in the building permit, 'round table' discussions took place at the beginning of 2002. As the City of Zurich had not been able to complete the connecting works required within the developer's timescale, in the end the developer took on the running costs (CHF 1 million) involved in extending a bus route that would run near the complex for the first 2 years.

The building permit containing the principles of the *Fahrtenmodell* was issued a few days after these discussions were concluded (City of Zurich, 2002). The permit confirmed that 60% of customers would use 'soft' transport and that there would be 805 parking spaces; it also laid down the precise procedure to be followed if the traffic flow limits (fixed at 10,300 vehicles per day and 1,300 per night)<sup>5</sup> were exceeded. Thus, within the framework of establishing the *Fahrtenmodell*, the developer became a prisoner of the excellent connections between the land it owned and the transport networks, demonstrated by the study that had been commissioned. For its part, the City of Zurich found an advantageous way of presenting its new travel and transport strategy, then still in preparation, and applying it for the first time to an urban regeneration project.

Next the developer had to face the civic logic of the local branch of the Transport and Environment Association (ATE). Despite the measures outlined above and the fact that a building permit had been issued, the question of traffic arose again in the spring of 2002 (while the developer's negotiations with future operators and investors were in full swing). The ATE appealed against the building permit, as regional legislation allowed, citing its lack of precision regarding the procedure to be followed if traffic flow limits were exceeded.

Three actors therefore came together during 2002: the City of Zurich acted as mediator between the ATE and Karl Steiner. For the company, it was important to settle

5 If these limits are exceeded, the agreement between the ATE and the owner of the complex (Crédit Suisse) provides for a payment of CHF 50 per additional journey in the first month. Then, if the situation has not improved within a month, it provides for a scenario in which there would be a return to the traditional parking management model. This means strict division according to the use of the premises (so many places for the shopping centre, so many for the cinema, etc.), the payment of CHF 50 per journey over the original limits and the addition of a new bus route serving the complex.

the problem quickly and to find a solution that would not jeopardize the project and the pre-established agreements with the main tenants and investors. At the City of Zurich's request, the agreement between the ATE and the developer was enshrined in a second building permit, issued at the beginning of 2003, so that the final version of the *Fahrtenmodell* would become public and permanent. In particular, this second permit clarified the methods for calculating the number of parking spaces and the traffic flow limits, plus the financial sanctions to be applied if the latter were exceeded (City of Zurich, 2003).

In parallel with the negotiations on the private vehicle traffic issue — crucial to obtaining the building permit — Karl Steiner was looking to sign up its main operators and potential investors. Therefore the development company had to demonstrate that the form of project sustainability linked to the *Fahrtenmodell*, constructed using the political and administrative logics of the City of Zurich and the civic logic of the ATE, did not constrain operators' and investors' economic and financial logics. In other words, it was a case of proving that Sihlcity would be easily accessible to a very large potential customer base. The other argument, aimed more specifically at investors, was the innovative 'city in the city' concept, with its mix of shopping and leisure on a large scale, intended to respond to customer demand.

Early market studies confirmed the economic potential of the country's first UEC. Sihlcity was to be situated in the southern part of the Zurich metropolitan area (which was poorly resourced as far as shopping and leisure were concerned); it would attract customers from within an area that had the highest population density and greatest purchasing power in the country. These studies also underlined the appeal of the original concepts of a UEC and of 'a city in the city', with the modern linked to the past through the retention of three industrial buildings.

Next, starting from an overall concept of shopping and leisure use within the traffic restrictions linked to the *Fahrtenmodell*, other studies were conducted with the aim of refining and optimizing use of the premises (hotels, restaurants, types of shops) and of calculating expected turnovers. These data were then used to determine the rents that could be charged and their potential trends over time (Wuest & Partner, 2001; 2002). These studies effectively constituted the starting point for actively seeking tenants/operators and investors/owners.

As far as tenants/operators were concerned, initial contact was established with the country's two leading retail groups (Migros and Coop). These were viewed as the 'engines' around which other shopping chains would gather.

In order to identify potential investors in Switzerland and abroad, a market analysis was carried out by the same specialist firm. From the outset, the developer had judged that Sihlcity was too large a project for most Swiss institutional investors. Therefore, an invitation to tender was extended to 19 investors, 15 of whom were foreign firms.

In fact, the project was acquired in its entirety in the summer of 2003 by a local investor, Crédit Suisse (CS), whose property funds represented some of the most prestigious in the Swiss market. CS had very rapidly expressed interest in Sihlcity, which offered it many advantages. First of all, property investment funds were developing exponentially at the time, having been presented as more solid alternatives following the 2000–01 stockmarket crisis (Theurillat *et al.*, 2010). Consequently CS's various property investment vehicles had money to invest. The UEC concept was deemed economically and financially viable,<sup>6</sup> and would make it possible to diversify investments into different vehicles. For Sihlcity, CS set up a bespoke operation by creating a co-ownership structure (Sihlcity SA) bringing together five investment funds and an affiliate property company (Swiss Prime Site), all managed by Crédit Suisse Asset Management Real Estate (CSAM–RE). This first internal 'pooling' made it possible to absorb the CHF 600 million paid for the project, while diluting the risk.

6 Annual rents amount to CHF 46 million.

In addition to this financial operation, CS needed premises for itself. In fact, it already owned several office buildings opposite the planned complex. It was thus perfectly familiar with the problems of the district and the urban policy context in terms of traffic. Finally, CS's local knowledge gave it a clear idea of Sihlcity's shopping and leisure potential, so it purchased the project even though only half the available space had been let to four main tenants.

#### The construction phase: economic optimization and cost control

As soon as the contract was signed, CS as the new owner became the project's main actor. During the construction period (2003–07), it found itself in a dual position: that of developer — the role previously performed by the development company — and that of financier.

So within the commercial logic of trying to find tenants/operators for the remaining leasable areas, CS had to meet tenants' requirements (in terms of location, size of premises and cost of shop fittings — although the latter were to be paid for by the operators). In parallel, the owner tried to optimize Sihlcity's profitability in two ways. Firstly, the creation of the tram-line extension was negotiated with the City of Zurich, and CS undertook to pay the operating costs for the first 2 years.<sup>7</sup> Secondly, a new plan for allocating usage to the various premises was drawn up in July 2003, with a view to increasing the total space available.

The actual construction was carried out by Karl Steiner under a full service contract. This meant it had to complete the building work within the total budget agreed for development and construction.<sup>8</sup> CS was also faced with additional costs during the construction phase of the project (estimated at CHF 15 million). In order to minimize the sums involved and to monitor Karl Steiner's work, CS called in a specialist firm. So the issue for the owner was to ensure the profitability of its large investment by minimizing additional expenditure during the construction phase.

#### The operational phase: management of the *Fahrtenmodell* and profitability outlook

The operational phase is the long-term realization of the project, where the specific logics of each of the actors involved must be managed and where it is possible to assess the results at intervals over time.

Since Sihlcity opened in March 2007, management of the complex has been carried out by a company — Wincasa, an affiliate of CS — that had recently begun to specialize in managing shopping and leisure complexes for institutional investors.

The economic and financial challenge for CS from the beginning of the operational phase was to optimize the economic viability of the *Fahrtenmodell*, notably by taking control of the customer catchment area. Here it took two particular courses of action. Firstly, in order to comply with the agreement with the ATE, a home delivery service was rapidly established, making it possible to extend the market radius. Secondly, a promotional campaign encouraging customers to come to Sihlcity by public transport, on foot or by bicycle was launched, financed in partnership with Zurich's public transport authorities. To date, the *Fahrtenmodell* has not been detrimental to Sihlcity's profitability. In recent years, reported turnovers have corresponded to forecasts (CHF 341 million for 2009 and CHF 372 million for 2010; turnover for 2010 had been estimated at CHF 400 million).<sup>9</sup>

7 We should clarify that, following the Sihlcity building works, the costs of remodelling the regional railway station were met by the state (City, Canton and Confederation), which also provided massive investment to improve public transport networks in the Zurich region.

8 The price of the land was CHF 56 million and the pollution removal costs — met by the landowner — were CHF 12 million. Therefore, by selling the project to Crédit Suisse for CHF 600 million, Karl Steiner received CHF 532 million to develop and build the project.

9 <http://sihlcity.ch/de/meta/medien/archiv.php>

Nor does the *Fahrtenmodell* represent a sustainability issue for the owners of Sihlcity in terms of relations with the ATE's civic logic or the City of Zurich's political and administrative logics, since maximum traffic flow limits have not been exceeded.

### **The Sihlcity *Fahrtenmodell*: a 'restrained voice' sustainability compromise in a local financialized channel of investment**

The *Fahrtenmodell*'s territorial arrangements for the form of sustainability produced by finance in the Sihlcity project may be described as a 'restrained voice' compromise. These arrangements were characterized by the dual constraint of trying to insert an urban object into a financialized system based on exit, and into an urban system that is subject to sustainability concerns, which are in turn more broadly linked to the development of coherence between urban planning and transport, and particularly to the local integration of urban projects. The negotiations involved in this dual insertion were made easier by the fact that they took place in a local financialized channel of investment. Zurich is one of the world's leading money markets, belonging to the category of 'global city', and is home to Switzerland's leading property investors, of which CS is one. Consequently, the issues at stake and the current compromise were the product of four groups of local actors negotiating according to their own logics of action throughout the different phases of the project (see Figure 3).

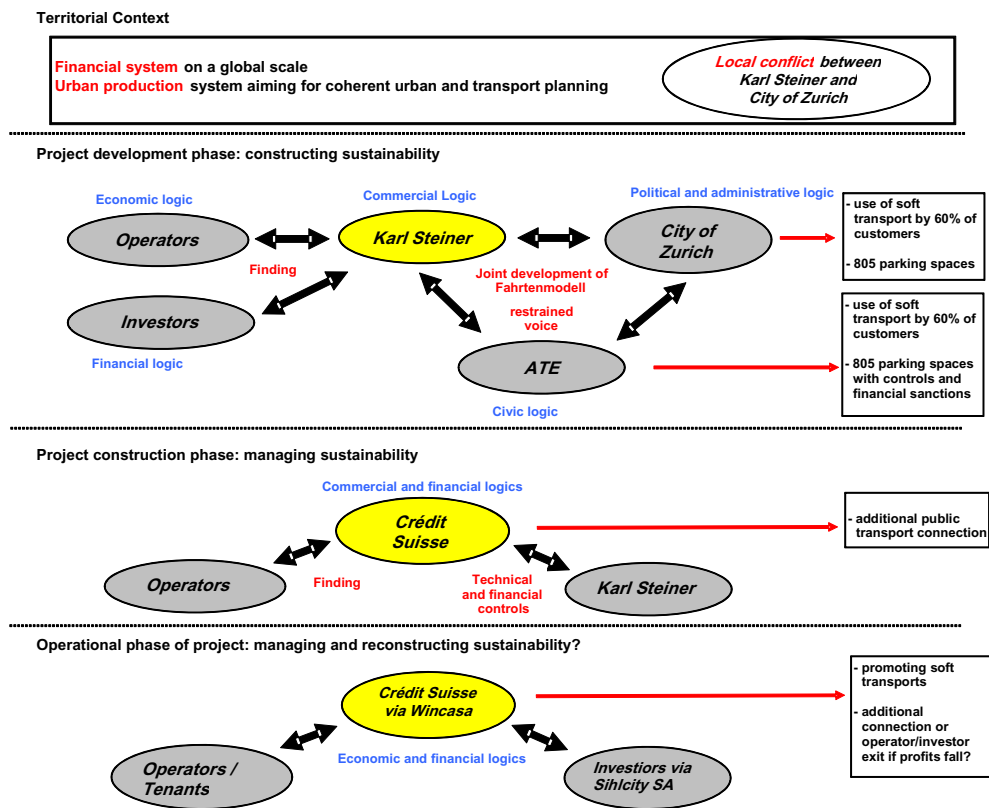
The development phase was decisive, and consisted of constructing sustainability on territorial issues — namely traffic management and the customer catchment area. Inherently involved in a commercial logic, the developer managed to create linkages between the different logics of action of the actors involved, through a process of sequential dissociated negotiations.

On the one hand, the developer was faced with the political and administrative logics of the City of Zurich, and the civic logic of the ATE concerning the sustainability requirements for obtaining the building permit. First of all, the developer and the City of Zurich had to reach agreement in order to overcome a conflict that simmered for nearly 20 years. The developer had to deal with the traffic question that was brought into the debate by the City of Zurich and perpetuated by the ATE. On the other hand, the developer had to confront the financial and economic logics of investors and operators in order to see a profit on its initial investment. So, secondly, the impacts of the *Fahrtenmodell* were expressed in economic and financial terms in such a way that the project would be viewed as profitable by operators and investors.

In this context, the developer had to deal with the City of Zurich's capacity to block the project, and with the tenants' and potential investors' capacities for exit. The developer's advantage was the possibility of using its exclusive rights to add value to an extremely well-situated piece of land.

As soon as CS bought the project, it became the chief actor involved in managing the sustainability written into the *Fahrtenmodell*. Since it was a local financial actor, CS's knowledge of the territorial context — with its traffic issues — helped to make its decision making easier. So CS was in a better position to assess the risks of the project — firstly of investing in a UEC, something entirely new for the country, and secondly of the *Fahrtenmodell* as far as economic profitability was concerned.

As owner, CS became intrinsically involved in a threefold logic. Firstly, it took into account a developer's commercial logic when finalizing the search for operators during the construction phase. Secondly, it found itself drawn into an economic logic through its management company, Wincasa. With a view to preserving economic profitability, CS improved the public transport network during the construction phase, and got involved in promoting 'soft' transport when the complex came into operation. Thirdly, it was situated in a financial logic. By setting up a limited company, Sihlcity SA, owned by six entities in proportion to the sums they had invested in the operation, CS was acting as a financial intermediary, allowing funds to preserve their possibility of exit in case of a crisis on the financial markets.



**Figure 3** The Sihcity *Fahrtenmodell*: a 'restrained voice' sustainability compromise

Up to now, managing 'restrained voice' on the issue of limiting car traffic has not posed any problems, and the Sihcity project can be considered a success. For CS, the economic and financial returns have not been challenged by the *Fahrtenmodell*, since the investors and operators are in a position of loyalty, as they are still the original financial owners and commercial operators. As far as the City of Zurich is concerned, Sihcity has allowed it to link urban planning and transport in a coherent way, and to apply the *Fahrtenmodell* to other urban regeneration projects in the municipality (City of Zurich, 2007). Thus the *Fahrtenmodell* has become a structuring element of sustainable development.

However, the agreement around the issue of car traffic could be challenged and could lead to new negotiations if, for example, the traffic flow limits for the parking areas were exceeded or if economic profitability were to fall. It is also conceivable that a new territorial context framing the renegotiated construction of sustainability might call into question the loyalty of investors or operators.

## Conclusion

The purpose of this article is to demonstrate how financial actors take sustainability into account when developing urban projects. It relies on constructing a framework for analysis that takes as its starting point the functional and spatial changes introduced by finance, and allows us to approach the production of sustainability in cases where commercial urban megaprojects have recently been produced in Switzerland and purchased by financial actors.

Sustainability is here approached through a real-life situation, and understood as a social and institutional construct around issues which have been the object of negotiations and have led to institutional arrangements in order to allow the project to be carried through. Arrangements between the actors involved in ‘the voice of sustainability’ also result from negotiations that have taken place over time and have related to territorial questions.

This article presents some responses to the forms of sustainability produced by finance, and does so on two levels. On a conceptual level, the framework developed in the first section and applied in the second makes it possible to describe and understand relationships between financialization and sustainability in urban contexts, which have rarely been tackled in the urban geography literature. Particularly because of its very pragmatic conception of sustainability, the territorial approach allows us to show how financial actors at the interface of logics on the real and financial markets behave in particular projects, and how they play a part in the construction of sustainability; this is supported by identification of institutional relationships as they are built up by the different actors involved throughout the project.

At the case-study level, various lessons can be learned, albeit bearing in mind that these should not be taken as universally valid. The case of the Sihlcity megaproject can be viewed as a successful outcome of the linkages made between financialization and sustainability through a compromise relating to a reduction in car traffic, known as the *Fahrtenmodell*, which has been institutionalized and subsequently applied to other urban projects in Zurich. Knowledge of the territorial context and the characteristics of the project made it easy for Crédit Suisse to buy Sihlcity, as did establishing a territorial sustainability compromise involving four types of local actors, which then went forward in a local financialized channel of investment.

It would appear that the relations between the actors who raised the sustainability issues, the economic actors and finally the financial investors form a sequence of bilateral relations, even though no multilateral discussion, debates or negotiations took place. The *Fahrtenmodell* was built up step by step around the central actor — Karl Steiner, the developer — during the project development phase, and around the investor — Crédit Suisse — during the construction phase, and its creation owed a great deal to compartmentalization between actors and to distinct time sequences.

At the outset, the crucial negotiations around the construction of sustainability were between the City of Zurich, Karl Steiner and then the ATE. Only later did negotiations between Karl Steiner and Crédit Suisse take over, and the measures linked to the *Fahrtenmodell* find expression in economic and financial terms. In this context, Crédit Suisse played a very particular role. It acted first as developer, taking on the risk of the project and finalizing the occupation of its leasable areas. Secondly, it acted as an economic entrepreneur, ensuring Sihlcity’s economic profitability by improving services and guaranteeing that Sihlcity would be promoted by the affiliated management company. Thirdly, Crédit Suisse was a financial actor, mobilizing its principal investment funds.

So the case of Sihlcity shows that there is a clear dissociation in time between the qualitative aspects that are crucial for sustainability — handled at the outset by the public sector actors, the developer and the ATE — and the quantitative aspects of financial risk and returns that came into play at the very end of the process, by which time everything had been defined from a qualitative point of view.

Within a territorial approach, our analytical framework was developed for application to three other urban megaprojects in Switzerland. However, it may be useful in examining the production of sustainability by finance in other urban contexts, with other institutional and cultural forms framing the negotiations. The forms of sustainability produced may be different according to the actors involved and the relationships they construct. The role played by other types of financial actors (e.g. direct investment or private equity funds) or by international financial actors in the production of urban sustainability should be examined in this framework.

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## Résumé

*Aujourd'hui, la financiarisation et l'urbanisme durable sont deux composantes majeures de la production urbaine et de la transformation du paysage des villes occidentales. L'objectif de l'article est de montrer comment l'intervention d'acteurs financiers influence la durabilité urbaine lors de la construction de mégaprojets à partir de la construction d'un cadre conceptuel, analytique et interprétatif. Ce dernier vise, d'une part, à examiner en situation la manière dont la durabilité a été produite par les différents acteurs impliqués, et d'autre part à situer ces interactions dans leur contexte institutionnel, spatial et temporel. La durabilité est par conséquent entendue comme une construction sociale ayant fait l'objet de négociations qui ont débouché sur un arrangement institutionnel pour que le projet puisse se réaliser. Ce cadre a été construit à partir de travaux en géographie de la finance et en géographie urbaine sur 'finance, ville et durabilité' et de l'étude de cas. Cette dernière porte sur la revitalisation d'une friche industrielle en un complexe commercial et de loisirs qui a été le plus grand de Suisse acheté par des acteurs financiers.*