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The Political Economy of Transit Value Capture: the Changing Business Model of the MTRC in Hong Kong

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Abstract

The mechanism of land value capture (LVC) for financing urban transport, which supports the cost of transit infrastructure through the revenues of land and property, has generated a substantial body of research. However, the literature on transit-related LVC has paid little attention to the politics and strategies of value capture. This article intends to shift the focus towards the governance of LVC, based on the case study of the Mass Transit Railway Corporation (MTRC) in Hong Kong. It argues that the evolving balance of power within Hong Kong's growth coalition has entailed a transformation of the MTRC's business model, prompting the transit agency to shift from the development of new real estate projects to the management of existing property assets. This work provides empirical evidence of an emerging 'management-based' value capture strategy, which is adapted to steady or slow growing urban contexts.

Introduction

Hong Kong's railway network is regarded as one of the most efficient and profitable systems in the world. This success is attributed to the *land value capture* (LVC) strategy developed by its operating company, the MTRC, which consists in recouping transportation costs from gains in land value. Unlike the rail companies in Europe and America that were privatised during the 1980s, the MTRC has managed to keep its world-class train service and notorious cheap fares after the opening of its capital in 2000 (Loo and Comtois, 2015). Therefore, Hong Kong's experience of LVC is promoted as a model for developing countries seeking to pursue sustainable urbanisation (Suzuki et al., 2015; Bon, 2015; Musil, 2018; De Jong et al., 2010).

Empirical studies on transit LVC have primarily focused on the economic relationship between transport accessibility and property values (Smith and Gihring, 2006). A strand of literature has nevertheless analysed the institutional drivers explaining the success of value capture instruments. These authors have found that pro-active government action and close coordination in policy-making were prerequisites for achievement. In particular, clear rules regarding the sharing of benefits, costs and risks among stakeholders are regarded as crucial elements for success (Medda, 2012). However, little attention has been paid to the way these coordination structures take place, how they evolve over time, and how they relate to the wider environment of urban policy and politics. This paper intends to offer a political economy perspective by looking at power relationships that the LVC structure sets in motion within urban governance, drawing on the growth coalition framework developed by Logan and Molotch (1987). The case of Hong Kong is particularly well suited to this approach given both the exemplary nature of the MTRC's value capture model and a local dynamic driven by land-based elites. We argue that the evolving balance of power within the growth coalition has entailed a shift in the business model of the MTRC, from the development of new real estate projects to the management of existing property assets. This points to the emergence of a new "management-based" value capture strategy, which is adapted to steady or slow growing urban contexts.

The paper is divided into three parts: Part 1 combines two bodies of literature, on value capture and growth coalitions, to establish an analytical framework that aims at embedding the LVC mechanism within urban politics. Part 2 then examines the conditions contributing towards the success of the MTRC's business model in Hong Kong, whilst Part 3 analyses its transformation in the context of the changing balances of power at the heart of the growth coalition.

Transport finance, LVC and Urban Governance

The shift in the underlying rationale of transit financing by land value capture

According to Smolka's definition (2013: 8), LVC aims at "the recovery by the public of the land value increments (unearned income) generated by actions other than the land-owner's direct investments". Transit-related LVC involves a variety of capture techniques, but one can classify them into two broad categories: *tax or fee-based instruments* and *development-based instruments* (Suzuki et al., 2013).

The underlying rationale of tax and fee-based instruments stems from the ground rent theory. Drawing on Ricardo's thought, John Stuart Mill was the first to recommend the recovery of capital gains from urbanisation by levying a tax on landlords who "grow richer, as it were in their sleep, without working, risking, or economizing" (Mill, [1848] 2001: 941). This approach, popularized in the United States by Henri George, led to the establishment of infrastructure-based taxes levied on properties along new transit corridors. A well-known example is the tax collected by the Los Angeles Metro in "special assessment districts" nearby stations along the Red line (Stopher, 1993). Also levied in specific areas, the Tax Increment Financing (TIF) enables local authorities to borrow against its revenues for the financing of new transit-based urban projects. It has been a popular tool in the US (291 TIF districts in 51 cities in 2007 according to Medda, 2012); after receiving a "trans-Atlantic conversion" (Squires and Lord, 2012), it has become one of the funding channels of the London Crossrail project. Tax and fee-based instruments, however, have been adopted in very few countries, and generally cover a minor portion of the total cost of infrastructure (Chapman, 2017). They have provided mixed results, mainly due to: 1) difficulties of defining the boundaries of designed areas for LVC taxation, and perception of unequal treatment by property owners (Medda, 2012); 2) increasing voter reluctance to pay higher taxes (Alterman, 2012); and 3) high administrative costs of land value assessments (Dye and England, 2009).

Therefore, alternative strategies of value capture through joint development projects have gained growing popularity (Cervero et al. 1992). These development-based LVC instruments are defined by Robert Cervero as follows: "any formal, legally binding arrangement between a public entity and a private individual or organization that involves either private-sector payments to the public entity or private-sector sharing of capital or operating costs, in mutual recognition of the enhanced real estate development potential or higher land values created by the siting of a public transit facility" (Cervero, 1994: 82).

By contrast to tax and fee-based tools that rely on ideological objectives —capturing “unearned increments” by property owners— joint-development projects have a more pragmatic purpose of generating revenues (Alterman, 2012). In addition to the improvement in transport accessibility, significant benefits can be generated from increases in building rights and expected economic outcomes of the new development projects (Suzuki et al., 2013). Transit Oriented Developments (TODs) may be included in this category if the transit agency has a stake in the real estate development (Bernick and Cervero, 1997; Dittmar and Ohland, 2012).

Although joint developments are seen in many countries, empirical studies on these funding experiments tend to focus on North America and Asia. Zhao et al. (2012) assessed the efficiency of joint developments in the United States and in some East Asian countries based on a common set of criteria. They conclude that joint developments are, in general, economically efficient although they involve higher costs of transaction, but can be socially and spatially regressive depending on the local context. In the United States, however, this funding method is not used at full capacity due to regulatory and political obstacles. According to a survey conducted in the early 1990s, joint developments contributed to less than 1% of yearly capital expenditure for rail infrastructure in most US cities (Landis et al., 1991). Recurrent real estate crises in the United States have also discouraged the use of joint developments for transit funding due to risk considerations by financial institutions (Enoch et al. 2005).

Sharon and Shewmake (2012) contend that East Asian cities are likely to generate greater potential value to capture than North American and European urban contexts, owing to their high population densities, rapid urbanisation, and dependency to public transport. Yet, as they argue, joint development requires a high level of coordination between public and private bodies, a feature that they found mainly in Japan, Hong Kong and Singapore. This statement may explain the weak development of transit-related LVC in China so far. According to a survey conducted by Martin De Jong et al. (2010) in five large Chinese metropolitan areas, the development of the subway networks have faced several difficulties in the initial period, resulting in the withdrawal of the transit operator in some cases. Public-private partnerships often involve state-owned enterprises as both parties (transit agency and property developer), which does not encourage the establishment of clear procedures to ensure transparency and accountability. However, the authors stress a substantial regional difference, with big east-coast cities showing much higher management standards and more successful operating conditions than their inland counterparts. Another factor of the initial difficulties faced by Chinese metro companies was the emphasis put on car transport by municipal policies, before road traffic congestion prompted them to switch to transit priority strategies (Li et al. 2013).

Private-public partnerships and growth coalition dynamics

As shown by the above findings, the success of joint transit development projects strongly relies on local political and economic support. However, as pointed out by Mathur and Smith (2013), the distribution of wealth of these developments differs substantially depending on whether priority is given to the needs of the community or to the ‘highest and best use’ of space. It is commonly acknowledged that urban governance regimes have experienced a

neoliberal shift from collective solutions to market-based choices (see especially: Brenner and Theodore, 2002), and share a common tendency to focus on local economic growth. To enhance the competitiveness of cities in a globalizing economy, urban policy-makers increasingly make use of large-scale development projects (Orueta and Fainstein, 2008), which can be seen as major pathways to attract financial investment and establish “exceptionality measures” in planning and policy procedures, favoring business elites (Swyngedouw et al., 2002).

In this regard, the “urban growth coalition” thesis (Molotch, 1976; Logan and Molotch, 1987) provides a valuable contribution to grasp value capture strategies for financing transport through property development projects. This thesis builds on the premise that political and economic urban elites regard the commodification of place as a generator of wealth, and align their interests to create profit through expansionary land development projects.

A significant body of research has provided empirical evidence supporting Logan and Molotch’s assumption in North American cities (Logan et al., 1997). While this framework has proven less suitable to European urban contexts (Wood, 2004, Jessop et al. 1999), it fell on fertile ground in East Asia. This is hardly surprising in a region where “developmental states” have traditionally partnered with big businesses (White, 1988), and strongly encouraged capital accumulation in property (Haila, 2000; Fujita, 2011; Wu, 2015; Theurillat, 2016).

The growth coalition thesis has been regarded as a good fit for urban politics in Japan (Broadbent, 1989), but even more so in Asian countries/regions where the State has vested interests in land markets as a (quasi-)exclusive landowner. In the case of Hong Kong, the regime of public land tenure established under British colonial rule, and maintained after the handover to China, has forged close relationships between the executive authority and the local business lobbies (Ng, 2006). Under this system, the government owns the freehold of virtually all the land of the Hong Kong Special Administrative Region, and leases it to the public (Hui et al. 2006). Land parcels are generally leased for terms of 50 years at a premium (land-use right), and subject to a property tax (the “rates”) equivalent to 3 percent of the rental value of the property. Overall, the income from land and related tax amounts to a large share of the regional budget (ranging from one third to one half depending on the year), which creates a strong bias towards of a “high-land price policy” (Hong and Lam, 1998). In the absence of universal suffrage, socio-professional constituencies, which are indirectly elected and based on specific professions, enjoy considerable power in the unicameral parliamentary legislature, the Legislative Council (LegCo). They notably include property tycoons, who head the most powerful family real estate groups (Poon, 2010). This situation has led the executive authority and the business lobbies to develop oligopolies in the real estate sector as a way to foster local economic growth (Hong and Lam, 1998). In such a context, the growth coalition framework is regarded as particularly useful to grasp the underlying logic of Hong Kong’s urban governance (Smart and Lin, 2004; Chiu and Lui, 2009). Yung and Chan contend that the government coalesces with developers to “mutually benefit by increasing property prices as a ‘unitary interest’ to sustain the local economy and maintain a stable political environment” (Yung and Chan, 2016: 186).

Hong Kong’s land regime served as inspiration to China during its transition to a market economy. China’s public lease system, however, is embedded in a distinctive institutional

setting that confers overwhelming power to the State. This has not prevented the formation of growth coalitions between local governments and big developers. Hence Logan and Molotch's thesis has also been quite influential in China, though the US-based framework had to be modified to fit the Chinese context (for a review see Jiang et al., 2016).

Bringing the transit operator into the growth coalition: framework and methodology

Despite the relevance of the growth coalition thesis in various institutional contexts, it is worth noting that the transit operator is generally not paid consideration (but see Mboumoua, 2015). Utility providers are considered as auxiliary players, similar to the media or the chamber of commerce, although their influence in contemporary 'urban capitalisms' is being increasingly recognized (Lorrain, 2005).

In the scholarship of growth coalitions, the actors of the dominant power bloc may differ according to the urban context, but three key players generally exist: (1) local business elites, especially those involved in the property sector and real estate financing; (2) elected local officials; and (3) the government, primarily at the local level.

Yet if we place transit-oriented joint development projects into the framework of pro-growth governance regimes, it becomes clear that these projects may play a key role in a city's competitiveness. The increased accessibility and visibility resulting from the transit infrastructure, connections to other transport networks, and the significant magnitude of real estate operations linked to the development of transit corridors, all represent potential drivers for increases in land values and local growth. Therefore, approaching value capture strategies through an agency-based reading, coupled with an analysis of the production and management of built-up spaces may contribute to understanding better the institutional dynamics of efficient LVC mechanisms.

As outlined by Sharon and Shewmake (2012), East Asia is particularly prone to development-based mechanisms of value capture transit. It must be noted, however, that in the case of Japan and Hong Kong, land value is being captured on a particularly large scale. In Japan, private railway groups have diversified their business across a wide range of property sectors along their railroads (developments in the residential, office, retail and leisure sectors). They also operate the facilities in most cases (Aveline, 2003; Song and Shoji, 2016). These value capture strategies go back to the turn of the 20th century, when street cars started disappearing in the United States as automobile transport developed (Cervero, 1998). The railway groups created transit-oriented "garden cities" (Watanabe and Cherry, 1980), followed by 'satellite towns' (Sorensen, 2001; Cervero, 2010) and 'rail integrated communities' (Calimente, 2012) in the suburbs of Tokyo and Osaka.

The rail transit system in Hong Kong was inspired by Japan's experience and produced a less diverse and station-centric version called "Rail+Property"; hereafter referred to as R+P (Cervero and Murakami, 2009; Murakami, 2012). Due to restrictions in construction across the major part of Hong Kong's territory (75% of non-built-up land), the MTRC's networks do not serve the whole Special Administrative Region (SAR), but form the backbone of a multi-modal transport system structured along highly populated and densely constructed built-up

corridors (Fig.1). The MTRC has played a prominent role in the urbanisation of these corridors through its land value capture strategy, and as such has been involved at an early stage in the local growth coalition. However, the balance of power in a coalition cannot be expected to remain unchanged over several decades. It is consequently important to observe the evolving relations between the members of the elite group to assess the change in the way the LVC mechanism is handled over time.

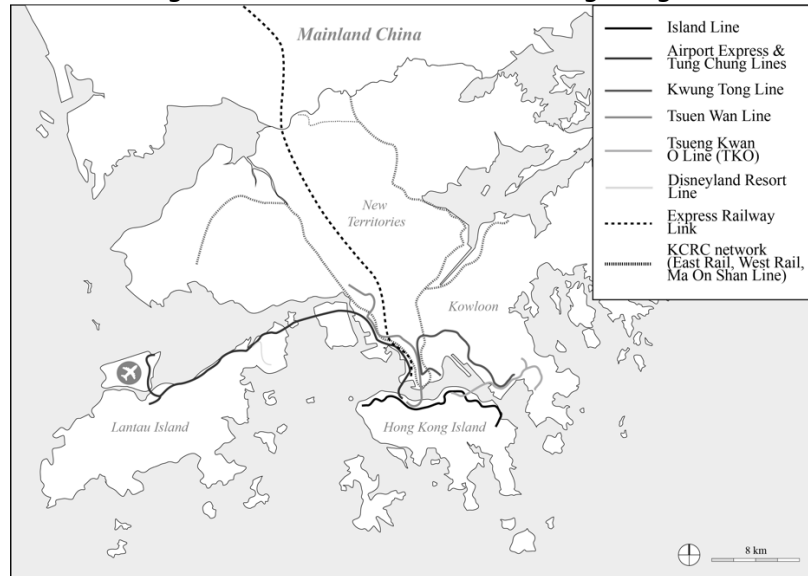
There are three key actors in the Hong Kong coalition: (1) the MTRC, which holds four main functions: railway construction and operation, property development, property investment and management outside the stations, and commercial business within the stations; (2) the government of the Hong Kong SAR, which receives a large share of its income from public land ownership and related taxes; and (3) the business sector, family real estate groups in particular, which control the majority of Hong Kong's urban production and gain revenue streams from their real estate holdings (Poon, 2010).

To grasp the evolving strategies of these three categories of actors, we relied on a thorough review of the academic publications, MTRC's annual reports, policy documents, newspaper articles, and consultancy reports. This empirical material was complemented by fifteen in-depth and semi-structured interviews with major stakeholders of Hong Kong's transit system, i.e. the Hong Kong SAR, the Hong Kong Legislative Council, the Professional Commons (a public policy think-tank on urban planning), the Hong Kong real estate industry, and the Shenzhen Metro Group. Drawing on our interviews, we have reconstituted the historical narrative of the role and prerogatives of the MTRC, and traced their recent change through the prism of the growth machine. The results of the case-study are presented in the following sections.

The expansion of development-led LVC in Hong Kong

The MTRC was established in 1975 as a "statutory company" and expected to operate without public subsidies. Its first two lines connected the manufacturing centre of the time, namely Tsim Sha Shui, with the new towns located in the New Territories and East Kowloon (Fig. 1). Despite receiving international loans to finance the construction of these railroads, its traffic revenues were insufficient to balance its budget due to fierce competition from private bus companies (Tang and Lo, 2008). Faced with a significant operating deficit, the MTRC obtained its first development rights from the government along its network in 1986, hoping to increase its traffic revenues (Yeung, 2008). It received land grants at "pre-rail" site values, with exclusive rights to develop the land above and adjacent to its stations; these developments were then sold at market prices to real estate developers after servicing. The company also negotiated with developers for a share of assets in kind, in the form of income-producing properties, thereby limiting its vulnerability to real estate cycles through stable revenue streams (Cervero and Murakami, 2009).

Fig. 1. The transit network in Hong Kong



Source: the authors

These deals resulted in the development of housing complexes above or in the vicinity of the stations. Initially implemented sporadically across the two existing networks, the R+P mechanism came to be mobilized systematically for all stations as of 1985, with the construction of a new line on Hong Kong island (the Island Line), which would become a new centre of economic activity (McCarthy, 1996).

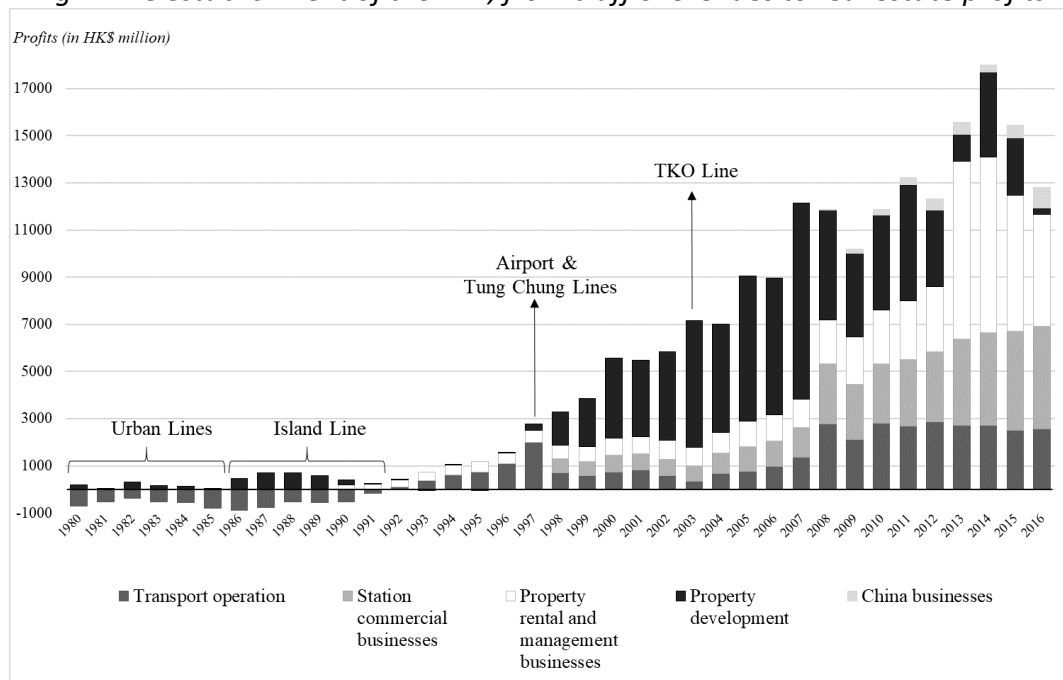
Thanks to a spectacular increase in land values between 1984 and 1997 (with prices multiplying 8 times)¹ the MTRC was able to break even on its balance sheet as early as 1988 (Fig.2). After exhausting the available land space along the Island Line, the company began constructing a second generation of railway lines. In particular, when Kai Tak airport was moved to Lantau Island, the company applied R+P throughout its new Airport Line, increasing the building density of real estate operations and developing new commercial spaces (shopping malls, offices, hotels) which are among the biggest in the city.

R+P at the heart of the capital accumulation regime

The Rail and Property (R+P) mechanism thrived in the property boom of 1984 to 1997, which in turn it contributed to (Hong and Lam, 1998). The real estate industry further escalated with China's open door policy, and the subsequent relocation of Hong Kong's manufacturing activities to the Mainland, primarily in the Pearl River Delta (Yeh, 1997). Hong Kong became a regional financial center, and the real estate industry came to occupy a dominant position in the growth coalition, alongside the financial industry (Jessop and Sum, 2000). Under the influence of the new power bloc, Hong Kong's built-up environment became a focal point of capital accumulation (Haila, 2000; Smart and Lee, 2003). The process of Hong Kong's handover back to China strongly contributed to the real estate boom. By establishing strict control over public land supply during the period 1985-1997, the Sino-British Declaration signed in 1984 created a shortage of land, while encouraging investment in property markets through the commitment to pursue Hong Kong's "capitalist system and lifestyle" until 2047.

¹ http://www.rvd.gov.hk/en/property_market_statistics/ (checked on 03/07/2018).

Fig.2. The establishment of the R+P, from traffic revenues to real estate profits



Source: The authors, based on Yeung, 2008 (1980-2001); MTRC annual reports (2002-2016)

The big property groups took advantage of the hollowing out of Hong Kong’s manufacturing sector and the liberation of British large-scale parcels of industrial land, to seize control of strategic sites for urban renewal projects (Tang et al., 2004). At the same time, the R+P system offered them a golden opportunity to expand their control over the territory through new development operations. Since the MTRC’s land tenders were awarded to bidders on the basis of financial health, the big property groups were able to eliminate smaller competitors and, thanks to R+P, to establish close ties with key players in the administration. As a result, they were able to expedite procedures and exert their influence over future metropolitan projects.

The MTRC’s real estate projects were configured as “podiums”, a generic building form including an esplanade and a shopping centre covering the metro station, with high-rise housing and office towers at its summit. These podium complexes have been designed as key urban nodes, attracting some of the most emblematic projects of Hong Kong’s transformation into a regional financial centre (Tiry, 2003).

A convergence of interests between the MTRC and the government

R+P has been mutually beneficial to both the MTRC and the government, as it has provided the material basis needed to run a global city without requiring investment in and manage of a capital-intensive infrastructure. Rather than burdening public financing, R+P has helped raise the government’s revenue by selling land premia to the MTRC, and has also increased revenue from rates and property taxes across the whole territory (Cervero and Murakami, 2009). Further indirect benefits have been associated with the development of a highly compact, transit-oriented type of urbanization, which has allowed the containment of urban sprawl, traffic congestion, automobile pollution and fossil fuel consumption.

These benefits have earned rail transit tremendous support from the State, despite its laissez-faire political stance (Tang and Lo, 2008; Tang, 2009). In 1979, four years after the creation of the MTRC, the government worked to halve the number of bus lines which followed the same routes as the company's network. It also forced the bus companies to align their fares with those of rail transit. Bus transportation was then limited to a restricted geographical area and redirected to the MTRC's stations. Furthermore, the MTRC was the only company authorized to cross stretches of water, a strategic advantage in an archipelago territory (Lau, 1997; Leung et al., 2017).

In addition to this supportive modal policy, the MTRC was granted a large degree of autonomy. The LegCo had control over its financial reports, fares, government guarantees and funds. But it had no actual decision-making powers. In principle, the MTRC's activities were under the responsibility of the government, which appointed its chief executive, allocated its land through the Land Department and assessed the financial feasibility of its projects (Yeung, 2008). However, the government's control was not strict, and the company was free to set its own fares. The MTRC also came to assume prerogatives that were beyond its official jurisdiction, such as negotiating the terms and conditions for the development of the spaces above and around its stations, and proposing what land should be developed to the government (interview 03, member of the Hong Kong Legislative Council; interview 09, property development manager of the Cheong Kong group). In other words, it became a mediator between the State and private developers, arbitrating the awarding of contracts and setting rules for collaboration between stakeholders (Tang et al., 2004).

The MTRC's freedom reached its peak during the transfer of sovereignty, in 1997, when the competencies of the various State departments were no longer firmly defined (McCarthy, 1996). Hence the company managed to impose a higher building density than initially proposed by the government in some residential projects around new stations, such as the Tung Chung station (12,000 housing units) and Tsung Kwan O (3,000 housing units; Tang et al. 2004; MTRC, 2017).

The weakening of the MTRC's position and subsequent transformation of its business model

At the turn of the 21st century, Hong Kong experienced profound political and economic turmoil resulting from decolonisation, that would call into question the MTRC's position within the elite governing network.

Reconfiguration of power relations within the growth coalition

The transfer of sovereignty took place at the same time as the Asian financial crisis of 1997, which led to a real estate slump in Hong Kong. In face of a rising public deficit, the government undertook the privatization of large public facilities and the deregulation of some monopolistic sectors in public utilities. Hong Kong property groups took the opportunity to diversify their businesses —notably in telecommunications, energy, sea and bus transport— gradually becoming big conglomerates (Chiu and Lui, 2009). This resulted in a shift of power in favor of business elites within the growth coalition. In the field of land planning, the change

in the relationship became clear when the *List Application* came into force in 2004. This measure provided property developers with the possibility of acquiring land at their own initiative by submitting a list of sites for future development operations to the government.

As a provider of public transport, the MTRC was also affected by the privatization policy. In 2000, nearly a quarter of its capital (23%) was privatized through public flotation. At the same time, the process of political transition gave rise to the empowerment of Hong Kong's civil society (Ma, 2007). The MTRC became subject to scathing criticism and vigilant monitoring by NGOs and associations, in particular for its fare increases (a 3% increase above inflation between 2000 and 2005). Another reason for criticism was the MTRC's lack of participation in the provision of social housing, the residential areas within its podiums being primarily intended for wealthy customers (Lee et al., 2013). More generally, the concept of podiums came to represent everything that civil society rejected in the R+P model: high building density, a lack of community consensus in the design of projects, and a socially non-inclusive approach (interview 01, member of the Professional Commons). These criticisms resonated even more strongly when the developers allied with the civil society to end what they considered to be MTRC's undue privileges: its exclusive access to land grants for new transit developments. The real estate crisis of 1997 had caused tensions between property developers and the MTRC, which they now considered as just another competitor to obtaining land grants (interview 03, member of the Hong Kong Legislative Council).

Amid mounting pressure from both property developers and civil society, the government announced in November 2002 that it would halt all land offers for one year, and put all real estate programs launched by public and semi-public enterprises on hold. During this real estate slump, Governor C.H. Tung stated in his Policy Address that the objective was to "re-prioritize the provision of public services and give full play to the market forces".² This measure ushered in a new era, marked by a rift in the relationship between the State and the transit operator, which would eventually result in a systematic conflict with the government to unlock its land reserves, especially around the Tsuen Kwan O and the Disney Land lines.

The shift of the R+P to a management-based strategy

Relations between the government and the MTRC became increasingly arm's length and distant throughout the 2000s. In 2007, the government took the more radical step of merging the operating activities of MTRC with those of a smaller transit agency, the KTRC. Officially, the merger had three main goals: 1) to put an end to a long-lasting and unnecessary competition in the operation of Hong Kong's transit system; 2) to simplify and rationalize the management of the local railway networks (integration of fares, rotation of the rolling stock, etc.); and 3) to restructure KCRC's management and financial operations which had been in decline since 2000.³ However, the merger also turned out to be the starting point of a radical change in Hong Kong's model of financing transit, prompting MTRC to become a "pure" rail operator.

² <https://www.policyaddress.gov.hk/pa03/eng/>, (checked on 04/06/2018).

³ The KCRC was facing unbearable competition from cross-border bus companies. From 2002 to 2005, its revenues dropped by 80% (Yeung, 2008).

To revive the local economy, the government announced the launching of “Ten Major Infrastructure Projects” in the same year. These comprised of three railway lines: the West Island Line (WIL), the South Island Line (SIL), and the Sha Tin to Central Link (SCL). These railway projects, were later joined together by the Kowloon Tung Extension (KTE) and the Express Railway Link (XRL), and involved very ambitious capital spending. Their total cost was estimated at HK\$ 97 billion, exceeding the cost of the MTRC’s entire existing network (Musil, 2018: 11).

Such a huge expense could not be handled through R+P because it would have involved a tremendous amount of land grants to fill the funding gap for new rail construction. At the same time, the R+P system had come to lose public support, being criticized by property developers and civil movements. For these reasons, the government decided to develop an alternative financing mode known as ‘BOT’ (build-operate-transfer) to fund some of the new transit lines. In this system, the government assumes most the costs of infrastructure, of which it retains ownership,⁴ and entrusts the MTRC to maintain and operate the new lines for a 50-year period (interview 07, senior engineer XRL project; interview 08, engineer of Hong Kong Lands Department).⁵ Such a policy was made possible by the consolidation of public finances, partly due to substantial value earned from MTRC (the value creation to the government was estimated at \$136.1 billion by LegCo; in 2006).⁶

But there were additional reasons to establish the BOT system. In the case of the XRL expressway (the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link), the government wanted to keep ownership of the infrastructure due to the political issues involved in this cross-border cooperation. Another concern was to promote quality of life in a prime city area through new planning principles, seeking a lower building density as well as greater supply of public facilities and open space: principles that challenged the MTRC’s practices of value capture through the systematic podium-pattern of urban design (interview 04, project manager of the West Kowloon District).

Consequently, the intermediation role of the MTRC in the design of new urban projects has tended to disappear, leaving room for a direct negotiation between the government and developers (interview 05, senior manager of the Wheelock Properties group). Since 2007, the MTRC has been granted land for minor redevelopment projects, in enclave zones, that require its high skills and know-how in urban planning (interview 11, Specialist of transport at the Hong Kong Baptist University). Only the SIL and KTE lines have been financed through the R+P system, accounting for 11% of the total cost of the total railway projects undertaken over the same period. In the new strategic transit corridors where the main metropolitan projects and major tourist areas are being developed, the MTRC is operating as a conventional transit operator using the BOT approach, thereby leaving some 346 hectares of attached development land to Hong Kong’s property groups (interview 02, member of the research team of Jones Lang LaSalle).

⁴ The ownership was transferred to the KCRC. The BOT used for the new lines is, in fact, an expansion of the concession agreement concluded between the MTRC and the KCRC during the merger of the two companies.

⁵ The duration of the infrastructure maintenance contract is always shorter than the 50-year period of operation, generally around 15 years, depending on the contract.

⁶ <http://www.legco.gov.hk/yr05-06/english/panels/tp/papers/fatp0523cb1-1675-1e.pdf>, (checked in June 2018).

In response to the downsizing of its land development activity, the MTRC began reorganizing its business model around managing its vast number of property assets and operating associated services. Within its stations, it engaged in an active strategy to increase the income generated by retail and advertising spaces (both inside trains and stations), and launched profitable telecommunication services (installation of mobile phone networks to offer passenger access to Wi-Fi services); outside the stations, it continued to manage rental properties, mainly shopping malls and offices. As a result, its revenue streams has undergone a dramatic structural change. Although property development had accounted for the majority of its business since 2000, representing as much as 68% of its profits in 2007, it has gradually declined, eventually dropping to a meager 2% in 2016. In contrast, the MTRC has enjoyed exploding profits from its property rental and management businesses, from HK\$ 1.2 billion in 2007 to HK\$ 7.4 billion in 2014, amid a nearly three-fold increase in real estate values over this period. Likewise, MTRC's commercial businesses have experienced significant growth in profits due to an expansion of station shops and other commercial services such as advertising and communication. It is noteworthy that the profits from transport operations also significantly increased after 2007, owing to higher passenger numbers and increasing cross-border traffic after the merger with the KCRC.

The fact that sustained property development activity was maintained until 2015 can be attributed to the building rights that the MTRC has held with respect to ongoing long-term projects (including Lohas Park, whose sale is phased to last until 2020) and sites obtained during the merger with the KCRC (7 projects totaling over 1.2 million square meters for residential and commercial use, to be completed by 2022).⁷ The depletion of its land reserves has posed a problem for the MTRC, which began to face increasing difficulties in getting new development contracts.

In this context, the MTRC attempted to export its R+P model to Mainland China, but has met with fierce competition from domestic players. Currently, the company is operating three subway lines in China (in Beijing, Hangzhou and Shenzhen), yet Line 4 in Shenzhen is the only one conforming to the R+P model. Although the MTRC was initially granted the right to develop 2.9 million m² of real estate along Line 4 (De Jong et al., 2010: 308), it has actually built 89,400 m² on a single site named Tiara.⁸ In the meantime, the Shenzhen local government has established its own transit agency, the Shenzhen Metro Group, which has embraced the R+P model to finance its rapidly expanding subway network. MTRC's Line 4 would have been merged with the Shenzhen municipal network had it not been safeguarded by negotiations at high political and administrative levels (interview 10, Shenzhen Metro Company). Outside China, the MTRC has also been commissioned to build and run express lines in the United Kingdom, Sweden and Australia, but here again its role is limited to railway operations. It therefore seems likely that the MTRC will be forced to focus on railway traffic operations —both in and out the Hong Kong SAR— while pursuing the management of its income-producing properties and the operation of commercial businesses in its stations.

⁷Legislative Council, (2006), Follow-up to joint meeting on 23 May 2006: details of the property package, CB(1)1675/05-06(01), 123p. [online] <http://www.legco.gov.hk/yr05-06/english/panels/tp/papers/fatp0523cb1-1675-1e.pdf>.

⁸ <https://www.mtr.com.hk/en/corporate/consultancy/tiara.html>, (checked on 15/06/2018).

Conclusion

This case-study provides empirical evidence of the growing importance of a new major transit value capture mechanism derived from a development-based approach, referred to as a 'management-based' model. The paper explains the emergence of this model in Hong Kong by a reconfiguration of power relations in favour of property developers, within the local growth coalition. It thus brings a long-term perspective to the analysis of LVC's institutional dynamics, while also highlighting the primary role that a transit operator may play in a growth machine.

The outstanding efficiency of the R+P model can be attributed to Hong Kong's unique conditions, characterized by four main elements: 1) a large ridership, due to a very high demographic density and supportive public policies restricting urban development to the major railway transport corridors; 2) a regime of public ownership allowing a large amount of exclusive land to be supplied to the MTRC at below-market price; 3) the dramatic growth of real estate values over the whole operational period of R+P, except for a few short-lived episodes of recession/stagnation; and 4) well-established procedures and a skilled transit agency with considerable experience in urban planning and integrated railway-property development.

The initial development-based value capture strategy served as a crucial instrument to ensure a long-term trend of rising property values led by a land-centered growth coalition. It worked well as the MTRC was viewed as the State's transit corridor production arm. Having progressively attained a position as a mediator between the government and real estate players, the MTRC has even been able to perform certain State functions when necessary, and to increase its profits considerably through tacit agreements with LegCo, which focused on the interests of stakeholders within the growth machine. This balance was shattered when the MTRC's capital was opened up to third parties in 2000. As a "private" actor, the transit agency came to be viewed by property developers as just another potential competitor in receiving land grants. The MTRC also became accountable to the general public (which benefits from the account transparency obligations of listed companies) for its actions and fares. Moreover, the MTRC's change in status took place within a completely new political and economic context, marked by structural factors such as the scalar reorganization of the State (i.e. the shift towards cross-border urban governance with Mainland China); the transformation of Hong Kong's real estate groups into powerful, diversified conglomerates; and the empowerment of civil society.

As the MTRC's grip on land and real estate development has loosened, it has readjusted its value capture strategy to a management-based model, focusing on its income-producing properties accumulated over time. This approach converges with that of Japanese private railway companies, although the underlying factors are different. In Japan, urban shrinkage is gaining the outskirts of major metropolitan areas due to population ageing and strong public incentives to increase building density in core zones. Railway companies have thus tended to abandon the development of residential and recreational projects in peripheral areas, to shift towards high-rise mixed real estate projects, in or around major railway stations, as a way to produce regular revenue streams (Aveline-Dubach, 2015).

From the perspective of the growth coalition, the policy implications of a management-based approach seem relatively small compared to a development-based one. In Hong Kong, the new MTRC's value capture strategy is better aligned with the interests of the developers and with the new type of urbanization promoted by the government. It should also serve the interests of the general public as long as transport services and related fares are kept at satisfactory levels. The risk that transport service quality becomes neglected as a side-business is mitigated by the strong interdependence between R+P: railway operation plays a crucial role in maintaining the value of the leased spaces in and around the dedicated infrastructure network.

Owing to the stable income it generates, the management-based model can contribute to the maintenance and/or the improvement of the railway infrastructure on a regular, long-term basis. Therefore, it is particularly fit for "mature" cities having already expanded transit networks with no (or low) prospects of future urban growth. However, to accrue built-up space over time requires a forward-looking strategy by the transit agency, along with supportive public policies. Therefore, in urbanizing cities where joint transit projects can be envisaged on a significant scale, Hong Kong's experience may be a valuable source of inspiration. It could encourage transit agencies to retain part of newly-built spaces as rental properties, in order to create long-term income streams as the pace of urbanization slows down. Such a strategy would particularly fit the conditions of Chinese cities, given that they present widespread land-based coalition dynamics and conditions similar to Hong Kong (i.e., high transit passenger numbers supported by public policies, public land ownership, and the potential for increasing in land values). Several Chinese subway companies are currently financing new lines through development-based value capture. It remains to be seen if the MTRC's management-based LVC model will expand to meet China's future urban challenges.

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