

Sustainable Transit Finance and Urbanism: Global Insights

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Almost all initiatives to create sustainable urban growth call for some form of Transit-Oriented Development (TOD). Compact, mixed-use development near rail stations and high-capacity bus corridors can yield substantial societal benefits yet can be expensive and often lies far down transit agencies' priority lists.

Many funding sources have been used to finance TOD, including direct fees, debt, credit assistance, equity, and grants from governments and philanthropic sources. The fairest, most efficient approach embodies beneficiary principles – i.e., property developers, businesses, employers and residents financially contribute in line with the benefits they enjoy from improved transit services and enhanced access. Linking transit finance to property markets generates revenue not only to pay for infrastructure but also the armature – civic squares, streetscape enhancements, sidewalk improvements – needed to create attractive, inclusive neighborhoods around stations.

Land Value Capture

Land Value Capture (LVC) returns a portion of the increased property values resulting from publicly funded infrastructure. There are two general forms: fee-based (property taxes, benefit levies, tax increment finance) and development-based – mainly, public-private partnerships involving the sale or lease of development rights (on, above, or below ground) and co-development.

Development-based instruments have proven most successful at generating income and spawning TOD. They also have equity appeal. Why let a handful of real estate speculators reap the windfalls created by public investments? Returning part of the value-created to retire transit construction bonds can moderate land speculation, thus reducing displacements of working class households and small businesses. Controlling land around stations, moreover, increases the odds that major trip generators and transit-oriented land uses – such as retail plazas and office towers – occupy strategically important land parcels, increasing ridership and farebox returns.

Asian Experiences

Experiences in Hong Kong and Tokyo show that sharing in the land value increases from transit investments not only allows for sustainable finance but also sustainable urbanism. Both are dense, congested settings where a high premium is placed on accessibility and the institutional

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capacity exists to administer the program. Through its Rail+Property (R+P) program, Hong Kong's transit operator, MTR, sales long-term development rights on company-owned land and air space to not only generate income to retire capital bonds and finance operations but also to create market demand that ensures high ridership. Hong Kong's program is not about off-loading costs to the private sector but rather "co-development" – development in which each sector brings its natural advantages to the table (e.g., land in the case of transit owners and access to equity capital in the case of private investors). From 2000 to 2012, property development produced 38% of MTR's corporate income, related businesses (such as commercial and property leases) 28%, and transit operations 34%.

Timing is crucial to R+P's success. MTR purchases development rights from the local government at a "before rail" price and sells these rights to a selected developer (among a list of qualified bidders) at an "after rail" price. The difference in land values with and without rail services in a transit-dependent, land-constrained setting like Hong Kong is enormous, more than covering the cost of railway investments.

Hong Kong's success partly lies in MTR's institutional composition. As a quasi-private company, owned partly by local government but also private investors, MTR reflects the mixed quasi-public good nature of public transit – benefits redound to both private interests and the public at large. This has instilled an ethos of entrepreneurialism and public consciousness in the organization. MTR sells equity shares on the Hong Kong stock market, thus it is accountable to shareholders. However local government is the majority shareholder, ensuring the company weighs broader public interests.

Hong Kong has long had tall towers perched above railway stations. Often missing was a high-quality pedestrian environment and sense of place. In 2000, MTR create a town planning division within the organization to prepare and implement TOD plans that emphasize amenities and attractive walkable areas around stations. MTR also consciously built high-quality, mixed-use R+P on greenfields en route to the international airport as well as brownfields served by central-city rail extensions. Recent R+P projects that functionally and architecturally blend with surrounding communities have outperformed earlier projects in terms of ridership and real-estate market returns.

Tokyo has historically practiced transit value capture on an even grander scale, granting development franchises to railway companies that bundle new town and railway investments, cashing in on the construction, retail, and household service opportunities created by these investments. Railway companies purchase land parcels from private landholders (on the open market, prior to rail expansion or even the announcement of plans, to keep prices low). A key instrument has been land consolidation/readjustment that combines small, often irregular and unserved parcels, returning smaller but serviced parcels to land owners and retaining portions to cover costs of infrastructure, including roads and transit.

Transfer Payments and Fee-Based Initiatives

Transfer payments and fee assessments are another option for financing transit and TOD. Brazilian cities regulate land markets to generate revenues and regenerate urban districts. Sao Paulo restricts densities and sales Floor Area Ratios (FARs) to property developers near metrorail stops. Curitiba's newly built Green Line used the sale of development rights to convert a national, commercial-strip highway to a transit-oriented urban avenue. Density-sales revenues partly funded the investment costs.

In France, the responsibility for financing transit falls principally on employers under the logic that they benefit from the enlargement of labor markets afforded by high-quality public transport. An employer tax, Versement Transport, is paid by all companies with more than 9 employees in cities with 10,000 or more inhabitants, historically amounting to 1% to 2% of company payrolls. Employers must also reimburse 50% of the cost of monthly public transport passes for their employees. Brazil's Vale Transporte program similarly relies on employer contributions to transit finance. Critics claim such programs distort labor markets and place firms at a competitive disadvantage in the global marketplace.

Special assessments that pass on charges to businesses and land owners have been used to finance subway investments in Los Angeles, Bus Rapid Transit in Bogota, and tramways in Portland, Oregon, among other places. Around 20% of the capital costs of Portland's downtown streetcar was paid by special assessments. Since 1981, San Francisco has levied a Transit Impact Development Fee (TIDF) against new downtown office buildings. Broward County, Florida's Transit Oriented Concurrency ordinance levies a fixed fee on new development, covering around 30% of annual bus-transit operating and capital costs. Such fee-based programs only work in economically vibrant settings.

A more controversial form of transit and TOD finance is Tax Increment Financing (TIF). TIFs funnel incremental increases in property-tax revenues back into a district to finance infrastructure and housing. Because they cross-subsidize development, they have fallen out of political favor in some areas, including California. Pennsylvania uses Transit Revitalization Investment Districts (TRIDs) to regenerate distressed areas. In the UK, local authorities borrow funds to build transit infrastructure and repay loans from the increase in local tax revenues generated by new economic activity. Transport for London's massive "Crossrail" project imposes an incremental tax on business rates premised on London-area businesses benefiting from high-quality public transport, be it in the form of improved access of workers, customers, and part-suppliers or land capitalization.

Transferring Experiences

American cities and transit agencies have been rather tepid in applying development-based approaches to transit finance. The absence of statutory reforms and enabling legislation is partly responsible. Many US transit authorities, moreover, view real estate co-development as outside their domain of responsibility, best left to private market forces.

In order to ensure value capture revenues are used to promote broader social goals, it is essential that redistributive mechanisms be introduced to direct income not only to retire capital bonds on rail capital but also to build inclusive communities, including below market-rate housing. In truth, value capture works best in robust local real-estate markets with a large pent-up demand for accessible, transit-served development. Such development often thrives along radial rail networks that deliver workers to good-paying jobs in urban centers, usually not the places with the greatest need for urban regeneration or affordable housing. It is thus essential that regional mechanisms be in place for redistributing value capture revenues from well-to-do districts to areas of need. These need not be near rail stations. To insure mixed-income, inclusive communities take form, some value-capture income should be directed to building below-market-rate housing, affordable to working class households. Combining programs like transferable development rights (TDR) with density bonuses (or cap-and-trade programs that sell FAR development rights, as in Sao Paulo, Brazil) would allow proportionally higher densities to be stacked up around rail stations, with potentially higher agglomeration benefit as well as capitalization effects. This is but one way to generate higher increments of income that can be redirected, at least in part, toward affordable housing production and other social programs. Effectively a regional form of revenue-sharing of value-capture proceeds is needed.

I close with two final points. One is that there be station-area plans to guide project-based joint development and value capture schemes to ensure that parcel-by-parcel “deals” add up to form functional, coherent, inclusive, and livable transit districts. The atomized nature of value capture schemes requires that a master station-area plan be in place to guide development – spatially and temporally – to create well-designed and complete TODs. Second, while transit value capture usually focuses on metrorail systems, often bus-based transit is a more cost-effective option in many parts of America and abroad, due both to population densities that cannot support expensive rail networks as well as the fact many moderate-income employment opportunities are spread across metropolises, requiring flexible systems like bus transit. Pilot programs for leveraging TOD and recapturing value along Bus Rapid Transit (BRT) corridors, especially those serving traditionally marginalized neighborhoods, deserve strong consideration in regions like Southern California and the San Francisco Bay Area.