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 – but also 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 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.

One notable recent joint development project is the West Dublin BART station. Key was BART's ownership of several parcels (former parking lots) near the station (along with the California Infrastructure Financing Act of 1996 that allowed public entities to generate income from ancillary development). Through its real-estate development division, BART ground-leased a 3-acre parcel to a group of private developers for 99 years for a one-time payment of $15 million. A covenant gave BART a percentage of every sale of residential unit, tying the agency's development income to the amount of development (i.e., number of residential units and sales price). The armature needed for a successful TOD (public amenities, cycling infrastructure), guided by a Transit Village Plan, depended crucially on value-capture income.

The Denver region also stands out for embracing land-based value capture for leveraging TOD. Through a public-private collaboration, a $15 million fund has been collateralized and put to land purchases. The Urban Land Conservancy receives funds at a 3.5% interest rate, then strategically acquires land and buildings within one-half mile of planned or existing fixed rail stops, holds the property up to 5 years, and creates disposition agreements with partner developers. The developers put together projects, often using Low Income Tax Credit (LIHTC) financing. Since its 2010 launch, the fund has been credited with leveraging nearly $200 million in TOD, made up of 8 properties and the preservation or creation of over 600 affordable units. ULC has paid off some past loans, replenishing the revolving fund for additional investment.