

**FACING THE ENVIRONMENTAL CHALLENGE**

**INNOVATIVE METHODS OF FINANCING PUBLIC TRANSPORTATION**

**Dave Wetzel**

The income from fares is usually insufficient to pay for both the capital costs and operating expenses of a modern mass transit system.

Public transportation managers strive to provide safe, efficient, affordable, reliable, comfortable, clean, and convenient journeys for passengers. The service provided not only enables millions of people to travel but also has wider economic, social, and environmental impacts on urban life.

When planning for new public transportation investments, wider economic benefits are usually cited as an important reason for governments to provide subsidies towards the costs of construction and maintenance.

Apart from people who use public transportation systems, international studies over many years have shown that there is an additional beneficiary who plays no direct part in contributing to transportation financing, but who gains a disproportionate share of the economic benefits arising from building and operating rail and bus lines.

Don Riley, a London property developer, has written a book *Taken for a Ride* in which he explores the impacts of the construction of the Jubilee Line Extension (JLE) Underground train line in London.

Don Riley visited the construction site in the mid-1990s and has since commented how these men digging the tunnel were sweating hard, risking their lives, not knowing where their next job was coming from, while at the same time he, himself, was making money while he slept as his adjacent property holdings considerably appreciated in value when the JLE became a reality.

This understanding of the land market inspired Don Riley to calculate the total land value increase that arose within a radius of only 1,000 yards of each of the new JLE stations. His startling conclusion is that these land values have increased by 13 billion British pounds (US\$22.8 billion), while the construction costs of the JLE were 3.5 billion British pounds (US\$6.1 billion). Don Riley suggests that some of this wealth should have been collected by the government in order to fund the project. An independent study carried out for Transport for London estimated that between 1992 and 2002, near two of the 11 new stations, Southwark and Canary Wharf, the JLE caused land values to rise by 2.8 billion British pounds (US\$4.9 billion). This means that the UK government could have built the JLE at no cost to the public treasury if they had just chosen to collect less than one-third of the increased land values arising from the new transit line. Instead, with the exception of two modest private sector contributions, the funding for the JLE came from the government's budget, drawing from income taxes and other traditional revenue sources.

It is no fault of the public transportation industry that governments choose to ignore private windfall property value gains generated by public investment. However, the findings of Don Riley and others mean that no longer should transportation planners go hat in hand to governments for subsidies to fund new projects or maintain and renew existing lines. As long as large numbers of people are riding the trains, then we now know that in addition to revenue from fares, the railway can generate its own finances from the increased land values.

If governments continue to only tax wages, trade, or goods and services to create new transportation opportunities, then they are choosing to give an unearned bonus to the owners of land and buildings.

If a government refuses permission to build new transportation improvements due to inadequate budget revenues, and the public officials do not want to increase existing taxes, then they are not only denying citizens travel opportunities. In addition, ironically, they are denying property owners the opportunity to share in rising values that will arise if the improvements are at least partly financed from the increase in property values.

In other words, financing new and improved transportation infrastructure from rising property values creates a virtuous economic cycle that provides a win-win situation for all stakeholders, including the private property owners who directly provide some of the funding. Assuming the project requires even 50 percent of the property value increases, property owners retain 50 percent of a large gain if the improvements are completed — rather than 100 percent of no increase if the transportation investments are not made at all.

How can governments collect this hidden subsidy that goes to certain very fortunate property owners, some of whom were already extremely wealthy? Denmark already collects a land tax for local expenditure. All the land is valued each year and a percentage tax applied. In Hong Kong a modest income tax is supplemented with substantial revenues from government land leases. In parts of North America, South Africa, Australia, and New Zealand property taxes contribute directly to public funds.

Of course transportation infrastructure is not the only factor raising property values. Population and employment growth, greater commercial productivity, higher incomes, good quality public and private services, and many other factors all contribute to the value of individual sites. Similarly, nature provides mineral deposits (oil, gold, diamonds, and even coal), fertile fields, beautiful views of rivers, lakes, seas, and the countryside — all of which can translate into higher land values.

A Location Benefit Levy can be applied to all sites which would be valued annually for their rental income based on their optimum permitted use, ignoring all building improvements. A tax rate could then be applied to this land value in order to produce an income for public funds. As the land value rises, so does the sum collected. This means, for example, that an empty site in a town or city center with permission to develop for an office building would pay the tax at the same rate as an identical site next door which already has a similar size office building developed. Unlike taxes on buildings, there would be no reduction in the estimated land value or amount of taxes owed for a deteriorated structure or for keeping the site empty. Similarly, there would be no increased tax liability for constructing or improving a building on the site.

## **Reduced Urban Sprawl**

If a Location Benefit Levy were introduced, several benefits would begin to flow.

Not only is such a tax inexpensive to administer and collect, it is also quite difficult to avoid (land can not be moved to another jurisdiction or concealed like other forms of property, valuables, and money). More importantly, there would be an immediate incentive for landowners to improve their land and build upon it. Environmentally damaged brownfield sites would be cleaned up and used for homes, jobs, or public open spaces. Housing would become more affordable through increased supply, and whole neighborhoods could be revitalized. Urban regeneration would be in the best interests of landowners, especially in areas that have lost major industries.

With more sites available in towns and cities, small and medium sized enterprises (SMEs) would have lower lease costs and thus be able to expand their business or start new ones. More jobs would be created, claims for unemployment payments would be reduced, and the economy would grow faster.

With housing more affordable in towns and cities the urge for workers to move long distances from their work in order to purchase a less expensive house would be avoided. Urban sprawl into the countryside, encroaching into green belts, agricultural land, and open space would be diminished. Public

transportation agencies would avoid the additional costs of building facilities and expanding services for suburban and exurban commuters.

Families would benefit as workers could spend more quality time at home rather than commuting for several hours daily.

With less urban sprawl not only would green spaces be saved but society would avoid the substantial expense of building new infrastructure and extending service delivery.

Compact, high-density towns and cities operate much more efficiently, and open space is released for better planning, perhaps following Sir Ebenezer Howard's Garden City model.

### **'The Smart Tax'**

Another reason why some people call the Location Benefit Levy "The Smart Tax" is because although land values generally increase due to proximity to transportation improvements, values can also decline on sites adjacent to the railway lines because of excessive noise, pollution, unsightly views, environmental and health hazards, harsh smells, safety and security threats, and other physical and social intrusions. With the Location Benefit Levy there would be no need for disadvantaged landowners to apply for compensation, as with the next annual revaluation of all sites, their land values and corresponding tax contributions will be reduced.

Fred Harrison, the Director of the Land Research Trust has demonstrated in his new book *Wheels of Fortune* how the careful recording of land value changes over time can provide a very useful urban planning tool. When new mass transit is being planned the existing historical records of land value changes can be used to determine which route will provide the largest land value increases. There may be perfectly valid reasons for choosing an alternative route, but at least this decision can be taken with a clear indication of the total value that the community investment will generate through each potential transit alignment.

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