Making public transport pay for itself

A submission to the Senate Inquiry into the investment of Commonwealth and State funds in public passenger transport infrastructure and services

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Abstract

*The benefit of public transport is manifested as **uplifts in land values** in the serviced locations. The alleged difficulty of funding public transport is an illusion that arises because governments, at the insistence of misguided property owners, refuse to claw back a sufficient fraction of the benefit to meet the cost. The outcome is fewer public transport projects, hence fewer uplifts in land values, so that property owners are the biggest losers.*

1. The Great Tax Clawback

I landed at Dover after a choppy crossing of the Channel in 1962, and for the next 40 years I paid my taxes to Her Majesty's Treasury. ... I did not dodge my obligations to the public purse. After all, I was married, raising two children and using the public services; so I was happy to pay my share of the costs of the schools and hospitals that my family needed.

Then, as the millennium was dawning, a miracle happened. ... Taxpayers generously funded the extension to the Jubilee Line, one of London's Underground lines. Two of the stations were located close to office properties that I own. Those two stations raised the value of my properties by more than all the taxes that I had paid into the public's coffers over the previous 40 years.

A nice windfall for this colonial boy.

So wrote Don Riley in his foreword to Fred Harrison's *Wheels of Fortune* [1]. Earlier, in his own book [2], Riley quantified the total uplift in land values caused by the Jubilee Line Extension. Taking five of the ten underground stations as a sample, and drawing on available valuations and sales records, Riley estimated the average increase in land values per unit area within 400 yards of each station, then between 400 and 800 yards from each station, and then between 800 and 1000 yards from each station, converted the averages to totals, added the results, and extended them to the other stations. He concluded that the railway, which cost the taxpayers £3.5 billion, had increased land values by a conservative £13 billion. If 27% of that uplift in land values had been reclaimed through the tax system, leaving the other 73% for the lucky property owners, the Jubilee Extension could have paid for itself without burdening any other taxpayers.

Riley could not help noticing that if property owners were obliged to give back a sufficient fraction of their unearned windfalls to pay for the public projects that caused them, more such projects would proceed, so that property owners would get more windfalls. But property owners prefer to keep all their unearned windfalls for themselves.

As a successful property investor himself, Riley found himself embarrassed not only by the immorality of his fellow investors' position, but also by its stupidity. If property owners, through uplifts in land values, claw back a multiple of government expenditure on infrastructure, why shouldn't the government, through taxation, claw back a mere fraction of the uplifts in land values in order to finance the expenditure?

2. Location, location...

The benefit of a public transport project can be measured only by the price that people are willing to pay for it, and whatever part of that price is *not* paid in fares is paid for access to *locations* serviced by the project. In other words, the benefit (net of fares) is manifested as uplifts in *land values* — not values of buildings, which are limited by construction costs, but values of land, because land has a location (and therefore a **locational value**) even if no buildings stand on it.

Therefore if the benefit of a public transport project exceeds the cost, whatever part of the cost is not offset by fares can be covered by taking back a sufficient fraction of the uplift in land values, *without burdening taxpayers who do not share in the benefit*.

More generally, the **cost-benefit ratio** of a project is the **cost-uplift ratio**. If a government, through the tax system, claws back a fraction of all real uplifts in land values, any project whose cost-benefit ratio equals that fraction is self-funding, and any project with a *lower* cost-benefit ratio is *more* than self-funding, yielding net revenue that can be used for (e.g.) cutting other taxes or paying off debt. Meanwhile, the remaining fraction of the uplifts is a net windfall to property owners.

This is *not* a scheme for raising taxes in order to pay for infrastructure. It is a change in the tax base (which in itself can be revenue-neutral) so that *future* investment in infrastructure pays for itself by expanding the tax *base* without any further changes in tax rates or thresholds. If, in the initial change in the tax mix, the new or increased taxes are levied solely on *subsequent* uplifts in land values — exempting present values — the change can be introduced *without leaving a single property owner worse off*.

3. The proper role of fares

The two components of the price of access to public transport are inversely related: the more we pay for *actual use* of it, through fares, the less we will be willing or able to pay for the mere *opportunity* to use it, through rents and prices of real estate in the serviced locations. The clear implication is that *fares reduce property values*.

Economic theory tells us that the utilization of public transport will be socially optimal if fares are set at marginal cost. If this is done, and if the *average* cost

exceeds the marginal cost (as tends to be the case with infrastructure), then the difference must be funded from some other source. The logical source, as we have seen, is the uplift in land values.

4. The trouble with Public-Private Partnerships (PPPs)

Because private providers of public transport infrastructure have little or no ability to tap the resulting uplifts in land values, they attempt to amortize their capital costs entirely from fares. So the fares are high, causing low utilization, which in turn may prevent recovery of fixed costs, so that the providers have to be rescued by the taxpayers. Low utilization defeats the purpose of the infrastructure, while public subsidies, guarantees and bail-outs defeat the alleged purpose of private finance.

A particularly futile attempt to recover fixed costs from fares is the "build, own, operate & transfer" ("**BOOT**") scheme, in which the asset reverts to public ownership after a certain "investment term", so that the private investors have only a limited time in which to reap their returns. This arrangement not only requires inflated fares, which worsen the underutilization problem, but also gives the private owner an incentive to run down the asset before transferring ownership. Moreover, it involves an *internal contradiction*: that public ownership is a bad thing now, but a good thing after the expiry of a more or less arbitrary "investment term". But, as with all other PPPs, the basic reason why BOOT projects fail is that the investors cannot reclaim uplifts in land values in the serviced areas.

5. Implementation

There are two simple methods by which a State government could reclaim a significant fraction of uplifts in land values, while ensuring that property owners cannot lose in the operation of the new system or in the transition from the old system to the new. The two methods can be used together.

The first method is to replace all *recurrent* property taxes, including land tax and any special-purpose charges that fall on property owners *per se*, with a single recurrent tax on land values, the tax-free threshold for each property being chosen so that, in the transition from the old system to the new, there is no increase in total recurrent property taxes payable in respect of that property. Under this arrangement, your tax bill does not increase unless your land value does, and your land value does not increase unless, in the judgment of the market, you are better off in spite of the tax implication. The need to pay tax on unrealized gains can be avoided through appropriate tax-deferment provisions.

The second method is to replace all property *transfer* taxes and rezoning taxes, including stamp duties, betterment levies and development levies, with a single transfer tax apportioned to the increase in the land value since the last transfer, with the proviso that if the property was acquired under the old system, the seller shall have the option of paying tax as if the property had been sold and bought back on the last day of operation of that system. Under this arrangement, if you pay more tax than you would have paid under a continuation of the old system, you do so solely because your land value has

increased since the new system was introduced; and again the increase outweighs the tax effect.

By judicious use of the conditional grants power (s.96 of the Constitution), the Commonwealth can pressure the States to implement such reforms.

6. Conclusion

Any public transport project that is economically justifiable can be funded out of the uplift in land values caused by the project. Calculations purporting to show that a particular project is "uneconomic" or "unviable" are invalid unless they account for uplifts in land values.

If a certain fraction of all real uplifts in land values is reclaimed by taxation, every public transport project with a cost/benefit ratio not exceeding that fraction becomes self-funding or revenue-positive, but still delivers net windfalls to the affected property owners. The owners gain because they receive uplifts in land values from projects that would not otherwise proceed. Such an arrangement can be put in place without increasing anyone's tax burden in the transition from the old system to the new.

In short, there is no excuse — fiscal or political — for poor public transport.

References

[1] Fred Harrison, *Wheels of Fortune: Self-funding Infrastructure and the Free Market Case for a Land Tax* (London: Institute of Economic Affairs, 2006).

[2] Don Riley, *Taken for a Ride: Trains, Taxpayers and the Treasury* (Teddington, Middx: Centre for Land Policy Studies, 2001). Riley's credits his main argument to William Vickrey, winner of the 1996 Nobel Prize in Economics; see Vickrey's contributions in K.C. Wenzer (ed.), *Land-Value Taxation: The Equitable and Efficient Source of Public Finance* (New York: M.E. Sharpe, 2000).