Summary of the Caveat for research report RR552 – Metropolitan rail: external benefits and optimal funding

The caveat outlined the approach the research author's adopted. The researchers proposed a two-step process for determining the level of public funding for metropolitan rail, namely:

1. ensuring prices are "economically" efficient with fare setting based on the marginal cost of additional usage

2. that positive externalities arising from rail usage justify additional subsidisation to reduce fares below marginal cost

Based on the above two-step approach the research provides estimates of both marginal costs of metropolitan rail services and the positive externalities of rail usage, based on cost information and transport modelling from two regions.

The caveat's author (the author) details two concerns or reservations with the approach adopted by the researchers:

1. In terms of determining economically efficient prices the researchers suggest that the marginal cost approach should be adopted rather than an average cost approach. There is a long history (from 1890) of the controversy about using marginal cost or average cost (see for example the article by Fruschmann and Hogendorn, Journal of Economic Perspectives, Winter 2015, p193-206). To support this the author quoted Duffy (article: "The marginal cost controversy in intellectual property", University of Chicago Law Review, 2004, 71, 37-56) which summarised the dominant approach and concluded:

   > *"In short, modern public utility theorists generally do not recommend using the pervasive public subsidies to chase the Holy grail of global marginal cost pricing."*

   Based on this, the author considered that, in deciding the efficient fare, it would have been crucial to determine the rail fare elasticity of demand. The report authors seem to suggest that if average pricing is adopted then a substantial number of rail users would switch modes. However, no evidence is provided to substantiate whether this proposition is correct.

2. In terms of determining the cost of the spillovers/externality effects, the author noted that the research should have addressed the cross elasticity of demand. If the cross elasticity of demand is low then mode switching is likely to be low and this raises the issue of whether subsidies are necessary. This is an important matter that should have been discussed in the research. The author also noted reservations with the way the positive externalities were calculated, as it is unrealistic to assume that the road network and land use would have developed in the current form if there was no rail network.