Fare discounts

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The case for subsidising public transport

1. Correction of ‘market failure’: if PT operates under economies of scale, it makes sense to subsidise it, as higher demand will contribute to reduce costs.

   Sources of economies of scale:

   - high fixed cost (investment): relevant for infrastructure
   - not clear evidence in bus systems (constant returns to scale)
   - Δ demand → Δ frequency → lower waiting times & costs.

2. Reduce the negative externalities generated by car use (pollution, accidents, noise, congestion,…)

The first-best solution is to charge car users (road pricing). If it cannot be implemented, subsidising PT is a second-best choice.

The effects of fare subsidies on private car use depend on the value of the ‘cross-price elasticity of car demand with respect to public transport fare’: by how much does car demand use fall when public transport is 1% cheaper?

Empirical evidence shows very low values. Larger with respect to time.

3. Wider economic benefits & redistributive objectives

PT use may be income-regressive, but the tax system is a more efficient mechanism to redistribute income.

The case against

1. Subsidies may result in higher costs and lower productivity.

If transport operators know that their deficits are covered, they will put less effort in keeping costs under control & increasing productivity.

2. Subsidies are obtained from tax revenues, which has a social cost

- Tax collection administration (& subsidy distribution).
- Deadweight loss of taxation: lower incentives to work if taxed.
- Opportunity cost (Are PT subsidies the best use of public funds?)

3. Subsidies increase demand & may lead to extra capital investment.

John Preston (2008*)* Public Transport Subsidisation, in S. Ison and T. Rye (eds.) *The Implementation and Effectiveness of Transport Demand Management Measures*, Ashgate.

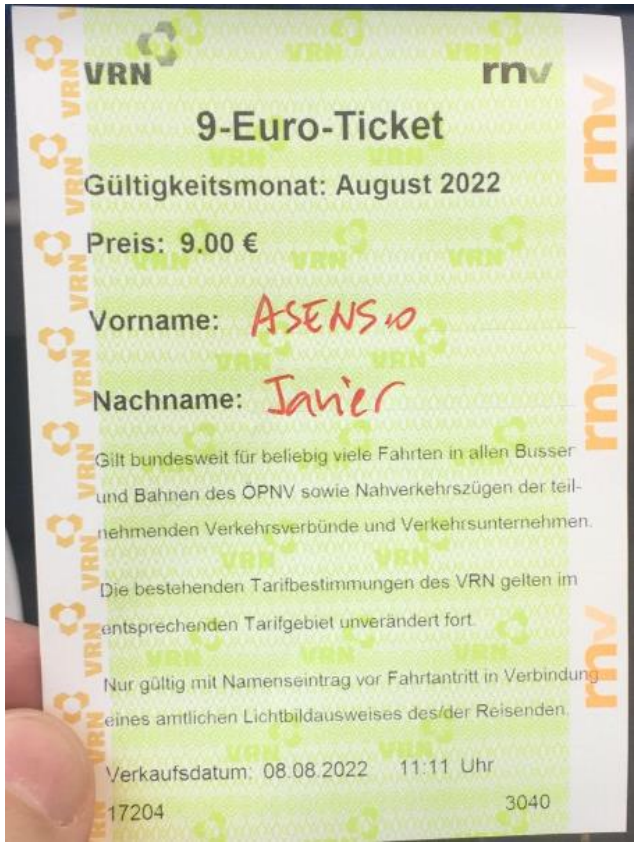
Modal choice elasticities in Barcelona

Due to a 1 per cent rise in	Percentage change in the probability of choosing		
	Car	Bus	Train
Car costs	−0.092	0.082	0.188
Bus costs	0.008	−0.210	0.051
Train costs	0.023	0.109	−0.091
Car in-vehicle time	−0.271	0.296	0.538
Bus in-vehicle time	0.021	−0.504	0.119
Train in-vehicle time	0.072	0.207	−0.239

Asensio, J. (2002) Transport mode choice by commuters to Barcelona's CBD, *Urban Studies*, 39 (10) 1881-1895

Germany's 9-Euro-Ticket

- 9€ monthly pass to all local public transport
- June, July & August 2002
- Too early to have complete impact assessment
- Gauss, Murray and Link (2023):
  - Longer trips by existing users
  - More mobility by low income families
  - No evidence of modal shift from car users
- Main problem: non-permanent discount.
- 49€ Deutschland-Ticket will be better?



D. Gauss, N. Murray, H. Link 9-Euro-Ticket: Niedrigere Preise allein stärken Alltagsmobilität mit öffentlichen Verkehrsmitteln nicht, *DIW Wochenbericht* 14+15, 2023

Fare subsidies in Spain (2022—June 2023)

- Government response to inflation surge and energy crisis in 2022
- Frequent-user cards on commuter and regional trains: 100%
- Up to 50% reduction in other local and regional PT tickets
- Long-distance bus services: 100%

- Cost: 380 million € in 2023 (+ regional governments).
- Uncertain time scope.
- Mixed with petrol discounts in 2022.
- No data to assess impact on private transport