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Innovative ways of funding public transport infrastructure in Sweden

Authors

M.Sc. Daniel SVANFELT
Trivector Traffic AB, Lund, Sweden
+46 46 38 65 47
daniel.svanfelt@trivector.se

Ph.D. Lena WINSLOTT HISELIUS
Traffic and Road, Dept of Technology and Society
Lund Institute of Technology, Lund University, Sweden /
Trivector Traffic AB, Lund, Sweden
+46 46 222 97 48
lena.hiselius@tft.lth.se

Abstract

In Sweden and in the Nordic countries there is a growing interest in public transport. In Sweden today the national railway investments are funded by the state to 100 %. Light rail and tramways are on the other hand at large financed by municipalities and public transport authorities. Since these bodies have a very limited financing capability, local investments are rarely feasible. This is the case even though these local investments may show a large socio-economic efficiency.

The aim of the current research project FODRAL is to highlight these questions and contribute to innovative financing solutions for light rail investments specially and local/regional public transport investments in general. A number of financing solutions are discussed and analysed.

Since the system of taxes is highly regulated in Sweden, special designated taxes such as Versement Transport in France or fuel taxes in Germany, are difficult to implement.

However, there is a growing interest in development levies capturing the value of land that may increase due to exploitation. For instance, a new railway tunnel in the city of Helsingborg would release land with a high exploitation value and by selling the rights to develop this area, the new infrastructure can be partially financed.

A local tax on property values has also been suggested by the Swedish government. The local tax would among other things capture financial benefits gained by land developers, including improved accessibility. Improved accessibility is often regarded as one of the benefits due to new infrastructure. In the case of light rail and tramways this is indeed a major benefit. The congestion charging scheme in Stockholm is also discussed as a source of funding necessary public transport improvements in the region.

More information about this project can be obtained from the project website at www.lightrail.se.

Aim, method, expected results

Trivector Traffic, together with sub-contractor Lange & Lange Marknadslänk, carries out a R&D project funded by the Swedish Governmental Agency for Innovation Systems (VINNOVA), named FODRAL. It is an acronym, short for "Organisation for financing and operation of regional light rail systems" deduced in Swedish. This project started in January, 2007, and is set to finish by the end of 2008.

In FODRAL we look into, illustrate and suggest changes to the organisational framework to be able to fund and operate light rail infrastructure, i.e. rail infrastructure which is not heavy rail. In Sweden, as well as in the other Nordic countries, there are no clear legislative and regulatory frameworks today on how to deal with such issues.

The aim of this study is to highlight these questions and contribute to innovative financing solutions for light rail investments specially and local/regional public transport investments in general. A number of financing/funding solutions are discussed and analysed.

A benchmark study has been carried out of organisational and financial issues in European countries with a positive development of public transport in general and light rail in particular. These are primarily France, Switzerland, Spain, the Netherlands and the UK. Also studies and comparisons with the other Nordic countries are made, since much of the challenges are the same across this region; much of the same issues are dealt with in the city regions of Bergen (Norway), Stavanger (Norway), Århus (Denmark) and Turku (Finland). In this manner challenges and solutions are discussed from Swedish, and Nordic, points of view and are related to foreign examples, mainly European ones.

The remainder of the time will now be spent upon digging into the Swedish legislative, fiscal and organisational frameworks to suggest changes and to highlight obstacles to implementing the required changes.

The project will bring the above stated issues out in the light, hopefully providing a better decision basis on future light rail solutions. Stakeholders at the regional and local levels can thereby concentrate on creating the optimal rail transport system with regards to customer satisfaction and overall efficiency rather than needing to negotiate and seek support for special funding agreements for every single project. This will help to establish common rules and regulations for all forms of rail-borne transport in Sweden.

Background

In Sweden, as well as in the rest of Europe, there is a growing interest in public transport. In Sweden today, the national railway investments are funded by the state to 100 %. The National Rail Administration (*Banverket*) is the national governmental agency responsible for rail

transport, and is also the infrastructure holder of all railways and is the one body that hands out the vast majority of funds for improving and developing the rail transport system.

Light rail and tramways are on the other hand at large financed by municipalities and public transport authorities. Since these bodies have a very limited financing capability, local investments are rarely feasible. This is the case even though these local investments may show a large socio-economic efficiency – in many cases much more favourable cost-benefit ratios than projected railway investments outside the metropolitan areas, which are favoured today by most decision-makers.

Stakeholders at the regional and local level, i.e. in the Swedish case on one hand the regional transport authorities, regions and counties; and on the other hand the municipalities, can apply for grants from Banverket to develop their systems. However there is very limited interest from the national authority to budget for local rail, despite the benefits that have been displayed. Hence, local and regional rail projects have been halted due to lack of funding.

The existing local and regional rail systems for public passenger transport are in the Stockholm region (the city of Stockholm and the adjacent municipalities), and in the cities of Göteborg and Norrköping. The latter are, by and large, tram systems, which have evolved continually into light rail and are now both systems with mixed separate right-of-way and street-running operation. The Stockholm network consists of a few lines feeding to the metro system, with the one exception of *Tvärbanan*, the newest light rail line opened in Stockholm and in Sweden (2000), which forms a semi-circular route outside the city centre. *Tvärbanan* increased the light rail network length of Stockholm from 18 km to 29 km, however Göteborg by far still has the largest network with 80 km.

The light rail network of all the three cities are planned to be developed and extended. In addition to this, several other cities and regions have started to lay out plans for new tramway, light rail, and/or Tram-Train systems. This include local and regional light rail lines in Malmö, Lund, Helsingborg, Jönköping, and local light rail lines in Linköping and Uppsala. All these cities have populations of 100 000 up to 300 000 inhabitants, and where regional services are considered, the passenger potential increases.

However, the funding, and consequently the organisation of light rail, is the main issue to be handled before any of these projects can be realised. The increased interest from local and regional stakeholders – public, private, and NGOs – for new high-quality public transport investments is far greater now than only a decade ago, perhaps spurred by successful light rail projects on the European continent. Thus there is a lack of funding and lack of an organizational structure to finance improvement schemes *at a larger scale than before*.

Benchmarking - Ways of funding public transport, foreign examples

Some thirty years ago the state had the responsibility for funding all new transport investments in almost every metropolitan area in Europe. Nowadays there is a variety of strategies in many of Europe's and the world's large urban areas. At the same time, the regions have gained much more responsibility for the funding and operation of transport facilities in a regional context, and more so a coordinative responsibility for local transport investments. The new, alternative ways of funding are often also designed to have an effect to reduce travel demand and/or to steer in favour of sustainable transport modes, whereby at the same time investments in sustainable transport modes such as light rail can be made possible. The background to all this is the challenges of congestion and environmental effects.

New financial solutions often tend to imply new distribution of responsibility between the national or state level, the regions, and the cities/municipalities in combination with the expanding of budget turnover through increased contribution from passengers and from corporations.

In for instance Germany, the decentralisation of responsibility for regional public transport also has induced the decentralisation of the sources of funding public transport. In Switzerland, there is a three-level governance method; the federal state, the canton, and the local/municipal. The federal state level has no influence on the planning of regional or local public transport.

In many European countries the responsibility for metropolitan rail systems has been transferred to the local or regional level and become incorporated into the local or regional authority. Federal countries like Germany and Switzerland were among the first to develop a regionalisation of responsibility for urban transport systems.

Ways of financing we have looked into are:

- Cross-financing (the profit from public companies is used to cover the deficit in the public transport)
- Local taxes or fees on real estate properties
- Fees on real estate developments (if the developer benefits from high-quality public transport)
- Selling off real estate (if land is owned by the public and sold to any developer, the price of the land becomes higher if, at the same time, high-quality public transport is established)
- Local taxes or fees on companies (like the French *Versement Transport*)
- Local taxes on fuels, income or sales
- Parking fees
- Congestion charges on road traffic
- Public-private partnership schemes
- Leverage (loans)
- Viable governmental programmes and funds (like the British *Transport Innovative Fund*)

Suggestions for financing and funding Swedish public transport infrastructure

The following means of funding public transport infrastructure (and to some degree operation) has been identified as possible, and suitable, to adapt in Sweden, in shorter or longer terms of time. (The lower on the list, the longer the time needed to implement necessary changes.)

- Public and private partnership schemes
- Allow leverage on more general terms
- Higher state grants for rail investments and development in general
- Higher amount or share of state grants to local and regional projects for regional and local stakeholders to apply for, to public transport improvement schemes
- Changes in the National Railway Administration's (*Banverket*) guidelines, allowing for grants to co-finance local and regional projects independently on the national railway planning process, which is based on four-year cycles

- A higher level, up to 75 %, of co-financing from the National Railway Administration, to promote light rail or other innovative transport systems to help to improve urban environment and relieve congestion
- A new national (state) fund or investment programme for infrastructure for sustainable urban and regional transportation, e.g. the British *TIF* model
- A classification/division of the national rail network into national rail and local/regional rail, providing the basis for a larger responsibility for planning, financing, maintaining and operating at the local and regional authorities, e.g. the “Swiss model”
- The public sector, in its role as real estate owners or planning, concession and regulative authority, being more active in collecting income from land value increases when high-quality public transport is established, as in examples from many European and North American cases, with *location benefit levies* and *impact fees*, and from the construction of a new railway tunnel in the city of Helsingborg, which will allow valuable land to be exploited
- Public (municipal and/or regional) and/or private companies created for the purpose of collecting income from utilities such as sales of land or real estate, and benefits from high-quality public transport, e.g. the model for financing the Copenhagen metro.
- Local and regional taxes on consumption, labour or income, dedicated to public transport, e.g. the French *Versement Transport* model or the German and US fuel tax supplements
- Income from parking fees dedicated for public transport
- Congestion charges and road tolls, with the surplus designated to public transport improvements, e.g. the London CC scheme, Norwegian *bompenge*, and the Stockholm CC trial.

Many of the foreign examples can be used with only slight changes in regulatory frameworks; however the future prospect of designated taxes requires constitutional changes, which will require two decisions in the national parliament – one before and one after a general election – and will thereby take some time to realise.

Strategies and measures to overcome obstacles and to implement changes

The remainder of the FODRAL project will be focusing on finding and highlighting obstacles and success factors, for implementing necessary and desired changes, to create a (or a few) coherent organisational and financial framework(s). This will be carried out during the second half of 2008.

This will form an input for the national scene of politics and for groundwork for discussion and decisions in the national parliament, the government, and in the concerned national governmental agencies and boards.