

Policy Transfer of Public Transport Funding Schemes – The Case of Norway

Workshop 7. Innovative Finance for Innovative Public Transport

Silvia Olsen^{*a} and Nils Fearnley^a

^a *Institute of Transport Economics, Oslo*

** Corresponding author: Institute of Transport Economics, Gaustadalleen 21, NO-0349 Oslo, Norway, +47 48 95 93 67, sjo@toi.no*

Presenting author: Ms Silvia Olsen, researcher at the Institute of Transport Economics, Norway, sjo@toi.no

Keywords:

Public Transport

Funding Measures

Acceptance

Barriers

Policy Transference

JEL codes:

R4

H1

H8

ABSTRACT

This paper assesses the circumstances under which the schemes and models of public transport funding in one country can be applied in another country. Acceptance and similarity are presented as key concepts when considering new PT funding measures. Norway is taken as an illustrative example in exploring the probability that a certain measure will be accepted, and what degree of similarity is necessary, if adopting new funding schemes from other countries is to be successful. Through this approach, we aim to explore how acceptance and similarity interact.

We conclude that although in principle it is possible to transfer the funding measures discussed in this paper to the Norwegian setting, they will all encounter different degrees of political and cultural accept. Combining measures by creating policy packages will enable policy makers to balance the weaknesses of one funding measure against the strengths of another. The mere content of a policy package is not the only factor influencing implementation barriers. The context in which the measures

are presented can also generate barriers, and thus there is reason to look more closely at the relationship between measure characteristics and context.

1. Introduction

Ensuring proper public financing mechanisms for public transport (PT) operations and investment is vital for the development of PT networks and for the sustainable development of urban areas. This motivates continuous improvements of PT funding systems and a quest for best practices.

Whether a PT funding measure should be implemented depends on multiple factors; economic efficiency, income opportunity, transaction costs, etc. We do however find that political and institutional underpinnings should also be taken into account, and this represents the point of departure for this paper. We argue that *acceptance* and *similarity* are key concepts when considering new PT funding measures. Acceptance refers to the cultural, political or institutional recognition of a measure, manifested through stakeholders, the parliamentary game or role division (OPTIC, 2011). Similarity refers to the circumstances under which the schemes and models of PT funding successfully used in one country can be applied in another.

The paper take Norway as an illustrative example in exploring to the probability that a certain measure will be accepted, and what degree of similarity is necessary, if adopting new funding schemes from other countries is to be successful. Through this approach, we aim to explore how acceptance and similarity interact. For example, while key characteristics of a certain funding measure may indicate a high degree of acceptance, the measure may still not be implemented due to a lack of similarity between the country(ies) where the measure has been successfully applied, and the country considering it. We therefore find it useful to assess measure characteristics as well as the context in which it is introduced.

The adoption of a wide range of funding schemes is considered. These include: various subsidy schemes for operation and investment; different loan schemes; tax schemes, including regional petrol tax, corporation tax, tax on employer paid parking, and (local) personal taxation. We also look at property development as a way of funding (in the form of land value capture solutions), and, finally, Public Private Partnerships (PPPs) and similar solutions.

After presenting the method and data applied, we first present policy transfer principles and consider how the advantages and disadvantages of funding schemes and the PT measures linked to them are distributed. Secondly, we describe the Norwegian PT funding system and discuss inherent possibilities and limitations. Thirdly, we outline different funding schemes. Finally, we discuss whether combining funding measures in policy packages can result in combinations that remedy the shortcomings of any one individual measure.

2. Method and data

Methodologically, our paper is based on a review of the literature, and interviews leading to Olsen et al. (2011). The literature reviewed include public documents such as Transport Plans and White Papers, which has provided us with relevant knowledge of the situation in Norway. Secondary literature has been used to outline international

schemes and models of PT funding. Qualitative, semi- structured interviews were conducted with senior administrators and staff at the municipal and county level in five Norwegian cities (Oslo, Bergen, Stavanger, Trondheim and Skien).

In assessing whether different schemes and models can be used in different countries, there is initially an element of comparison. However, strictly applying a comparative case analysis method is not appropriate here, since the funding schemes discussed, as well as countries, are different. This, in turn, means that it is difficult to determine whether some potential effect of a scheme might be due to the scheme itself or to country characteristics. Hence, we stick mainly to general tendencies.

3. Transferability and barriers

Transferring experiences from one country to another implies a process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another (Dolowitz and Marsh, 2000). The background is usually decision makers believing that solutions successfully applied in one setting will also work well in their own country/district (Rose, 1993).

Success factors and barriers, respectively, contribute to or hinder the implementation of a measure or a package of measures. Since different countries and different policy areas experience different success factors and barriers, a policy solution is normally not transferred directly. Instead, hybrid solutions occur, adjusted to the national context (Optic, 2011). Whether a funding scheme is transferable depends on whether it has sufficient acceptance politically and culturally and sufficient similarity, including legal and institutional factors, previous practices and geographic and demographic characteristics. It also requires sufficient resources, financially as well as cognitively.

In this paper, it is not possible to consider the Norwegian political system, as well as the political system in the country currently using the funding measure in question, in full scope or depth. We will merely point out significant differences observed in the analysis carried out in Olsen et al. (2011), in order to illustrate some of the main barriers to implementation.

Redistributive (e.g. taxation) and regulatory measures are more likely to encounter political and cultural barriers than distributive (e.g. earmarking) and constituent measures (Lowi, 1985, Ripley and Frankling, 1982). This is because redistributive measures (e.g. congestion charging) and regulatory measures (e.g. road traffic acts) are new expenses and/or new obligations on citizens. Distributive and constituent measures, on the other hand, represent a more principled transference of responsibilities and privileges, which the public will not directly relate to. On the other hand, these measures might encounter resistance from public organizations.

The group of actors from which public funding is obtained do not usually receive a public good proportional to the funding they supply. A PT project can have scattered or concentrated benefits for the population, and the cost of financing it may be spread over all or large parts of the population or focused on a specific group. Wilson (1980) and Winter (1991) have hence outlined four combinations of advantage and disadvantage distribution:

- **Majority Policy** (scattered advantages–scattered disadvantages), such as environmental tax measures to reduce CO₂ emissions in the transport sector

- **Entrepreneur Policy** (focused disadvantages–scattered advantages), such as corporation tax for a general upgrading of PT
- **Client Policy** (scattered disadvantages–focused advantages), such as road construction financed from the state budget
- **Interest Group Policy** (focused disadvantages–focused advantages), such as building bridges financed with high road toll collection

The relationship between the various policies is illustrated in the table below.

Table 1. Combinations of Advantages and Disadvantages Distribution

		Advantages	
		Scattered	Focused
Disadvantages		Majority Policy	Client Policy
	Scattered	Majority Policy	Client Policy
	Focused	Entrepreneur Policy	Interest Group Policy

The distribution of advantage and disadvantage impacts on the probability that a policy will be introduced.

The introduction of a **Majority Policy** is unlikely to stir up much public attention or enthusiasm, since no one group in the population has a strong incentive to advocate or oppose it. The introduction of an **Entrepreneur Policy** will motivate the group bearing the burden of financing to mobilize strongly against the policy, while no group will have strong incentives to advocate it. Consequently, the Entrepreneur Policy is least likely to be implemented. Conversely, the costs of a **Client Policy** are widely distributed, while the benefits will be apparent to a particular group. The Client Policy hence has the greatest likelihood of being implemented. The introduction of an **Interest Group Policy** can result in strong mobilization both for and against, with the outcome often depending on the relative strengths of each group.

4. The Norwegian Public Transport Funding System

The funding of PT has been subject to debate for years in Norway. While in the 1990s tight budgets were considered the most significant challenge, efficient use of public grants has received more emphasis in recent years. The actual means of PT funding have also been changing in Norway; government grant schemes have been introduced and revenues from road toll collection have been spent on PT – including operational costs. In this sense, the Norwegian PT funding scheme is not a static given, but a selection of instruments subject to continuous evaluation, adjustment and change.

The funding system established at national level comprises a joint framework of formal procedures and juridical provisions, while the practices carried out at county level differ as a result of different political constellations and initiatives. In the country as a whole, ticket revenues covered nearly 50 percent of PT operating costs and about 40 percent of total costs in 2012, as reported to Central Statistics Norway. Hence, various forms of

public subsidy, including incentive schemes and ring-fenced toll road revenues, cover about 60 percent of total PT costs.

Norwegian county authorities are responsible for local PT, including grants for both investment and operation, as determined and allocated in each county. The counties receive county taxes and state grants that are used, among other things, on PT. A number of Norwegian cities, including all the major cities, have a PT plan and financing package that differs in the share of state and county grants and road toll revenues. These packages are initiated locally through different political constellations and initiatives, but have to be approved by the Norwegian Parliament. Central government is responsible for all rail transport, for outlining national PT strategies and priorities through the *National Transport Plan*¹, and for managing the *Norwegian Incentive Scheme*².

The Incentive Scheme is a system of financial grants awarded by central government to cities adopting PT plans incorporating measures designed to reduce the growth in private car demand and to increase PT travel at the cost of car use. Eight Norwegian cities have currently signed a contract with the central government, granting them between 50 to 250 million NOK annually over a 4-year period. The incentive scheme has been criticized for awarding cities that have previously neglected public transport and punishing cities that have already established a well-functioning PT system. Consequently, it has been suggested that existing conditions in the cities should be emphasized in the agreements (Norheim et al., 2012). It has also been proposed that the central government should place greater emphasis in results, and less in plans. A further challenge, stated by some of the informants, is that while the incentive scheme currently enables the cities to upgrade the public transport system, there are no guarantees that they will have the funding to operate and maintain it 10 years from now.

Olsen et al. (2011) questioned whether today's Norwegian funding system ensures a good selection of PT projects, and whether each city receives funding in accordance with its individual needs. It is pointed out that the division of responsibility between the various levels of government affects how each actor considers its responsibility to fund PT, and the extent to which it maintains control over the grants given. The study shows that different cities have different challenges and different opportunities in the design of PT. This obviously relates to the size of each city and thus to the market and need for PT, but also to different traditions of car and PT use, different histories of toll collection, and different perceptions of opportunities to bring in more funding for PT. The city transport packages can generally be referred to as consensual solutions – a recognition that agreements and compromises are necessary if the desired tasks are to be carried out properly.

5. Alternative forms of funding

In this section, we broadly outline the international schemes and models of PT funding that we have found relevant in the Norwegian case, in the sense that these are not currently used in Norway but in countries with significant similarities. These include, firstly, various subsidy schemes for operation and investment; secondly, different

¹ See http://www.regjeringen.no/en/dep/sd/tema/nasjonalt_transportplan.html?id=12198

² In Norwegian "Belønningsordningen", see <http://www.regjeringen.no/en/dep/sd/selected-topics/kollektivtransport/belonningsordningen.html?id=426204>

solutions of loaning; and, thirdly, various tax schemes. We also assess property development as a way of funding. Finally, we look at PPPs and similar solutions. The presentation is based on Olsen et al. (2011).

Subsidies to PT operation can take several forms. An alternative to the Norwegian county grants system is the Swedish "Huvudmanna" model, where the county and municipalities share the grants in accordance with a predefined model based in part on the PT offered in each municipality, normally calculated through route timetables (WSP, 2010). An advantage of this arrangement is that it provides a clear link between the resources that councils and municipalities make available, and what the inhabitants of the municipality will gain. Among the challenges is that this arrangement does not necessarily contribute to fulfilling the main purpose, namely of increasing the PT share.

PT investments can be financed through bank **loans**. Both nationally and internationally there are public banks and financial institutions which finance investments in infrastructure. Favourable interest rates and conditions characterize these institutions, especially when the State government guarantees the loans.

Earmarked Taxes. A range of different fees and taxes earmarked for PT use has been applied in the financing of PT. Some of these are associated with car use, such as congestion charging (Stockholm), extra fuel taxation in a certain area (Germany), and taxation on company sponsored parking spaces (Nottingham). More unconventional forms of earmarked taxes have also been introduced. For example, the French extra payroll tax in cities with a rail or light rail service has been shown to reduce passenger revenues to a mere 17 percent in the regions and 35 percent in Paris (Bouf and Hensher, 2007). However, these same authors worry about the many adverse effects this *versement transport* tax has on, *inter alia*, labour costs and urban sprawl.

A property tax of the municipality, earmarked for collective action (used in New York, Detroit, Miami and Barcelona), is also a possibility.

The **gain in property values** derived from the construction of light rail or subway can be used in various ways to finance development. The sale of public property, which can make a major contribution, is a one-off income, however. Various forms of exploitation tax can provide a longer-term gain. These are similar to property tax, but are directed towards only those who derive financial benefit from the measure.

Public-Private Partnerships (PPPs) have been used in the road sector, but are now increasingly being used for PT investments, too, especially when it comes to light rail and metro. Several different models have been tested, adapted to local conditions and needs. The design, construction, operation and/or maintenance can be outsourced to private operators for a contractual period. The model has been successful in some places, while elsewhere the operator has experienced major problems. Increasingly, and partly due to the global financial downturn, PPP schemes have received considerable negative attention due to the fact that they tie up large future public budgets.

Private operation of public infrastructure in long-term contracts is also common and has been implemented successfully in several places. In some cases, adverse circumstances and adjustments have led to major problems. Public operation of privately owned infrastructure is rare, but it works in London. A good distribution of risk between a public authority and a private contractor can provide the right incentives for efficient operation without the great risk of failure that would backfire on the

government. However, this is difficult and requires careful planning. Transaction and monitoring costs have also to be taken into account.

6. Discussion

In this section, we will consider the probability that a PT funding measure will be implemented in Norway by assessing acceptance and similarity. Key questions include the type of financing solution in question, how the advantages and disadvantages are distributed, as well as whether the system bears sufficient resemblance to Norwegian conditions. Aspects of political and cultural acceptance are also relevant. Political acceptance may relate to various party political coalitions, while public acceptance might include attitudes to car use.

The concepts introduced in section 3 and the alternative forms of funding introduced in section 5 is applied in assessing the degree to which these forms of funding are transferable to the Norwegian setting presented in section 4. We also suggest additional measures that might partially remedy weaknesses of, or opposition to, these policies. In this way, the creation of a *policy package* is suggested as a strategy to improve the scheme's performance or acceptability. Policy Package will be used as a term for a clustering and integration of policy measures, linked to specific policy goals (OPTIC, 2011).

6.1 Majority Policies

PT operation subsidies like the Swedish "Huvudmanna" model, as well as publicly organized and/or subsidized bank loans can be labelled Majority Policies, since neither their advantages nor their disadvantages are particularly apparent to the public.

In Norway, the introduction of the "Huvudmanna" model would require establishment of new institutions and new routines, and might hence encounter resistance from public organizations. Since public transport is currently financed by the counties in Norway, the "Huvudmanna" model would imply committing municipalities to co-finance public transport. A cooperative organ for region and municipality interaction would also have to be established. A trial project has however been carried out in a few cities, granting city municipalities greater public transport responsibility.

Regular loans obtained in private banks are widely used in the counties, funding projects such as the building of schools. The informants did however not see increased loaning activity as a sustainable solution, and found the advantages of a potential loan subsidy marginal, with the current low interest rates.

Potential barriers PT Majority Policies are facing are lack of public attention as well as hesitant public organizations in general and municipal organizations in particular. The main remedial action with regard to public attention would therefore be to link Majority Policy measures to measures with more focused benefits; for example, a new public transport initiative, explicitly enabled by the municipal commitment. Public organizations, on the other hand, are held to be determined by the logic of appropriateness and some degree of path dependency (March and Olsen, 1989). The fact that these measures resemble previous methods applied might therefore help overcome organizational barriers as well as provide insight in the specific difficulties at hand.

6.2 Entrepreneur Policies

Most of the tax schemes presented in section 4 can be labelled Entrepreneur Policies. These include 1) congestion charging, 2) taxation on company-sponsored parking spaces, 3) extra fuel taxation in certain areas, and 4) extra payroll tax in some cities. The disadvantages of these measures are focused on certain groups (congestion car drivers, certain estate owners and employers), while the advantages are mainly distributed over all users of PT in the area (but indirectly also over the wider society, e.g. motorists through congestion relief and employers through conglomeration benefits).

These taxation measures, which have regulatory and redistributive features additionally emphasizing that they will meet political and cultural barriers, are known to varying degrees in Norway.

Earmarked fuel tax was recently proposed in the city of Trondheim, and a variant of the scheme has been implemented in Tromsø. To increase acceptance, the introduction of earmarked fuel tax could be combined with cheaper and/or more frequent PT.

Norwegian legislation allows congestion charging, although no city has introduced it yet. Informants in the Olsen et al. (2011) project indicated that designing the scheme more like a traditional road toll system would increase acceptance, and a few informants even suggested that staying away from the mere term “congestion charging” would make a difference.

Road toll collection is widely used in Norway, but usually not for financing PT investments. The wide use and relatively high acceptance of road toll collection may be linked to a long tradition for financing roads and bridges by toll collection, dating back to the 1920s (Lauridsen, 2007).

Taxation on company-sponsored parking and payroll tax earmarked for public transit are less known schemes in Norway, but actual collection of the tax will probably not differ from other types of tax collection. To increase acceptance, the introduction of an earmarked payroll tax could be introduced in an area where public transport is to be improved significantly, or it could be used as a bargaining chip by the authorities in an attractive area where many businesses want to establish. Deciding on whether to collect these taxes is ultimately a question of how Corporate social responsibility should be defined.

To sum up, scattered advantages and focused disadvantages seem to result in an inherent lack of political and cultural accept of these measures. While the informants had few complaints about the efficiency of these measures, they were generally considered “politically impossible”. Overcoming these barriers would most likely require a careful combination of Entrepreneur and other measures. Specifically, distributive elements would increase public acceptance.

6.3 Client Policies

Among the international schemes and models of PT funding not currently used in Norway, PPP can be described as predominantly a Client Policy. The disadvantages are usually scattered, while the advantages are focused.

How PPPs are combined, particularly with regard to the degree of user fees, will determine whether the scheme can be described as distributive (earmarked funding) or redistributive (financing through taxes). The use of PPPs also requires employer, e.g. state or region, competence, and it may therefore be necessary to create new public bodies to ensure adequate knowledge and expertise.

Norway has had three PPP road projects, and therefore has some knowledge of this type of scheme. Each project, however, will have its own challenges in regard to an appropriate distribution of tasks, responsibilities and risks. Projects can also be designed fairly similarly to the current practice and expertise in counties: Tenders and public funding are familiar schemes, while private funding and private income risk/use tax can be termed as new arrangements for counties.

The distributive and constituent elements of PPPs appear to pose the main challenges to broader use of PPPs in Norway, generating barriers in public organizations. In 2007, an evaluation of the three Norwegian PPP projects concluded that the effects were mainly positive (Eriksen et al., 2007). Administrative employees who functioned as informants in Olsen et al. (2011) expressed scepticism, however, questioning how private actors could manage tasks better than public actors, and emphasizing challenges of coordination. Overcoming these barriers seems to require a more significant political initiative.

6.4 Interest Group Policies

Earmarked property tax and exploitation charges can be characterized as Interest Group Policies, where both the advantages and disadvantages of the scheme are focused.

The schemes can be characterized as redistributive, since they involve a type of taxation that redistributes funds from one group of stakeholders (property owners) to another (the users of public transport in the area).

Earmarked property and exploitation charges have little in parallel with today's Norwegian practice. Large companies such as the telemarketing company Telenor, however, have funded grants towards the operation of public transport in some areas in which they are located. Exploitation charges will be easiest to present in cases where the same party owns the land and is responsible for PT, as there are examples in Copenhagen and in areas in Japan.

To increase acceptance of this type of action the alternatives are either to spread the disadvantages more (for example, by turning exploitation charges for PT into a more standard procedure for new estate entrants by linking it to the Planning and Building Act and counties' right to object) or highlight and communicate the benefits even more (for instance, by linking the collection of earmarked property tax to construction of a new bus/tram stop).

7. Conclusions

We conclude that although, in principle, it is possible to transfer all the funding measures discussed in this paper into a Norwegian setting, different degrees of political and cultural accept will be encountered. In other words, measure characteristics, i.e. advantages and disadvantages distribution, is a powerful determinant when assessing

the possibility of implementing a measure. This is duly illustrated in our discussion section; while there is a long list of Entrepreneur Policies not yet implemented in Norway, the selection of identified Client Policies not yet used is accordingly short. Acceptance must, however, be seen in relation to the projects the funding is being used for; in other words, funding and spending have to be seen in combination. In extension, it seems that combining measures, by creating policy packages, may enable policy makers to balance the weaknesses of one funding measure against the strengths of another.

Exploring how acceptance and similarity interact explains a couple of apparent puzzles in the Norwegian case. For example, PPPs can be labelled a Client Policy, and Norway has had positive experiences with PPPs in road-building projects. A lack of political initiative and a strong Norwegian state economy, combined with the inherent scepticism public organizations often hold against constituent policies, do constitute significant barriers, however. Furthermore, the Entrepreneur Policy Road Toll Collection is widely used in Norway, which might be explained by a long tradition of building highly needed roads and bridges funded by this measure. Consequently, the mere content of a policy measure is not the only factor influencing implementation barriers or acceptance. The context in which the measures are presented can also generate barriers, and this is why the relationship between context and content has to be looked at more closely.

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