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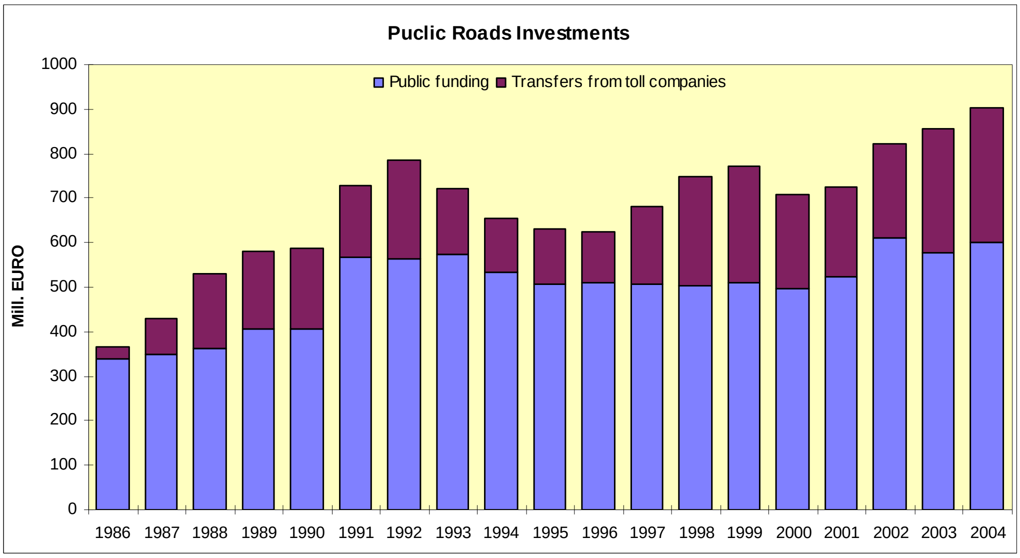
Summary:

”An offer you can’t refuse....” Introduction to the Norwegian urban toll cordon tradition

Alternative financing schemes for urban transport – Part 1

Norway has a long tradition in toll financing of public road infrastructure, dating back to 1929. Traditionally, the financing was primarily related to isolated projects, such as bridges and tunnels. However, with the introduction of the first European toll cordon around a city centre, in Bergen in 1986, the tide shifted. Today, the 4 largest cities in Norway and several smaller have toll cordons. Currently, 1/3 of the investments in public roads are financed by tolls. Most of this comes from the urban toll cordons. The growth is illustrated below.

Illustration S.1. Public Roads investments. Public funding and transfers from toll companies



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The urban toll cordons usually result in some extraordinary public funding. In that sense they constitute a financial package created through a Dutch treat between the State and the motorists. The first packages were “road packages” in the sense that most of the funds were used for public roads. In the more recent packages, funds are also used to finance investments in public transport infrastructure. This development involves more actors in the Dutch treat, such as the railroad authorities and local authorities.

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Considering the strong increase in the tolls collected from motorists in urban areas, and the change towards increased use of the revenue for investments in public transport infrastructure, it is worthwhile asking how this has been possible. In this report, we suggest some explanations.

This report studies the toll cordon packages in the four largest urban areas in Norway; Oslo, Bergen, Trondheim and Nord-Jæren. The three first have been in operation for a long time, whereas the last was introduced a few years ago. The cordon in Bergen has been prolonged and the scope of the Oslo package has been expanded and might be prolonged.

We will examine the toll cordons by first describing the financial packages and comparing their contents. We will also show how they have evolved from simple “road packages” to more urban “transportation” packages, which also include investments in public transport infrastructure as well as roads.

The contents of the packages

When describing the contents of the packages, we focus on the financing scheme and the use of the revenue.

Financing scheme

The financing scheme relates to the fares, discounts, location of the toll cordon, the impacts on different groups of users and other issues on how the funds are collected.

Table S. 1. Comparison of the financing scheme of Norwegian urban toll cordon packages (2002)

		Greater Oslo	Bergen area	Trondheim area	Nord-Jæren area	Norway – all toll roads
Single fare rush hour private car, EURO	Pr 31.12.2002	1,8	1,2	1,8	1,2	
	Pr 01.11.2004	2,4	1,8			
Reduced fare outside rush hours		No	No	Yes	Yes	
Trips through the toll cordon in 2002 (mill.)		89	20	20,5	20,4	228
Revenue in 2002, EURO (mill)		127,6	19,1	20,5	9,9	389,3
Average fare per trip, EURO	2002	1,4	0,9	1	0,5	1,7
	2003	1,5	1			N/A
Maximum yearly payload per private car in 2002, EURO		500	550	780	550	
Average payload per capita, EURO		127	69	130	50	86

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Use of revenue

The type of projects, their size and to what degree they are earmarked for certain purposes or geographical areas are important factors to consider in relation to the use of the revenue. There has been a clear change towards more investments in public transport infrastructure. The first packages had earmarked shares of 10-20% for public transport investments. The newer packages are very focussed on public transport, having shares up to 100%.

The Oslo packages

The toll cordon in Oslo was first intended as an ordinary toll road, financing the tunnels below the city centre, relieving the downtown through traffic. However, before it was established, the municipality of Oslo joined forces with Akershus county and opted for a package to finance several other projects as well. One of the reasons was the lack of sufficient public funds. In the first package, Oslopakke 1, there was a fixed share of 20% earmarked for public transport investments. In 2001, the new package, Oslopakke 2 (O2), passed Parliament. O2 is an addition to the current Oslopakke 1 and consist of an increase in the fare of the toll cordon of 0,25€ per trip and an increase in the public transport fare ticket of 0,1€ per trip. All the revenue accruing from the new package is earmarked for public transport investments.

The Bergen toll cordon and the Bergen programme

The Bergen toll cordon was the first of its kind in Europe. The goal was to speed up a solution to the traffic problems in Bergen. Thus, the focus was on road investments. The new Bergen programme is based on a political compromise between the public transport supporters and the road supporters. The revenue is split between road and public transport infrastructure. The public transport share is planned to finance the development of tram in Bergen.

Trondheim toll cordon

In line with the other early packages, the Trondheim toll cordon was a road investment package. However, a fixed share of 20% was earmarked for public transport, safety or environmental investments related to the traffic.

Nord-Jæren package

This package is of the new generation including both public transportation (PT) investments as well as road investments. The PT part is primarily related to local rail investments.

External conditions

In the report, we make a distinction between three aspects of the external conditions affecting the urban toll cordons;

- ✓ *The legal aspect,* concerning the restrictions set out by law. The most central aspect here is that the Road Act has been revised, allowing investments for public roads to be used for alternative purposes. The alternative purpose must be proven to provide a more efficient solution to the overall transportation problems. This is the basis for which toll cordons and state funds can be used for urban public transport infrastructure, which in general is a local responsibility.
- ✓ *The procedural aspect,* concerning the procedures for the decision-making process. The two main issues here are, that toll financing requires local initiative and consensus and secondly that proposals for new toll roads or substantial changes to an existing, must pass Parliament as a separate bill.
- ✓ *The economic aspect,* concerning the economic structure of the incentives between the different actors. A main topic here is that revenue from toll roads can only be used for investments and that they are likely to trigger extraordinary public funding. This may create a focus on infrastructure investments, perhaps at the sacrifice of operational subsidies or traffic regulations. We also have reason to believe that the incentive structure creates an internal dynamic in the packages, in the sense that this is a way for local authorities to trigger extraordinary funds.

These external conditions influence the decision-making process locally and hence the content of the packages. When the content of the packages have turned out differently, this can in some ways be attributed to changes in the external conditions. The possibility to introduce differentiated fares and financing public transport infrastructure by toll revenue are examples of external changes influencing the content of the packages.

Local processes

The local processes leading up to the packages take place within the framework above. The legal aspect defines some approaches as legal and others as illegal. The procedural and economic aspects make certain alternatives more viable than others. Nevertheless, the outcome has proven to be very dependent on the different constellations of actors involved in the local decision-making process and the compromises established.

The Bergen political compromise

When the first toll cordon was established in Bergen in 1986, the Public Roads Administration locally came with the initiative. At the same time a coalition between the major political parties was established.

In 2003, the toll cordon was prolonged through the Bergen Programme. This new package has one very heavy public transport infrastructure investment; a new city tram ("Bybanen"). In the report, we have focussed on two main issues. First, we have looked into the reasons for including the city tram. Second, we have looked into the reasons why the existing financing scheme has been kept instead of some of the proposed more advanced schemes.

The main supporters of the city tram were the politicians from the centrum and left wing parties. They managed to have the tram "hooked" on the planned road investments, of which almost all politicians were supporters. The broad compromise for the entire package has been based on this combination of road investments and one large public transport investment. The proposal has met resistance from the Public Roads Administration both locally and nationally. They are critical to the alternative use of road funds, questioning whether the city tram is a good alternative to road investments. This disagreement is a distinctive feature of the Bergen Programme compared to the other cities. The dispute has not yet been solved.

Concerning the prolongation of the existing toll collection scheme, this has been the result of the fact that one of the major parties in the coalition is an opponent to anything resembling road pricing. Some of the other parties have also been sceptical. The alternative to prolongation was to introduce a system with two rings and differentiated fares. The expected potential negative response by the voters has also influenced the decission. While the city tram has been a place where the political parties have been able to mobilise voters, they have decided to step carefully on the issue of road pricing.

The Oslo packages – a result of professional-administrative cooperation

Concerning Oslo package 1, we have not been able to point out one single initiator as in Bergen. Rather, it seems as if political-administrative alliances in different fields and on different levels of the administration have been the driving force. The alliances have been broad both professionally and politically, and also stretched outside Oslo, to the neighbouring county of Akershus. These actors have been able to agree on the use of the revenue.

Oslo package 2 is a pure public transport infrastructure package. The initiative, originally came from the National Railroad Authority. The project has been supported by the common interests among several actors with an interest in improving public transport in the region. In contrast to the situation in Bergen, all actors agree that a good public transportation system in essential for the overall transportation in the region. A professional-administrative cooperation has been established. This assures that most of the controversies are solved internally. Simplified, we can say that the Oslo packages illustrate that such packages may be an alternative way to make decisions, not only an alternative way of financing infrastructure.

The Trondheim package – a result of competition over scarce resources

Locally, the process behind the Trondheim package is characterized by a competitive situation with the other large cities. The competition was for the scarce funds allocated to road infrastructure at the national level. There was a local understanding that introducing user fees was a way to “buy a better place in the line” waiting for public funding. This was a result of the fact that both in Bergen and in Oslo, the introduction of toll cordons triggered extraordinary public funding. Thus, they would be in a competitive disadvantage over public funding if they did not introduce a toll cordon.

As in Bergen, the local Public Roads Administration was the initiator together with important politicians. With the general focus on environmental issues in the late 80s, 20% of the funds were earmarked for such issues including public transport and safety. Our impression is that the politicians, contrary to the situation in Bergen, have been very interested in the toll collecting scheme ever since the cordon was introduced. As a result, the system has been revised making it quite advanced with elements of congestion charging. This is also a result of local professional interest in the field.

Nord-Jæren – support based on a broad scope of revenue use and low fares

The toll cordon in Nord-Jæren came more than 10 years after the other packages. As in Bergen and Trondheim, the initiative came from the Public Roads Administration with support from the county council. Initially, however, they did not succeed because the city councils of the two largest cities, Stavanger and Sandnes, were opposed to the idea. The situation changed some years ago when Stavanger accept the proposed scheme. Sandnes still is in opposition. However, Parliament did not turn the proposition down because the other 9 municipalities affected by the cordon were positive to it.

The toll cordon established covers a very large area. The fares are low, with some differentiations making the fare in the rush hours higher. A large amount of the package is earmarked for railroad investments. The information we have considered indicates that this new package is a result of a high degree of involvement by the politicians in the initial phases. This created a compromise most of them accept, and also one that the Public Roads Administration can accept.

Conclusions

In the report we have discussed the packages in terms of both efficiency and legitimacy. One important issue is the trade-off between these two aspects. The table below summarizes some of the contents of the packages.

Table S. 2. Summary of the contents of the packages

	Bergen toll cordon	Oslo package 1	Trondheim toll cordon	Oslo package 2	Nord-Jæren package	Bergen programme
Share road vs public transport	Road package	Road package (20% for PT)	Road package (20% for PT and environment)	Public transport package	Public transport package (65%)	Combined package (50/50)
Regional earmarking	No	Yes (60/40 Oslo/Akershus)	No	Unspecified	Yes	No
Fare level	Medium	High	Medium	High	Low	Medium
Elements of congestion charging	No	No	Weak	No	Weak	No

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Expanded range for legitimacy

One clear feature from our study is that the scope for the legitimacy of the packages has been expanded. While the first packages based their legitimacy on being road packages financed by motorists, the new “tradition” of packages base their legitimacy also on issues such as public transport and the environment. This way they are also supported by other groups. At the same time this erodes the legitimacy built on the direct link between the motorists and the benefit of the road packages.

Equity considerations require public funding

Distributional and different “equity” considerations influence the packages on most aspects and stages of the decision-making process. For the financing scheme some of these problems have been solved by making the packages a Dutch treat which also trigger extraordinary state funding. In that way, extraordinary state funding is the “carrot”. In the new packages these extraordinary funds also come through the railroad budget.

One important question is whether the cities not introducing such packages become double losers. This will be the case if the packages take a larger share of the public funds and the funds are not increased.

Legitimacy based on a positive outcome for all parties

Concerning the design of the financing scheme, efficiency considerations and distributional considerations among the users often collide. The underlying norm for solutions to this is legitimacy based on a positive outcome for all parties. If all actors agree, it is possible to trigger extraordinary funds. Due to the norm of local agreement, some parties have a veto. Thus to achieve a solution, most parties have to achieve a positive outcome of the packages if they are to accept it. The result is that the packages need extra funds and that real priorities are hard to achieve. This situation can explain several of the characteristics of the toll financing schemes.

This also explains one of the major observations in this report. The packages have created their own dynamics, involving more actors and more elements of the transport policy. Simplified, we can say that the packages, to an increasing degree, represent an alternative way to make decisions, not only an alternative way of financing.