



Summary:

State investments in public fairways

The Swedish National Audit Office has audited central government initiatives to achieve effective investments in public fairways.

Background and reason for the audit

The State invests more than SEK 23 billion annually in new infrastructure in the various modes of transport – road traffic, rail traffic, shipping and aviation. Decisions on investments are made as part of intermodal planning, which is based on the idea that the most effective transport solutions must be implemented, regardless of mode of transport. Investments in roads and railways represent the majority of all investments in infrastructure, but fairways have become increasingly important as new and larger vessels are built, which require greater fairway space. Investments in infrastructure are funded through central government appropriations, but co-financing from municipalities and with EU funds may also occur.

The Swedish Transport Administration is the public agency responsible for coordinating long-term infrastructure planning for road traffic, rail traffic, shipping and aviation. The agency is responsible for producing “choice of measures studies” at an early stage for all investment projects, in which all advantages and disadvantages of an investment alternative are thoroughly investigated. Moreover, the agency draws up the proposals for investments that the Riksdag and Government decide on in the national transport plan. The Swedish Transport Administration is also responsible for drawing up cost-benefit analyses on which to base these decisions.

Despite this planning process there is a risk that shipping fairway investments are perceived as a marginal phenomenon, compared with the major investments made in roads and railway. The purpose of this audit is therefore to investigate whether review of investment alternatives for fairways in practice is equivalent to that for other modes of transport.

Three sub-questions have been formulated to fulfil the purpose:

1. Is the planning process for fairway investments transparent and equivalent to the process for other modes of transport?
2. Are the cost-benefit analyses for fairway investments of the same quality as those for investments in other modes of transport?
3. Do the cost-benefit assessments have a clear impact on the decisions on investments in fairways?

Audit findings

The Swedish NAO reports its audit findings under three headings, corresponding to the three audit questions.

The planning process

The current planning process, which was introduced in 2013, is considerably more coherent than the previous process, and has more competitive neutrality between the modes of transport. The process as a whole should also be seen as sound in the sense that thorough studies are made of the different investment alternatives. The choice of measure studies carried out appear to be ambitious and in most cases well-considered. The differences between various modes of transport that exist in the process seem well-motivated. All in all, this new process therefore provides considerably better conditions for realising the intentions of intermodal planning.

However, one deficiency is that many of the investigations have not followed the “four-step principle” stipulated by the Riksdag and Government, which requires systematic investigation of other alternatives to an investment, such as influencing demand or more effective use of existing transport networks. There is better compliance with the four-step principle now than before, but nevertheless, the Swedish NAO notes that choice of measure studies have been presented even in 2016, in which the Swedish Transport Administration has not followed this principle. This applies in particular to step one, where an analysis should be made of whether demand can be steered and whether transport needs can be reduced. However, these questions are difficult to answer, and better guidelines are needed here.

The planning process necessarily represents a selection process in which some projects can continue in the process and some not. Here the Swedish NAO notes that there are no clear reasons for why some projects qualify for the national transport plan and others do not. In the opinion of the Swedish NAO, transparency in the selection process needs to be improved.

The fact that a project qualifies for the national intermodal plan for the transport system does not mean that the final decision to implement the investment has been taken. These construction start decisions are taken annually by the Government based on proposals by the Swedish Transport Administration. During this process projects in the transport plan may be upgraded or downgraded. The reasons for these priorities are difficult to follow for an outsider. Transparency needs to be improved here too.

The cost-benefit analyses

The quality of the cost-benefit analyses has gradually improved in recent years. A contributory factor may have been that a central agency such as the Swedish Transport Administration now has responsibility for the quality of estimates. Previously the Swedish Maritime Administration was responsible for the analyses, and it was also common for municipalities and municipal port companies to initiate cost-benefit analyses on which to base investment decisions. For a long time there were no standardised calculation tools for shipping-related estimates, but the Swedish Transport Administration now uses the same model description to produce maritime estimates for various investments. Nevertheless, the Swedish NAO has found deficiencies in these analyses.

Forecasts of the size of the vessels entering into ports in future differ considerably in various estimates, without any apparent reason. The Swedish NAO sees a need here to clarify the guidelines that are to apply for assumptions on the future fleet, particularly since these forecasts impact the assessment of reduced transport costs, which in turn constitutes the greatest benefit item in the cost-benefit analyses. It is also a deficiency that no sensitivity analyses are made of the economic life assumptions. The effects of security-enhancing measures is another factor that is difficult to assess, and here too there are no internal guidelines for how these effects should be assessed. There are considerable differences in the evaluation of the benefit of these measures from case to case.

Another deficiency is that the investment projects themselves are sometimes too narrowly delimited. The Swedish NAO's audit found three examples in which there was no estimate for the entire project, i.e. all the investments, including in other infrastructure, that must be made in order to realise the benefits. All benefits in the project are counted, but not all the investment costs necessary to realise the benefits. The investment costs that are not included in the calculation are allocated instead to other separate projects. There is a clear risk that benefits will be counted double, while costs are distributed among several projects. The projects will then appear individually as more profitable than they are collectively. According to the Swedish NAO this is a

quality shortfall in itself, and also contravenes the current principle that planning and investment must proceed from an intermodal perspective.

Investment decisions

According to the Riksdag and the Government, economic benefit should be a key principle when an investment is made, but it does not necessarily have to be the decisive factor. The audit shows that the fairway investments assessed to be economically beneficial were also implemented. On the other hand, projects that did not qualify for the national transport plan seem to have been approximately equally economically beneficial. Consequently, it is difficult to say whether the assessments of economic benefit have clearly affected the investment decisions. The fact that the number of fairway investments to date is so small makes further assessment difficult and in the opinion of the Swedish NAO there is reason to for subsequent follow up of the issue.

The information that emerged in the audit shows that co-financing may have a negative influence on how assessments of economic benefit are taken into account ahead of investment decisions on fairways. There has been a kind of implicit principle that fairway investments must be co-financed. There has also been an implicit principle that central government should finance safety while municipalities should finance increased capacity. In the course of the audit the Government published a new infrastructure bill (Govt. Bill. 2016/17:21), which clearly states that there should be no co-financing requirement. Given that the agencies involved will in future comply with these clarifications from the Government, this principle will also disappear.

The Swedish NAO's recommendations

The Swedish NAO makes the following recommendations to the Swedish Transport Administration:

- Ensure that in future all choice of measure studies comply with the “four step principle”. It is mainly in the difficult first step that there are deficiencies, and a concrete measure for improvement is to develop guidelines for this step so that the analyses are more uniform and systematic.
- Ensure better transparency regarding the priorities made in the planning process. It must be possible to understand why some projects are included in the national plan and others not. It must also be possible to understand why some projects are upgraded or downgraded at the time of the construction start decisions.

- Give priority to continued development of analysis methods to calculate the economic benefit of fairway investments. The need to develop forecasting models for future demand is particularly great. Sensitivity analyses of assumptions on economic life should also be developed. The ambition should be that the analyses are of equal value and achieve the same quality as the calculations and analysis methods that exist for roads and railways.
- Ensure in internal guidelines that projects are not too narrowly delimited when calculating economic benefit. The key principle must be that all costs of investments that must be made to realise the benefits are included in the cost-benefit analysis.

The Swedish NAO makes the following recommendation to the Swedish Agency for Transport Policy Analysis, in the context of its role in evaluating and analysing the effects of measures in the area of transport:

- Consider monitoring at regular intervals the degree to which economic cost-benefit analyses are taken into account in investment decisions on transport infrastructure. That would make it possible to monitor the Riksdag's and the Government's objective that economic benefit should be an important principle for investment decisions.