



RIKSREVISIONEN

Summary:

The Productivity of the Swedish Transport Administrations

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Summary

The Swedish National Audit Office has audited the Swedish transport administrations' calculation and reporting of productivity between 1991 and 2009. Also the Government's role has been audited. The two transport administrations, Vägverket (the road administration) and Banverket (the rail administration), merged on 1 April 2010 into the new *Swedish Transport Administration*.

Background to the audit

Motives: Every year, the Swedish state spends considerable amounts on its transportation infrastructure. The Budget Law stipulates good housekeeping with the state's resources. In government bills and inquiry reports, the need for measurements of the productivity and the quality of the state administration has been pointed out.

The inquiry report which led to the establishment of the new Transport Administration stated that productivity in the construction sector has developed poorly for many years. This has had a negative effect on public expenditure. At the same time the state, in the role of owner and client of the constructed objects, can contribute to productivity growth.

Purpose: The purpose has been to audit whether the former transport administrations, Vägverket and Banverket, have measured and reported their productivity in compliance with reasonable expectations and demands. The Government's reports to Parliament, and the Government's expressed requirements on the transport administrations, have also been audited.

Implementation: The National Audit Office has defined productivity as the volume of infrastructure for money (km/SEK). Productivity development has been defined as the relative difference of productivity in per cent between two points in time.

The annual reports of the Government and the annual reports of the two transport administrations from 1991 to 2009 have been examined and compared to legislation and statements of the parliamentary committees. A couple of methods for calculating productivity have been used. The data has been collected from the annual reports, the information databases of the transport administrations and new data which the National Audit Office has gathered from the transport administrations' management, project managers, consultants and subcontractors.

The results of the audit

The National Audit Office's overall conclusion is that the Government and the two transport administrations have not met reasonable demands regarding the measurement and reporting of productivity. The National

Audit Office's own calculations of productivity in the construction operations indicate that it is possible to considerably improve the measuring of productivity. This requires that shortcomings concerning the prerequisites for carrying out correct productivity calculations are remedied.

The Government and the two transport administrations have not developed their reporting of productivity

During the 1990s, general methods were developed for calculation and reporting of productivity within the Swedish public administration. The annual reports of the Vägverket reflected this trend relatively well up to 2001 and those of Banverket reflected it in 1997. However, the Government has never expressly demanded that productivity in construction operations should be included, even though these investments have amounted to approximately half of the total budgets of the transport administrations and even though there has long been reason to fearing that these activities suffer from low productivity. The governmental directive to the new Transport Administration for fiscal year 2010, however, has added a requirement that the productivity development for construction should also be reported annually.

The transport administrations have mostly reported back to the Government in compliance with the requirements in their annual directives. According to the National Audit Office, however, the transport administrations, in their capacity as authorities responsible for their respective fields of operation, should have assured that quality of the reported data were relevant also for productivity assessment purposes. In addition, the Government should have been more active in developing productivity measurements after 2001 in order to encompass a larger portion of their total budgets. This also follows from the requirements on good housekeeping of resources embodied in the Budget Law, which requires particular follow-up of activities.

Both of the transport administrations, in particular Banverket, have often changed the definitions, concepts, methods, dimensions and reports in a manner which has impeded comparisons over time of how performance, volumes, costs and productivity have developed. The Government could have informed Parliament more noticeably of the negative productivity trend which, despite the non-quantified descriptions by the transport administrations, can be understood from their annual reports.

It is possible to measure the productivity of the transport administrations

Further to the lack of measurements of productivity in construction, the National Audit Office has limited its calculations to this part. The calculations demonstrate that it is possible to measure productivity, also in construction. According to the National Audit Office, the Government and

the transport administrations have not analysed the construction of new infrastructure well enough to make them comparable.

The National Audit Office first carried out calculations with data found in the annual reports. As a result of major fluctuations and an improbable productivity increase, further calculations were executed using specifically collected data with a higher degree of detail.

The second set of calculations indicates that the productivity in the construction of major projects has declined. With the productivity definition used, the decline amounts to an average between 1 and 6 per cent below zero per year between the years 2005 and 2009 depending on which index that is considered as being relevant for adjusting the costs for inflation. The result should be interpreted with caution, since sources of error prevail. If this measurement is nevertheless representative for all construction, it will take time for the Transport Administration to achieve the productivity increase targeted by the Government.

Poor conditions for productivity calculations

The data found in the annual reports of the transport administrations was not expressly requested by the Government to reflect productivity, but general requirements on reliability should have given the transport administrations reason to ensure that the data also delivered a true picture for that purpose. Category definitions and boundaries are, according to the transport administrations, not consistent over time.

Major shortcomings have also been found in the prerequisites for making productivity calculations, such as the archives, project documentation, competence maintenance and accounting systems of the transport administrations. For example, the final versions of the project documentation (which show performance) and the cost (which show consumption of resources) are difficult to identify and localise.

It has not been possible for the National Audit Office to find that the transport administrations have expressly initiated or financed research to develop productivity measurement in construction. However, the National Audit Office has noted that the Transport Administration has started work on developing its measurement of productivity on the basis, among others, of the report issued by Statskontoret, the Swedish Agency for Public Management, (2010) on productivity trends in the construction sector.

The recommendations of the National Audit Office

The Government should define, follow up and report in more precise terms

- The Government has required a more comprehensive reporting of productivity, in their directive to the agency regarding fiscal year 2010, by also including construction. The Government should, together with the Transport Administration, also state precisely what is to be included in the accounting of productivity for infrastructure and adapt targets and requirements to such a definition.
- The Government should, to a reasonable degree, monitor and follow up the scope, accuracy and relevance of future calculations and report them back to Parliament.

The Transport Administration should report productivity in more precise terms

- The Transport Administration should measure and report productivity and productivity trends with a level of detail appropriate for the Government and Parliament. For its internal control, the Transport Administration should consider measures of productivity with a higher degree of detail.
- The Transport Administration should ensure that the definitions and categories used result in unit costs in the annual reports providing a better reflection of productivity trends.

The Transport Administration should improve the prerequisites for measuring productivity

- The Transport Administration needs to build up internal skills, and also promote the development of external skills and research, regarding productivity measurement and reporting of productivity.
- The Transport Administration should ensure that construction data can be linked to corresponding costs and that the information is stored in digital form with access also to external research workers and auditors.
- The information should be structured so that productivity calculations and other comparative analyses may be carried out. It should be possible to calculate national average unit costs.

Fact file

In 1991, the Productivity Delegation appointed by the Government presented its final report. This final report emphasises the need for tools for productivity measurements.

In 1996, the Parliament's Finance Committee expressed support for the state inputs to be followed up systematically and continuously, given that the Government had, in its financial forecast, expressed that it was of crucial importance that the authorities continually increase their productivity (Government bill 1996/97:1, report 1996/97:FiU1, p. 235). The standing committee agreed with the assessment of the Government that the

accounting by the authorities of productivity and quality for the services produced needed improvement in view of the fact that they constitute a crucial tool for Parliament's and the Government's control and follow-up of activities.

During the 21st century, questions relating to productivity have been given less attention than during the 1990s. However, the Parliament's Traffic Committee has addressed questions on productivity as a result of the outline bill for traffic infrastructure 2008 (bill 2008/09:35, report 2008/09:TU2, p. 76). The committee agreed with the assessment of the Government that the productivity trend of the construction sector was poor and that the state as a major procurer should contribute in reversing this trend.