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Summary:

How to manage higher education and research at universities and university colleges – final audit report

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The Swedish National Audit Office has within its strategy *The role of central government in the education system* investigated the Government's management of universities and university colleges and how these institutions manage and evaluate their activities. The final audit report is based on ten audits undertaken in 2007–2011 and its theme is the effects in terms of quality and efficient use of resources that emanate from the national systems for allocating resources to the university sector for higher education and research.

Audit Background

Audit Basis: Higher education and university research constitute one of the largest public sectors. In 2010, the institutions of higher education received almost 60 billion Swedish kronor, predominantly from public sources of funding. Almost half a million people spend their time at one of the nearly forty universities and university colleges in Sweden, either as a student or as an employee. Today and in the future, their knowledge and skills are of major importance for society at large.

- Swedish universities and university colleges provide both higher education and research and the two shall be closely connected.
- Universities and university colleges are distributed all over Sweden to ensure that they contribute to regional growth and a broadened recruitment base.
- Education and research in the university sector shall attain high quality and operations shall be efficient.

The Swedish university sector faces new challenges due to increased competition for students, researchers and resources, both nationally and internationally. At the same time, it is essential that each institution of higher education can maintain its integrity and the characteristics that define universities and university colleges.

Institutions of higher education enjoy a high degree of independence in how to meet these challenges. But at the same time, the strategic importance of higher education and research for society as a whole places substantial responsibility on the Government to create driving forces that stimulate institutions to provide education and research that meet objectives of academic quality and efficient use of resources.

Audit Objectives: The purpose of this final report is to review how the Government manages education and research at the Swedish institutions of higher education and how the institutions themselves manage their activities. The focus of the report is to what extent the government has created driving forces that ensure that objectives regarding quality and efficient use of resources are met.

The overall question for the audit is:

- Has the Government created conditions required for higher education and research of good quality?

Audit Scope: The report is based on audits carried out by the Swedish National Audit Office in 2007–2011 within the framework of an audit strategy and on two additional studies. The audits were based on questionnaires answered by students, teachers and institutions of learning, on interviews with representatives of institutions of higher education at different levels, as well as on documentation studies and analyses of university sector statistics. The ambition of the strategy has been to conduct an in-depth analysis of Swedish higher education by using evidence from many different institutions of higher education and by analysing both education and research. One of the additional studies investigates how representatives of institutions of learning and other relevant agencies view the way the Government manages higher education and research. The other study investigates how the governing boards of universities and university colleges work and how the board members view their role.

Audit Findings

In this final report, the Swedish National Audit Office presents overall findings and recommendations. The Swedish National Audit Office concludes that the national systems for resource allocation create risks for quality and efficient resource use. There are problems exist that cannot be solved within the framework of these systems. Also, there are problems that cannot be handled by the individual higher education institution. Thus, there is a need for active government measures in some aspects. At the same time, there is also a need for good strategic management at the level of the institutions themselves.

Government funding of research at the higher education institutions

Research at Swedish universities and university colleges is funded by means of a dual system: (i) budget grants allocated directly to the institutions and (ii) external funding from research councils and other external organisations. Direct budget funding is important for researchers' freedom to choose research areas and for the independence of institutions in relation to external funders of research. External funding is important in order to ensure that research is undertaken within areas that are particularly relevant to society. The competition for external funding from research councils is important in ensuring high academic quality.

The share of external funding in relation to total funding for research has increased steadily over time and this has been part of Swedish research policy. However, if most of the budget funding is needed to co-finance externally funded research, this may threaten the integrity of the institution and limit its scope for developing a coherent research profile.

The Swedish National Audit Office concludes that the dual system of research funding has led to certain efficiency problems. The volume of research has not expanded in proportion to the increase in total research funding and this has led to an increase in the annual stock of research funding that at the end of the year

has not been put into use. One causal factor behind for this tendency is that availability of external research funding has become concentrated to certain departments with the institutions. At departments there has been an inability, or lack of desire, among researchers to expand the research activities in proportion to the increase in resources. The increase in unutilised research funding has been further reinforced by driving forces among the researchers towards postponing use of research funds as a way to safeguard future income.

In the opinion of the Swedish National Audit Office, the system ways of allocating research funding to institutions of higher should be improved in order to ensure efficient use of funding and to safeguard the integrity of institutions of higher education against undue influence from external funders.

Quality in undergraduate and graduate education

Important prerequisites for high quality in undergraduate and graduate education are that there are links to on-going research and that resources allocated to courses and programmes are sufficient.

There is a risk that links to research are not secured in current higher education. The meaning of links between education and research has not been defined by the Government. Forces within the academic career system and the funding system for research create driving forces that make for a split within university departments so that some academic staff spend their time almost exclusively in research and others almost solely in teaching.

In the national funding system for undergraduate and graduate education there are big differences in the level of funding between different areas of higher education. These differences have been maintained since the 1993 reform of the higher education system, despite changes that have occurred since then with respect both to the structure and to the costs of higher education. This may entail that some education programmes are currently suffering from underfunding while others may be overfunded.

The Government has emphasised that each university and university college should create its own profile in education and research and that they should collaborate with other institutions in order to create more specialization within the supply of programmes and courses. However, the national funding system for higher education creates driving forces which tend to make the range of programmes offered by the institutions rather similar. The competition for students tends to hamper initiatives to cooperate and to differentiate the educational programmes on offer. The problems of insufficient collaboration between institutions and the high degree of similar ranges of educational programmes are difficult to solve within the current system of competition between institutions.

Because the funding system for higher education allocates funds on the basis of number of students enrolled and study results on part of students, there is a risk of over-generous assessment of student results. Furthermore, internal competition between education and research for common resources within an institution may lead to the quality of education being compromised. It is essential that there is sufficient quality assurance in place to ensure educational quality.

In the view of the Swedish National Audit Office, there is a risk that higher education courses and programmes do not achieve sufficient standards of quality and resource input. The current system creates driving forces towards limiting the range of higher education courses on offer and towards insufficient links between research and higher education.

Knowledge of the higher education sector

In universities and university colleges there is a wide range of activities and it is important that higher education and university research be analyzed jointly. E.g. there is a need for better knowledge on how to ensure and maintain links between research and higher education and how different ways of external research funding affect activities within universities and university colleges.

In the opinion of the Swedish National Audit Office, the way that responsibility for statistics and analysis is assigned between a number of national agencies may constitute an obstacle to better knowledge concerning the interplay between higher education and research in the university sector.

Management at universities and university colleges

The governing boards of universities and university colleges are responsible for overall planning of available resources and for evaluating and monitoring of operations. Ensuring active engagement of the governing board is important in order for universities and university colleges to shoulder their task. Good management requires adequate introduction of board members, providing them with sector-specific knowledge and an understanding of the national systems of allocating resources for education and research.

Strategic management is an important responsibility of the governing board. In the opinion of the Swedish National Audit Office, it is vital for both the higher education institution and for the development of the university sector as a whole that management at the university level do not view education and research as separate activities in order to secure links between the two..

Evaluation and monitoring of the use of resources

The Swedish National Audit Office has observed deficiencies in the way institutions of higher education monitor and evaluate their use of resources. Weaknesses exist regarding the division of costs between education and research. The internal accounts do not present adequate information on future commitments of budget funds with respect to co-financing externally funded projects. There is also a lack of internal routines for following up resources allocated to courses and programmes within higher education.

Each university and university college enjoys a great scope of independence in deciding the content and structure of its activities both in education and in research. The Swedish National Audit Office emphasises the importance of monitoring resource use. A high degree of autonomy creates a need for adequate monitoring, both for the purpose of management at the university level and for reporting to the Government and other interested parties.

Audit Recommendations

Recommendations to the Government

- The Government should review the principles and methods of funding research and post-graduate education in order to strengthen the integrity of the institutions of higher education and to create favourable conditions for efficient resource use.
- The Government should analyse the need for a more differentiated range of programmes offered by Swedish universities and university colleges.
- The Government should review the system for allocating resources to undergraduate and graduate education.
- The Government should analyse ways to secure better links between higher education and research.
- The Government should review the way that responsibility for statistics and analysis of the university sector is organised among national agencies.

Recommendations to universities and university colleges

- The governing boards of universities and university colleges should develop their strategic management. This should involve how undergraduate and graduate education can be developed in concert with the research profile of the institution.
- Universities and university colleges should cooperate in order to strengthen the board members' understanding of conditions within the university sector.
- Universities and university colleges should develop their capacity for evaluating and monitoring resource use.