

# 92

## *Annual Report*



Stiftelsen

**RIKSBANKENS JUBILEUMSFOND**

The Bank of Sweden Tercentenary Foundation

*Annual Report*  
1992

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## 1992 in brief

- A sum of SEK 72.3 m. was disbursed as research funds (1991: SEK 72.5 m.).
- Of the research funds disbursed, SEK 13 m. covered value added tax and overhead charges at state universities and colleges (1991: SEK 10.4 m.).
- The total number of financed projects was 196 (1991: 184 projects).
- The average size of an annual grant (including value added tax and overhead charges) was SEK 364,000 (1991: SEK 389,000).
- One-fifth of the amounts granted were allocated to 40 *new* research projects (6 fewer than in the preceding year). Only continuation grants were awarded in the autumn of 1992.
- Rejected applications (385 projects) represented a total requested sum of just over SEK 230 m. (1991: SEK 194 m.).
- Competition for research funds continued to be very keen. It was possible to award grants covering only 6.2% of the amounts requested for new projects (1991: 7.7%).
- The Foundation received an endowment of SEK 6.5 m. from **Erik Rönnerberg**, of Fagerdal, Hamnerdal. The annual income from the endowment will be used for postdoctoral scholarships for scientific studies of ageing and age-related diseases at the Karolinska Institute.
- Professor **Horst Ahlback**, the first recipient of the Foundation's prize for German researchers within the framework of the mutual agreement with the Alexander von Humboldt Foundation, was guest researcher at the Department of Business Studies, University of Uppsala, during the year.
- The Foundation decided jointly with a number of European foundations to take part, during a five-year period, in setting up and financing an international research centre – **Collegium Budapest** – in Hungary.

## The Foundation's tasks, inception and aims

The Bank of Sweden Tercentenary Foundation (Riksbankens Jubileumsfond, RJ) is an independent foundation with the objective of promoting and supporting scientific research.

A central task of the Foundation is to manage its assets in such a way that the economic basis of its operations for supporting research is secured for the future.

The Foundation was instituted in 1962 by means of an endowment from the Bank of Sweden, which wished thereby to commemorate its tercentenary in 1968 and, at the same time, to advance "an important national cause". The annual return on the anniversary donation was to be used for promoting scientific research linked to Sweden.

In the guide-lines and regulations that were drawn up for the independent foundation, it was recommended that the activity should be given "a substantial measure of flexibility" and that "no research area should be denied the possibility of receiving funds from the Foundation". Initially, the activity was

*to be focused on such research as is aimed at adding to the knowledge about the effects that technological, economic and social changes have on society and on individual citizens.*

This recommendation has guided, and continues to guide, the activities of the Foundation.

The Foundation's statutes were adopted in December 1964. The present statutes (adopted on January 1, 1988) state, for example,

*that priority shall be given to those areas of research whose funding requirements are not adequately met in other ways;*

*that the Foundation's funds shall be used especially for supporting major, long-term research projects;*

*that special attention shall be paid to new research requiring prompt, vigorous action;*

*that the Foundation shall seek to promote contacts with international research;*  
*and*

*that the Foundation's funds shall be managed with the objective of maintaining a long-term capacity for awarding grants for the research purposes stated and that the requirements of a favourable return and a good spread of risks shall be ensured through a suitable composition of the Foundation's assets.*

Two objectives were then defined for the financial activity:

- 1. that the research grants shall, if possible, be upvalued each year approximately at the same rate as the consumer price index;*
- 2. that, as a prerequisite for realization of the first objective, the necessary portion of revenues must be added each year to the Foundation's assets so that they maintain their real value.*

The Bank of Sweden Tercentenary Foundation promotes and supports **advanced research in all scientific disciplines**. In general, this is done by awarding project grants to individual researchers or groups of researchers. Applications received for grants are always assessed in the light of the best international research.

In the first place, the Foundation gives priority to those areas whose requirements are not met naturally in other ways, for example, through state research councils and other authorities, each of which, of course, covers a relatively limited sector. Thus, for example, the Foundation is interested in **multidisciplinary** or **interdisciplinary research**. The catalogue of activities financed to date also shows examples of many major, long-term projects, in which researchers from different faculty areas, localities or countries co-operate. The Foundation's resources should be regarded primarily as a complement, and not as an alternative, to other resources available for advanced research in Sweden.

The first grants were awarded in the autumn of 1965. Since then, a sum of about SEK 2.5 bn (in 1992 monetary value) has been awarded for scientific research. The Foundation's assets at year-end 1992 amounted to nearly SEK 2 bn, which, in real terms, is equivalent to the basic endowment of SEK 250 m. in 1962.

## Managing Director's comments

In certain respects, the past few years have been difficult for the Bank of Sweden Tercentenary Foundation. It has been impossible for the Foundation to realize its objective of being able to upvalue the grants for scientific research at the same rate as the consumer price index, while transferring the requisite sum from revenues to the Foundation's assets so that they maintain their real value. As a result, the competition for research funds has intensified markedly. In 1992, the Foundation was able to grant only 6.2% of the amounts requested for new projects (1991: 7.7%, 1990: 8.7%).

Those who have suffered in the first place are naturally the large number of outstanding researchers whose applications were rejected. Many research projects of an advanced and important character in an international perspective have either not started at all or have been greatly delayed.

Despite the Foundation's highly successful *financial* activity in comparison with other asset management institutions, its capacity as a *research-supporting* agency has deteriorated in real terms. Circumstances lying entirely outside our scope of action have affected our results. Many factors were involved in the real decrease in the direct support to individual researchers or research groups and, unhappily, they acted concurrently.

The amounts that had to be set aside during 1989-91 in order to maintain the real value of the Foundation's assets were twice as large as the research funds awarded. The total rate of inflation during these three years was just over 25%.

In last year's "Managing Director's comments" I pointed to the necessity for gradually reducing the annual amounts for research funds to about 3% of the size of capital at the beginning of the same year. This guide value is commonly followed by fund managers whose task it is to maintain the real value of their assets in the long term. Up to now, the figure for awards by the Foundation has been just over 4%. This reduction, which is necessary in the long term partly because of the generally weak economic trend worldwide, may mean additional real cuts in the resources that the Foundation can make available for scientific research during the next few years.

As of July 1, 1991, "university departments and museums and other cultural authorities under the Ministry of Education and Cultural Affairs" are required to make a deduction of 8%, as value added tax, from external non-state funds which they administer. This deduction is tantamount to adding nearly 9.9% to project grants from the Foundation. Starting from 1990, each state university that administers external research grants makes a deduction of 12% for **overhead charges**, or so-called shared costs. This deduction corresponds to an additional charge of 13.6%. Thus, in addition to the funds calculated for a specific research project, the Foundation **must add 23.5% to the figure**. In 1992, a sum of SEK 13 m. was paid for the stated purposes. This amount is equal to about 35 project grants of average size.

It is not unlikely that, in future years, state educational establishments will also demand special funds to cover the cost of premises from external non-state grant-awarding agencies. The size of these charges and the date from which they will be payable are uncertain at present. A guess is that, for each research project selected in the future, a total addition of the order of 40-50% must be made to cover extra costs (infrastructural costs). Thus, further erosion of the amounts that could be devoted to the research work proper may be expected.

In the majority of European welfare states it is considered that the importance of independent, asset-management foundations will grow in the next few decades. Given the economic conditions which prevail at present – and which are expected to continue in the future – competition for public funds will intensify. In this perspective, it naturally feels distressing that the Foundation's real grant-awarding capacity has diminished in recent years and that an increasing proportion of the research funds is absorbed by extra costs (infrastructural costs) in connection with selected projects. On

the other hand, I can state with satisfaction that the Foundation, with a well-functioning organization for its research-supporting as well as its financial activities, is well equipped for the future. It is noted elsewhere in this annual report that the *Foundation's assets, in real terms, are still equivalent to the basic endowment received in 1962*. And yet, a total of about SEK 2.5 bn (in 1992 monetary value) has been disbursed in the meantime (1965-92) in the form of grants for scientific research. A continued annual disbursement of research funds equal to about 3% of real assets appears realistic for the future.

I find it highly gratifying to note that the Foundation received a substantial donation during the year. Following the reorganization of 1988, when the Foundation was given the free right of investment and set up its own financial management, the statutes state that "additions to the Foundation's funds" may be made in the form of endowments.

After contacts over a certain period with the Foundation, **Erik Rönnerberg**, an 83-year-old farmer from the County of Jämtland, decided in the summer to donate shares with a market value of SEK 6.5 m. to the Foundation. The annual return "shall be awarded in the form of three-year postdoctoral research scholarships to young researchers for scientific studies of ageing and age-related diseases at the Karolinska Institute (KI) in Stockholm." Since the endowment forms part of the Foundation's assets, effective and professional management in the long term is guaranteed, with the same proportional yield as in the case of the Foundation's other assets. The selection of scholarship recipients will be conducted in the same professional way as in the case of other scientific awards or grants for advanced research. At the same time, the donor's name will be linked with the scholarships awarded as if the endowment formed a separate fund. On behalf of the entire research community, I would like to thank Erik Rönnerberg warmly for the generous endowment.

Donations, with specified applications as in the case of Rönnerberg or intended to strengthen the Foundation's regular research-supporting activity, will be accepted gratefully in the future as well. A prospective donor is guaranteed professional management of the capital donated as well as the highest competence for awarding grants for the stated purposes. To anyone wishing to make a donation in order to support scientific research in an effective, expert, impartial and open way, the Foundation is recommended as a recipient. Moreover, the Foundation's administrative expenses are extremely low. As a proportion of the funds under management, expenses are less than 0.5%. This proportion covers the costs of *both the research supporting and the financial activity*. By way of comparison, it may be mentioned that the various fund-management agencies of banks and the now dismantled wage-earner funds have reported more than twice as high administrative expenses – expressed in the same way – *only for financial activity*. The practice of making donations to established foundations in the way described above is being adopted to an increasing extent in other countries. Finland, France and Germany are among the countries which have had long-standing, favourable experience in this connection.

The end of 1992 marks the close of my 19-year tenure as managing director, which started in 1974. During this time I have had the privilege of working together with five Board chairmen – all professors and university vice-chancellors. In addition, about 160 persons (75 researchers, 70 members of parliament, 15 experts in economics) have been members of the Foundation's Board of Directors or of some of its preparatory committees. Well over 1,000 external experts in Sweden and in other countries have been engaged to assess applications for research grants. It has been possible to start an estimated 800 new research projects with grants from the Foundation. This means that upwards of another 1,000 active researchers from various disciplines entered our "circle of friends". It is with great gratitude that I recollect all the stimulating contacts – national as well as international – I have had with these knowledgeable and enthusiastic persons.

The Bank of Sweden Tercentenary Foundation is reportedly one of the few major

research-supporting agencies in Sweden which have, or have had, a competent scientist as Board chairman. Moreover, a fact worth noting is that, ever since the start of operations, this position has been held by university vice-chancellors. I believe that the experience which a university head has of advanced scientific activity in different disciplines means much to a Board of Directors which has to work out how the available financial resources for research are to be utilized in the strategically best way. It is also worth noting that a majority among the Board members represents especially advanced competence outside the scientific area. Moreover, all Board members take part in the work of the various preparatory committees. In my opinion, the exchange of views which takes place in these committees contributes to the mutual understanding of the role of research in society and of its possibilities, general situation and requirements.

In addition, I believe that it is of great value that assignments in a research-supporting agency are held for a limited term. The statutory shifts over time between persons with different scientific or social specializations and experiences ought reasonably to lead to the avoidance of biased or narrow assessments. The guiding principle of the Foundation's work of allocating priorities, namely, that the grants shall be awarded to projects that meet the highest international standards of quality, has also been largely satisfied according to my observations of research circles in and outside Sweden.

It is naturally with a certain amount of regret that I now leave the stimulating work in the Foundation. The past 19 years have without doubt been the best in my long professional life. To have had the chance of working together with committed and competent Boards and with highly knowledgeable and enthusiastic colleagues for such a long time in such informative and dynamic sectors of society as the scientific and the financial is without doubt a privilege. I feel very thankful.

The significance of scientific research for a country's cultural and material development and for international co-operation is now generally recognized. The role that the Bank of Sweden Tercentenary Foundation will play in the future will be increasingly important. I am certain that the Foundation's Board of Directors and its office staff, with my successor **Dan Brändström** as managing director, will play that part in a committed and competent way.

Stockholm, January 1993



Nils-Eric Svensson

## Operations in support of research

The Bank of Sweden Tercentenary Foundation supports advanced research in all scientific disciplines. In general, this has been done up to now by awarding project grants to individual researchers (or groups of researchers) who have applied for funds. Ever since the inception of the Foundation, a certain preference has been shown to research in social science and the humanities. Nearly 50% of the available funds were allotted to social science projects in 1992, 20% to the humanities and the remainder to research in medicine, natural science and technology.

In the first place, priority is given to projects whose requirements are not met normally in other ways, for example, by means of grants from state research councils or other public authorities, all of which operate within relatively well-defined sectors.

The Foundation is interested, among other things, in multidisciplinary or interdisciplinary research and projects in which researchers from different disciplines, faculties, localities or countries collaborate. The Foundation's catalogue of grants awarded to date shows many examples of precisely such research projects.

### Procedure

The Board of Directors makes decisions about the award of grants by the Foundation. Incoming applications have previously been assessed and ranked in order of priority by one or generally more committees (*preparatory committees*). Board members and deputy members as well as external scientific experts serve on these committees. As a rule, the applications have also been assessed by one or more external experts in Sweden or abroad.

Each application is assessed in the first place according to international standards as well as on the basis of intra- and extra-scientific criteria. Two main questions are pursued thoroughly before a decision is taken:

- Is the proposed research a case of advanced research?
  - Is the research in question of importance to society?
- Decisions about grants for new projects are taken in two stages:

- 1) Assessments are based on applications presenting brief overviews, or **project outlines**. The preparatory committees then select the applications which are considered to show the highest scientific quality, to be of very great interest to the Foundation, and to have been prepared by scientists adjudged to be competent and suitable to conduct the project in question. These researchers are then given an opportunity to submit complete applications. Other applications (project outlines) are rejected.
- 2) In the second stage, **complete applications** are assessed and arranged in order of priority (as a rule after examination by external experts) before the final ruling by the Board.

Applications relating to research that is ethically questionable are evaluated by observing the same criteria and following the same method as the state research councils.

In certain areas, which are regarded as important but which have not received sufficient attention, the Foundation sometimes appoints special *sector committees*. The task of these committees is to review research needs, encourage scientific research and promote exchange of information. These committees consist of researchers from disciplines of importance for the area as well as representatives of disciplines of importance to society. The work of these committees may be described as competent preparatory research. These activities cease when sufficient attention has been gained from the research community and/or from the authorities which are responsible for providing resources on an ongoing basis to the area in question.

The Foundation also arranges conferences or symposiums (occasionally in collabor-

ation with some other research-promoting agency in or outside Sweden) for the purpose of presenting or reviewing the state of knowledge in a certain area or for identifying research needs.

The Foundation has an extensive range of contacts with foreign foundations, which, in recent years, have predominantly been European organizations.

### Research grants

The Foundation approved 196 project grants during the year as well as travel grants, additional salary costs, administrative fees, value added tax, etc., totalling SEK 71.4 m. (table 1, page 43). As a rule, the majority of these grants were administered by state universities and colleges. For these services, the Foundation paid an administrative fee of 3% for older grants and an overhead charge of 13.6% for grants approved after January 1, 1990. Grants disbursed after July 1, 1991 have additionally incurred a supplementary charge of nearly 9.9% for value added tax, calculated on the project grant. For new grants, which are administered by state university departments under the Ministry of Education and Cultural Affairs, the Foundation must now also expect to pay a **supplementary charge of 23.5%** on the amounts calculated for the research projects per se.

The values shown in the table include value added tax and overhead charges for grants approved after July 1, 1991. In the case of older grants, they are shown as additions to the table (SEK 2.1 m.). To defray the two supplementary charges mentioned above, the Foundation had to disburse SEK 13 m. during the year. If this amount could have been awarded exclusively for research, about 35 additional projects of average size would have received grants during the year.

If fees for vetting by experts and costs of providing certain information are added to the total in the table, the Foundation's grants for research amounted to SEK 72.3 m. (see note 7, page 21).

New projects for which grants were approved during the year are described in a special section headed "New research projects in 1992" (pages 29-41).

Approved grants are utilized in accordance with special conditions that are stated in the contract with each recipient. As previously stated, the majority of grants are administered by state educational institutions, which also act as the employers of the persons paid from the grants.

In the section entitled "Statistical information on research grants" (pages 42-44) certain data are reported concerning the applications dealt with and the grants awarded. One-fifth of research grants approved in 1992 were awarded for new projects (table 2, page 43).

Of the combined amount sought for new projects, it was possible to award 6.2% only. The corresponding proportions during the preceding four years are shown in table 3 (page 44). Competition for grants from The Bank of Sweden Tercentenary Foundation for new projects has intensified considerably in recent years and is now very keen. Judging from available information, the competition is tougher than in the case of any other agency for supporting research.

In constant monetary value, the average size of the *new* grants approved was somewhat larger than in the past few years. On the other hand, the size of continuation grants has decreased. However, if a deduction is made for overhead charges and value added tax, considerably smaller average amounts have been awarded direct to the research projects.

### Exchange of information, follow-up, etc.

Many of the research projects supported by the Foundation shed light on problems of general social interest. Thus, it is important that, if possible, the findings should also be made known to society outside the research community and be the subject of discussion, critical review and utilization.

As a rule, research results cannot be translated immediately into concrete practical action or production. However, they are of great importance as starting-points for, or components of, serious work geared to development and reform. Accordingly, it is important that persons who have responsibility for such work are not simply informed about what is being done. They must also be encouraged to play an active part in seeking, transmitting or utilizing the products of the research work. Conversely, those who represent research should be encouraged in turn to acquaint themselves with the problems that exist and are being voiced outside their circle. Agencies that support research can, and should, take part in facilitating such exchange of information.

Several activities of a national as well as an international character were carried out during the year with a view to following and spreading knowledge about the research that is supported and to stimulating an exchange of information about research results between various groups in society. Some examples will be given.

In the series of lectures arranged for members of parliament by the sector committee for research on parliamentary function and procedure, SOCIAL MATTERS IN A RESEARCH PERSPECTIVE, three meetings were organized in the Parliament Buildings. All were very well-attended.

- On February 25, Professor **Erik Dahmén** spoke on "The dilemma of the mixed economy. The past, present and future role of the state"; on May 5, Professor **Sven Tägil**, Assistant Professor **Kristian Gerner** and Dr **Martin Matinez y Riqué** on "Europe today – disintegration in the east, integration in the west?"; and on December 1, Professor **Kent Asp** on "'Mediacracy' – Media, power, democracy".
- Further, on November 6, the sector committee arranged a half-day seminar on the theme "Sweden meets EC law", featuring Attorney **Karsten Hagel-Sørensen** and Undersecretary for Legal Affairs **Pernilla Lindh** as opening speakers, and Members of Parliament **Nic Grönvall** and **Bengt Harding Olsson** and Professors **Kjell Åke Modéer** and **Olof Ruin** as commentators. The seminar was conducted by **Thage G Peterson**. Among those who took part in the seminar were most of the members of the Parliamentary Standing Committees on the Constitution, Tax, Administration of Justice, Laws, Foreign Affairs, Economic Affairs, and the EEA
- The sector committee also attended to the preparation of the manuscript for a new edition of the book *Riksdagen genom tiderna* (The Riksdag through the ages).

On March 25, the sector committee for comparative research on social changes arranged a seminar on the study SCHOOLING IN MODERN EUROPEAN SOCIETY, financed by the Foundation. The study, carried out on the initiative of Academia Europaea, was presented by two of the authors – Professor **Torsten Husén** and Dr **Albert Tuijnman** and was commented on by ex-Minister **Bengt Göransson**, Dr **Kerstin Keen** and Professor **Hans L Zetterberg**. The seminar was conducted by Board Chairman **Kjell Härnqvist** and attended by most of the members of the Parliamentary Standing Committees on Education, Foreign Affairs, Culture, and the Labour Market, and also by representatives of the government, public authorities and researchers in the field under discussion.

In 1992, the Foundation decided jointly with a number of other European foundations to take part in setting up, and providing finance over a five-year period for, an international research centre in Hungary, **Collegium Budapest**. The activities at this centre will be focused primarily on research on the legal systems in the new Europe, the pattern of migration, matters related to refugees and minorities, problems related to the transition from a centrally planned economy to a market economy, environmental matters, etc.

As in previous years, several of the recipients of grants from the Foundation were allotted funds to enable them to present and discuss their projects and research results at foreign institutions or at international scientific symposia.

As usual, information was exchanged with foreign research foundations. A number of contacts between individual researchers or groups of researchers were arranged as a

result. For example, through its participation in the European Foundation Centre in Brussels, the Foundation was able to widen its contacts with corresponding agencies in Eastern Europe, many of which are in the process of formation.

Under the terms of the mutual agreement concluded with the Alexander von Humboldt Foundation, the first recipient of the Foundation's Research Prize for German Scientists – Professor **Horst Ahlbach** – engaged in research at the Department of Business Studies, University of Uppsala.

Since 1966, the Foundation has taken part in financing the Nobel Foundation's symposiums. This was initially done by providing annual grants. The symposium activities can now be financed entirely by means of the return on a special symposium fund in the Nobel Foundation. A start was made in 1979 to build up this fund through a basic endowment in the form of a one-time three-year grant from The Bank of Sweden Tercentenary Foundation, through contributions and royalties from the Nobel Foundation's own informational activities and through four annual grants from the Knut and Alice Wallenberg Foundation. The symposium activity is conducted by a committee comprising representatives of the five Nobel Committees, the Economics Prize Committee, The Bank of Sweden Tercentenary Foundation and the Wallenberg Foundation, with the president of the Nobel Foundation as chairman. More than 90 Nobel symposia have been held up to now. They were devoted to areas of scientific breakthroughs of central cultural or social importance and have acquired a very high international reputation.

In 1988, in order to encourage Swedish researchers to write articles for the popular science press, The Bank of Sweden Tercentenary Foundation instituted two prizes for the year's best articles in the magazine *Forskning och Framsteg* (Research and Progress) in the following fields:

*Social science – Behavioural science – Humanities*

and

*Natural science – Medicine – Technology – Agronomy*

The prizes (SEK 25,000 each) for the best articles in 1991 were awarded on March 19, 1992 at a meeting attended by the Board of Directors and a number of specially invited guests to

**Peter Esaiasson** Assistant Professor of Political Science,

for his article "Partiledarna's kampanjer: från slutna rum till TV-jippon" (The party leaders' campaigns: from closed rooms to TV publicity stunts) and to

**Erik Johansson** Assistant Professor of Physics,

for his article "Nu vet vi att universum Är uppbyggt av tre familjer" (We now know that the universe consists of three families).

The prize-winners were selected by members of the Foundation's Board of Directors – in the former case, by Berit Löfstedt, Walter Korpi, Getrud Sigurdson and Lars-Göran Stenelo (chairman); and, in the latter case, by Barbara Cannon, Viola Furubjelke, Bengt Pernow (chairman) and Rune Rydén.

As before, the Foundation's preparatory committees paid a number of visits to grant recipients. In addition to reviews and discussions related to individual research projects, the committee members try on such occasions to acquire knowledge about the conditions and opportunities prevailing in research and researcher training.

Individual researchers or groups of researchers are often invited to the Foundation's offices to present their ongoing projects and have discussions. At Board meetings, the scientists among the members regularly present contemporary areas of research.

The activities exemplified above form a regular and natural part of the Foundation's efforts to promote contacts with international research and to stimulate the exchange of information between researchers engaged in different areas as well as between researchers and sections of society outside their circle. As stated earlier, the object is

naturally to try to assist in promoting understanding of, and knowledge about, the prerequisites for research, the work methods employed in it and its results and thereby to provide a basis for assessing the efforts that have been, and are being, made with the help of the available research funds. The meetings attended by decision-makers, representatives of various public interests and researchers are considered particularly valuable.

The Bank of Sweden Tercentenary Foundation is actively engaged in *all* scientific fields. The range of competence among the researchers on the Board and on the preparatory committees illustrates this fact. Besides, the Board includes persons with expert economic and political knowledge. Because of the range of competence among its members, the Board represents an unusually large field of experience and thereby has a unique position as an all-round contact agency between different areas of research as well as between research and important public interests.

### *Donations*

In the currently valid statutes (adopted as of January 1, 1988) it is stated that "there is nothing to prevent additions to the Foundation's funds in the form of donations from individual persons."

The Foundation received an endowment during the year from **Erik Rönberg**, farmer, of Fagerdal, Hammerdal, in the form of shares with a market value of SEK 6.5 m. The donated shares will form part of the Foundation's total assets and will be managed together with the Foundation's other assets. The principles generally applied by the Foundation to allocations to capital (so that it maintains its real value) will also apply to this endowment (see note 18 in the section entitled "Financial administration"). The annual return on the endowment in proportion to the stated management principle will be awarded by the Foundation "in the form of three-year post-doctoral research scholarships to young researchers for studies of ageing and age-related diseases at the Karolinska Institute (KI) in Stockholm".

The first scholarship from Erik Rönberg's endowment is expected to be awarded during the spring of 1993.

The proposal for forms of expressing thanks to Nils-Eric Svensson were presented and approved at the Board meeting on October 22, 1992. The proposal included the institution of a fund bearing his name and arrangement of an international symposium on the theme "Research Funding and Quality Assurance".

In the appeal for **Nils-Eric Svensson's Fund** that was sent to institutions, research councils, foundations, societies and individuals, it was stated that the Bank of Sweden Tercentenary Foundation would "match" the collected funds by a contribution of its own.

The purpose of the fund is, through the award of scholarships, to promote mutual exchange of researchers in Europe. Nils-Eric Svensson's Fund will enable young postdoctoral Swedish researchers to travel and spend a short period in an outstanding European research environment. But the fund will also enable young European researchers to engage in research at Swedish research institutes. The way in which scholarships are to be awarded will be worked out during 1993.

Further donations to the Foundation for competent support for scientific research will be welcomed. Professional, inexpensive and effective fund management as well as professional and impartial awards of grants can be guaranteed. The joint management of small donations in larger funds has been practised for several years in Finland, France and Germany, among other countries. The experience gained from this activity has been extremely favourable.



## Financial administration

### *Foundation's investment activities*

The weak economic trend in the OECD area persisted during 1992. The U.S. economy appears to have entered a growth phase although the upturn has been sluggish and full of disappointments. In Japan and continental Europe, on the other hand, economic activity declined further. In Germany, the word *recession* is being heard increasingly. Total production in the Swedish economy decreased for the second year in succession. At the same time, the rate of inflation was low. In Sweden, the consumer price index rose only 1.9% between December 1991 and December 1992, or 2.2% as a yearly average.

The year 1992 was also marked by high real interest rates and a continued fall in prices in a number of asset markets, including the real-estate market. The exchange-rate policies of West European countries were subjected to great strains in 1992, with – at any rate, partial – collapses as a result.

Finland decided in the beginning of September to let the markka float. The U.K., Italy and others followed suit soon afterwards. Norway gave up on December 10.

On November 19, 1992, Sweden abandoned its attempts to defend a fixed rate of exchange for the krona and allowed it to float against other currencies. Defence of the fixed exchange rate for the Swedish krona had resulted in sharply increased interest rates. For some days in September, the Bank of Sweden's marginal interest rate rose as high as 500%.

Up to November 19, 1992, Swedish stock-market prices had fallen by about 27% since year-end 1991. The decision to let the Swedish krona float – followed by sharp depreciation – led to a very strong stock-market upturn. Thus, over the year as a whole, the index of share prices remained approximately unchanged. Most foreign stock markets also showed a weak or poor trend in 1992.

The Foundation continued to reduce its Swedish shareholdings somewhat during the greater part of 1992. In connection with the release of the Swedish krona from a fixed exchange rate, the Foundation sold a large part of its foreign securities portfolio. Thus, the Foundation sold all its German and Japanese securities. Then, at the same time, the Foundation increased its Swedish shareholdings. Over the year as a whole, the Foundation's total shareholding decreased from about SEK 400 m. at the end of 1991 to about SEK 350 m. at the end of 1992 (measured as acquisition values).

The Foundation did not acquire or sell any real estate in 1992.

Instead, the Foundation increased its holding of Swedish interest-bearing assets. The bond portfolio increased from SEK 789 m. at the end of 1991 to SEK 900 m. at the end of 1992 (measured as acquisition values). Bank funds and short-term commercial paper increased during the same period to SEK 469 m.

Of the Foundation's total assets, shares accounted for about 13% and real estate for about 16% at the end of 1992. The remainder, about 71%, consisted of Swedish interest-bearing assets.

### *Book profit*

The result of the Foundation's investment activity in 1992 is reflected in the income statement. In the income statement, the total of all income, including realized capital gains/losses on the sale of various securities, less current expenses, is termed "book profit before grants for research". This book profit amounts to SEK 103 m. for 1992, down from the 1991 figure of SEK 149 m.

The main reason for the lower book profit is that, for the year 1992, the Foundation felt called upon to make an extraordinary write-down of the book value of its property on Kungsträdgårdsgatan in Stockholm. The market valuation of the property, performed on behalf of the Foundation, was substantially less than the book value. Nor

does it appear likely that there will be a rapid rise in value. The extraordinary write-down amounts to SEK 63 m.

Interest income, SEK 149 m., forms incomparably the largest portion of the book profit.

The reduction of the shareholding is reflected in the fact that dividends were somewhat lower than in 1991. Premium income from the call options issued by the Foundation was also somewhat less in 1992 than in the preceding year.

The income statement also includes income from, and the costs of, the Foundation's holdings of real estate. The largest cost item in this connection is the above-mentioned write-down. Together with depreciation according to plan, depreciation and write-downs total SEK 65 m. The second largest cost item consists of interest expense. The Adam och Eva properties were mortgaged for SEK 50 m. during the year. The Kungsträdgårdsgatan property in Stockholm and the Stortorget property in Malmö had been mortgaged earlier.

In 1992, sales of securities by the Foundation resulted in realized capital gains of SEK 40 m. and realized capital losses of SEK 25 m., that is, a net gain of SEK 15 m.

A sum of SEK 31 m. remains from the year's book profit of SEK 103 m. after grants approved for research. This amount was transferred in its entirety to the profit regulation reserve.

The Foundation's equity capital also increased in 1992 as the result of an external donation of SEK 6,521,000 from Erik Rönberg, farmer (see also page 13). A sum of SEK 210,000 also flowed into Nils-Eric Svensson's Fund during the year (see also page 13). These funds have been added to the Foundation's equity capital.

### *Real profit*

The current return on shares and real estate is normally relatively low. The purpose of investing in such assets is to share in growth in value. However, at times, the investor meets with a diminution in value. Accordingly, the accounts for a financial institution like the Bank of Sweden Tercentenary Foundation would be incomplete if they were not supplemented with the change in value of assets – "Increase/decrease in unrealized capital gains/losses".

In principle, the Foundation has assets of three kinds that are exposed to changes in value – bonds, shares and real estate. Moreover, certain parts of the Foundation's assets are denominated in foreign currency. Accordingly, changes in exchange rates also affect the value of the Foundation's assets expressed in Swedish kronor.

The net of the changes in unrealized capital gains/losses in 1992 turned out to be a plus of SEK 78 m.

The surplus value (difference between the market value and the book value = acquisition value) in the bond portfolio increased by SEK 18 m. The deficit value in the share portfolio decreased at the same time by SEK 13 m.

On the other hand, the value of the Foundation's Swedish real estate continued to fall. As previously stated, most of the decrease in value has already been taken in the book profit through an extraordinary write-down of SEK 63 m. The Foundation's two properties in Atlanta, Georgia, in the U.S. largely maintained their value in dollar terms in 1992. However, the sharp depreciation of the Swedish krona since November 19 has led to a very marked increase in value in terms of Swedish kronor. On the whole, this means that the deficit value (difference between the market value and the book value) of the Foundation's real estate fell by SEK 52 m. in 1992.

In 1992, as before, the Foundation also made an explicit allocation in the real financial statements corresponding to the deterioration in monetary value. For 1992, this allocation was SEK 42 m.

Thus, SEK 67 m. was added to the profit regulation reserve in the real financial statements. The previously accumulated deficit of SEK 145 m. in the profit regulation reserve thereby decreased to SEK 78 m.

### Performance

A compilation, consisting solely of financial items, can be made from the income statement (and the various notes). These items have been grouped in a table by type of asset (see page 17).

The Foundation's interest-bearing assets gave a positive result of SEK 168 m. for 1992 (including the unrealized change in value in the bond portfolio). In relation to the interest-bearing assets at the beginning of the year, this yields "interest" of about 14%.

In the same way, the management of stocks by the Foundation gives a positive result of SEK 27 m. Calculated on the size of the portfolio at the beginning of the year, this gives "interest" of just under 9%.

Both in 1991 and in 1992, the Foundation's real-estate holdings had a negative effect on its economy. Towards the end of the year, the Foundation had all its real estate valued by external valuation firms (with the exception of the properties Adam och Eva 9 and 13, which are still largely under construction).

The Kungsträdgårdsgatan property in Stockholm has been assigned a much lower market value than that determined towards the end of 1991. The market value of the Stortorget property in Malmö has decreased somewhat. The two Atlantå properties have largely maintained their value, compared with the year-earlier figure. However, the very strong upturn in the dollar rate towards the end of the year results in a substantial increase in value in terms of Swedish kronor. A negative result of SEK 5 m. for real estate is shown in the table.

The total result of the Foundation's financial activities is shown in the table at SEK 190 m. This is practically the same result as in 1991. The financial result has to cover research grants of SEK 72 m., administrative expenses of about SEK 8 m., as well as an increase of SEK 42 m. in the donation capital in order to keep abreast of inflation. The remainder, SEK 67 m., can then be added to the profit regulation reserve. In 1991, a similar financial result led to a greater deficit in the profit regulation reserve. The allocation required to keep pace with inflation in that year was SEK 166 m.

### Financial result (SEK m.)

Asset	Income/expense	1992	1991
Bank funds	Interest income	8	16
Commercial paper	Interest income	36	37
Bonds	Interest income	105	102
	Realized losses	-	-3
	Realized gains	1	27
	Change in unrealized gains	18	37
		<hr/>	<hr/>
		168	216
Shares, convertibles and options	Dividends and interest	7	9
	Realized gains, shares	33	20
	Realized losses, shares	-24	-48
	Change in unrealized losses, shares	13	50
	Option premiums	1	4
	Realized gains, options	-	1
	Change in unrealized gains, options	-	-1
	Realized losses, options	-1	-
	Change in unrealized losses, options	-4	-
	Realized gains, currencies	5	-
	Financial expenses	-3	-5
		<hr/>	<hr/>
		27	30
Real estate and shares in real-estate companies	Income	23	15
	Interest expense	-9	-12
	Depreciation/write-downs	-66	-2
	Other expenses	-5	-4
	Change in unrealized losses	52	-62
		<hr/>	<hr/>
		-5	-65
		<hr/>	<hr/>
		190	181

## Income statement (SEK 000s)

	Note	1992	1991
<i>Book profit</i>			
Interest income	1	149,529	155,633
Dividends		6,514	8,430
Option premiums		1,328	4,484
Income, real estate		22,793	14,726
Interest expense, real estate		-9,361	-11,507
Depreciation, real estate	2	-2,593	-1,764
Write-down, real estate	2	-63,000	
Other expenses, real estate		-4,891	-3,830
Realized capital gains	3	40,058	47,895
Realized capital losses	3	-25,431	-51,518
Other income	4	398	198
Financial costs	5	-3,194	-5,386
Administrative expenses	6	-8,589	-7,875
<i>Book profit before award of research grants</i>		<b>103,561</b>	<b>149,486</b>
Grants approved for research	7	-72,347	-72,475
<i>Book increase in equity capital after award of research grants</i>		<b>31,214</b>	<b>77,011</b>
Increase/decrease in unrealized capital gains/losses	8	78,290	23,985
Allocation for maintenance of real value of donation capital	9, 18	-42,507	-165,782
<i>Real increase/decrease in equity capital after approval of grants for research</i>	18	<b>66,997</b>	<b>-64,786</b>

## Balance sheet (SEK 000s)

	Note	Dec. 31, 1992		Dec. 31, 1991	
		Book value	Market value	Book value	Market value
<i>Assets</i>					
Liquid assets		105,922	105,922	83,850	83,850
Commercial paper etc.	10	362,872	362,872	301,330	301,330
Bonds	11	900,365	942,152	789,377	813,243
Shares and convertibles	12	348,704	278,520	400,327	317,466
Shares in real-estate companies	13	61,370	64,019	61,370	51,901
Real estate	13, 14	279,080	270,000	344,673	295,500
Accrued interest income		52,973	52,973	45,675	45,675
Securities sold		3,324	3,324	-	-
Accrued expenses and prepaid income		284	284	-	-
Other receivables		1,260	1,260	1,396	1,396
<i>Total assets</i>		<b>2,116,154</b>	<b>2,081,326</b>	<b>2,027,998</b>	<b>1,910,361</b>
<i>Liabilities and equity capital</i>					
<i>Liabilities</i>					
Prepaid option premiums	15	660	4,723	753	297
Accrued expenses and prepaid income	16	8,431	8,431	5,185	5,185
Other current liabilities	17	1,638	1,638	1,751	1,751
Grants approved but not yet disbursed		37,240	37,240	40,058	40,058
Secured loans		128,457	128,457	78,468	78,468
<i>Total liabilities</i>		<b>176,426</b>	<b>180,489</b>	<b>126,215</b>	<b>125,759</b>
<i>Equity capital</i>					
Donation capital	18	1,506,731	-	1,500,000	-
Donation capital indexed upwards	9	-	1,978,660	-	1,929,422
Profit regulation reserve		432,997	-77,823	401,783	-144,820
<i>Total equity capital</i>		<b>1,939,728</b>	<b>1,900,837</b>	<b>1,901,783</b>	<b>1,784,602</b>
<i>Total liabilities and equity capital</i>		<b>2,116,154</b>	<b>2,081,326</b>	<b>2,027,998</b>	<b>1,910,361</b>
<i>Pledged assets</i>					
Shares	15	29,543		29,115	
Real-estate mortgages		128,000		78,000	
<i>Contingent liabilities</i>					
Pension obligation		2,844		-	

**Notes** (amounts in SEK 000s)

Note 1	Interest income	1992	1991
	Bank	7,891	16,021
	Commercial paper	35,928	37,429
	Bonds	105,275	101,914
	Convertibles	435	269
		<b>149,529</b>	<b>155,633</b>

**Note 2 Depreciation**

Depreciation according to plan is based on acquisition values and is spread over the calculated economic life. Depreciation on buildings is effected at the rate of 2% each year.

For 1992, an extraordinary write-down of SEK 63 m. was made in the value of the Styrpinnen 23 property in Stockholm in order to eliminate the difference between the book value and the estimated market value. See also note 14 and the comment in the text on page 14.

**Note 3 Realized capital gains/losses**

	1992		1991	
	Gain	Loss	Gain	Loss
Bonds	1,190	—	26,678	2,953
Shares and convertibles	33,442	24,471	20,145	48,517
Options	443	960	1,072	—
Currencies	4,983	—	—	48
	<b>40,058</b>	<b>25,431</b>	<b>47,895</b>	<b>51,518</b>

Transaction costs in the form of turnover tax and brokerage fees have not been charged to realized capital gains/losses. These costs are reported separately. See note 5.

Note 4	Other revenues	1992	1991
	Revenues from publications	125	125
	Unutilized grants	273	73
		<b>398</b>	<b>198</b>

Note 5	Financial costs	1992	1991
	Turnover tax	—	2,297
	Brokerage fees	2,682	2,609
	Safe custody fee	163	197
	Stock-exchange and Reuter screens	349	283
		<b>3,194</b>	<b>5,386</b>

Note 6	Administrative expenses	1992	1991
	Salaries and other remuneration to		
	– the Board and Managing Director	1,454	1,251
	– other staff	2,337	2,220
	Payroll costs	1,314	1,392
	Pension fees	461	134
	Audit and auditing consultation	380	224
	Other consultancy services	168	167
	Costs of premises	1,541	1,432
	Travel and allowances, office and Board	406	522
	Fixtures and fittings	73	80
	Other	455	453
		<b>8,589</b>	<b>7,875</b>

Average number of employees during the year

Women	6	6
Men	3	3
Total	9	9

Procurement of machinery and equipment is booked as expenses.

Note 7	Grants for research	1992	1991
	Project grants*	71,353	71,583
	Vetting by experts	342	397
	Conferences, information, etc	652	495
		<b>72,347</b>	<b>72,475</b>

\* The amount includes overhead charges of SEK 5,921,000 (6,861,000) paid to state universities and value added tax of SEK 7,090,000 (3,574,000).

**Note 8 Change in unrealized capital gains/losses**

	1992		1991		Change
	Gain	Losses	Gain	Losses	
Bonds	41,787	—	23,866	—	+17,921
Shares and convertibles	—	70,184	—	82,861	+12,677
Options	—	4,063	456	—	–4,519
Real estate and shares in real-estate companies	—	6,431	—	58,642	+52,211
	<b>41,787</b>	<b>80,678</b>	<b>24,322</b>	<b>141,503</b>	<b>+78,290</b>

**Note 9 Allocation for maintenance of real value of donation capital**

The average value of the consumer price index in 1992 was 232.3. The corresponding value of the index for 1991 was 227.2. Thus, the consumer price index rose 2.2 percent between 1992 and 1991.

The allocation for maintenance of the real value of the donation capital is given by

$1,929,422 \times 0,022 = \text{SEK } 42,447,000$  for the donation capital at the beginning of the year, and

$6,521 \times 0,022 \times 5/12 = \text{SEK } 60,000$  for Erik Rönnerberg's endowment, that is, a total of SEK 42,507,000.

See also the comments in the text on page 13 and 17.

**Note 10 Commercial paper etc.**

	Book value	Nominal value
Treasury bills	130,527	140,000
Commercial paper	132,293	135,000
Bank and mortgage institution subordinated loans in the form of		
– Floating-Rate-Note (FRN) loans	50,052	50,000
– Variable-Rate-Note (VRN) loans	50,000	50,000
	<b>362,872</b>	<b>375,000</b>

At the end of 1991, the Foundation held short-term commercial paper, including FRN and VRN loans, with a book value of SEK 301,330,000 (nominal value SEK 310,000,000).

In the Balance Sheet, the Foundation has chosen to report book (acquisition) values as market values in the case of the above short-term securities.

**Note 11 Bonds**

	Nominal value	Book value	Market value
Urban mortgage bank bonds			
Market maturing in			
1993	50,000	49,854	50,048
1994	325,000	307,240	326,874
1995	120,000	108,724	119,978
1996	300,000	306,078	312,902
1997	80,000	78,975	82,292
1999	50,000	49,494	50,058
	<b>925,000</b>	<b>900,365</b>	<b>942,152</b>

At the end of 1991, the Foundation held bonds (exclusively housing bonds) with a book value of SEK 789,377,000 (nominal value SEK 815,000,000).

**Note 12 Shares**

Shares	Number	Nominal value	Acquisition-value	Market value	Currency
AGA A-restr.	22,040	551	6,446	6,876	
AGA A-unrestr.	450	11	135	141	
AGA B-restr.	48,786	1,220	13,716	15,172	
Aritmos	40,000	400	5,420	3,320	
Asea A-unrestr.	70,552	3,528	28,550	26,739	
Ericsson B-unrestr.	140,410	1,404	23,384	25,976	
Esselte A-unrestr.	10,000	125	909	930	
Gambro B-restr.	4,400	88	1,219	1,421	
Gambro B-unrestr.	14,000	280	3,878	4,480	
Hasselfors B	36,000	900	6,840	3,024	
Kinnevik A	5,100	51	816	444	
Kinnevik B	27,480	275	4,371	2,034	
Korsnäs A	29,000	290	2,630	2,465	
Korsnäs B	26,600	266	2,415	2,128	
MODO Kvb* C	38,651	3,865	11,848	7,962	
Perstorp-restr.	57,750	578	14,346	11,492	
Skanska-restr.	95,100	951	25,323	7,656	
Skoogs	67,500	1,688	7,934	1,418	
Stora A-unrestr.	10,000	250	2,770	2,820	
SSAB A-unrestr.	49,800	4,980	5,062	5,727	
SSAB B-unrestr.	200	20	17	22	

\* Convertible participating debenture.

**Note 12 Shares**

Shares	Number	Nominal value	Acquisition-value	Market value	Currency
Sydskraft A	5,400	54	767	540	
Sydskraft C	34,600	346	4,859	3,460	
Volvo B-unrestr.	2,500	63	813	853	
Volvo B-restr.	17,500	438	5,287	5,950	
Östgötabanken	500,000	5,000	6,615	8,250	
<i>Total Swedish shares</i>			<b>186,370</b>	<b>151,300</b>	<b>SEK</b>

**Convertibles**

	Nominal value	Acquisition value	Market value	Currency
AGA	173	259	241	
Investor	391	395	380	
<i>Total convertibles</i>		<b>654</b>	<b>621</b>	<b>SEK</b>

**Foreign shares**

	Number	Nominal value	Acquisition value	Market value	Currency
Bally Int.	100,000	67	700	788	USD
Diamond Ent.	942,000	–	840	324	USD
Digital Products	130,000	1	1,575	439	USD
Great A.U.	850	–	510	383	USD
Great A.S.	150,000	2	525	263	USL
International					
Thoroughbred	10,095	–	54	26	USD
Invacare	5,000	–	151	121	USD
Kennametal	28,000	35	1,018	798	USD
Lidak	500,000	13	875	469	USD
Primedex	250,000	3	1,738	1,281	USD
Parker Drilling	150,000	25	1,278	713	USD
Praxair	48,000	–	800	804	USD
Site B M	300,000	–	1,768	319	USD
Smith Corona	50,000	1	900	350	USD
Sprint	70,000	175	1,967	1,785	USD
Temple	15,000	15	788	773	USD
Tenneco	10,000	50	410	406	USD
Treats Int.	350,000	–	1,350	525	USD
Trinity B	30,000	–	143	128	USD
Trinity B Wts	110,000	1	248	220	USD
Bergesen B	50,000	125	9,507	4,600	NOK
Alcatel	8,000	320	4,736	5,536	FRF
Bouygues	7,000	350	4,718	3,962	FRF
CCF	25,000	625	4,775	5,475	FRF
Lafarge	12,000	300	4,682	4,080	FRF
Legris	8,500	170	4,607	1,114	FRF
LVMH	1,200	60	4,716	4,426	FRF
Paris Dev.	50,000	5,000	5,000	4,750	FRF
Pechiney Int.	20,000	2,000	4,030	4,180	FRF
Fokker	34,000	340	1,599	527	NLG
<i>Total foreign shares</i>			<b>161,680</b>	<b>126,599</b>	<b>SEK</b>
<i>Total Swedis shares and convertibles</i>			<b>187,024</b>	<b>151,921</b>	<b>SEK</b>
<i>Total shares and convertibles</i>			<b>348,704</b>	<b>278,520</b>	<b>SEK</b>

**Note 13 Real estate and shares in real-estate companies**

Real-estate company	Foundation's share	Book value	Market value
Peachtree Place, L.P. USA	40 %	27,802	26,733
Reindeer Realty, L.P. USA	90 %	33,568	37,286
<i>Subtotal</i>		<b>61,370</b>	<b>64,019</b>
<b>Real estate</b>			
Styrpinnen 23, Stockholm	100 %	50,643	48,000
Claus Mortensen 24, Malmö	50 %	47,262	42,000
Adam och Eva 9 och 13, Stockholm	50 %	181,175	180,000
<i>Subtotal</i>		<b>279,080</b>	<b>270,000</b>
<b>Total</b>		<b>340,450</b>	<b>334,019</b>

The properties Adam och Eva 9 och 13 have been assigned a market value equal to the acquisition value since the properties still comprise principally land and ongoing construction work.

For other properties and shares in real-estate companies, the market values are based on external valuations performed by reputable valuation firms.

**Note 14 Real estate**

	1992	1991
Acquisition value, buildings	217,599	217,599
Accumulated depreciation according to plan	-4,357	-1,764
Extraordinary write-down, buildings	-44,000	
<i>Buildings, book value</i>	<b>169,242</b>	<b>215,835</b>
Acquisition value, land	128,838	128,838
Extraordinary write-down, land	-19,000	-
<i>Land, book value</i>	<b>109,838</b>	<b>128,838</b>
<b>Total book value</b>	<b>279,080</b>	<b>344,673</b>
<i>Tax-assessment value</i>		
Buildings	70,730	69,030
Land	36,790	35,890
<b>Total</b>	<b>107,520</b>	<b>104,920</b>

The market values of the properties are shown in note 13. See also note 2.

**Note 15 Prepaid option premiums**

Underlying shares	Redemption price	Redemption date	No. of shares	Book value of premiums received	Market value of options
ASEA A-restr.	370	Feb. '93	15,000	185	450
Ericsson B-unrestr. 120		Jan. '93	16,000	91	1,088
Ericsson B-unrestr. 130		Jan. '93	21,000	79	1,218
Ericsson B-unrestr. 140		Jan. '93	15,000	58	720
Ericsson B-unrestr. 140		Apr. '93	5,000	35	265
Ericsson B-unrestr. 150		Apr. '93	4,000	42	172
Skanska B-restr.	65	Jan. '93	30,000	80	570
Skanska B-restr.	70	Jan. '93	10,000	55	140
Skanska B-restr.	75	Jan. '93	10,000	35	100
				<b>660</b>	<b>4,723</b>

In the event of redemption, the sales price of the shares amounts to SEK 17,000,000. The book value of these shares is SEK 29,543,000.

All options with redemption dates falling in January 1993 were redeemed after year-end 1992, a realization loss of SEK 11,824,000 being incurred.

**Note 16 Accrued expenses and prepaid income**

	1992	1991
Payroll costs	159	145
Special payroll tax on pension insurance premiums	122	48
Accrued interest on secured loans	1,276	671
Property tax	3,099	1,458
Cost of valuation, real estate	30	55
Prepaid interest income	321	-
Prepaid rental income	2,555	2,532
Holidays earned in advance but not utilized	80	52
Other accrued expenses	789	124
Mortgages	-	100
	<b>8,431</b>	<b>5,185</b>

**Note 17 Other current liabilities**

	1992	1991
Employees' tax at source	100	80
Value added tax owed	38	171
Land registration	1,500	1,500
	<b>1,638</b>	<b>1,751</b>

Note 18 **Equity capital**

<b>Nominal capital</b>	Donation- capital	Profit regulation reserve
Equity capital, Dec. 31, 1991	1,500,000	401,783
Erik Rönnerberg's endowment	6,521	—
Nils-Eric Svensson's Fund	210	—
Allocation for the year	—	31,214
Equity capital, Dec. 31, 1992	1,506,731	432,997
<b>Real capital</b>	Donation- capital	Profit regulation reserve
Equity capital, Dec. 31, 1991	1,929,422	-144,820
Erik Rönnerberg's endowment	6,521	—
Nils-Eric Svensson's Fund	210	—
Allocation for maintenance of real value of donation capital	42,507	—
Real increase in equity capital after approval of research grants	—	66,997
Equity capital, Dec. 31, 1992	1,978,660	-77,823

**Erik Rönnerberg's endowment**

The funds donated by Erik Rönnerberg to the Bank of Sweden Tercentenary Foundation are managed together with the Foundation's other assets and thereby form an integral part of the Foundation's income statement and balance sheet.

However, the return on the endowment will be devoted to a specific purpose. Accordingly, separate accounts are required in respect of the portion of the returns received by the Foundation that is regarded as being attributable to the endowment.

The endowment constitutes  $\frac{6521}{1,784,602 + 6,521} = 0,3641\%$

of the Foundation's total equity capital. Accordingly, of the total return received by the Foundation, before grants for research, 0.3641% thereof shall be considered to be attributable to the endowment.

The value of the endowment at year-end 1992 is shown below.

<b>Equity capital</b>	Donation capital	Profit regulation reserve	Totalt equity capital
Endowment	6,521	—	6,521
Allocation for the year (0,3641% x 103,561 x 5/12)	—	157	157
Equity capital, Dec. 31, 1992	6,521	157	6,678
<b>Real capital</b>	Donation capital	Profit regulation reserve	Totalt equity capital
Endowment	6,521	—	6,521
Allocation for maintenance of real value of donation capital (6,521 x 0,022 x 5/12)	60	—	60
Real increase in donation capital (0,3641 % x 139,344 x 5/12)	—	211	211
Equity capital, Dec. 31, 1992	6,581	211	6,792

Stockholm, February 8, 1993

Inge Jonsson Chairman	Lars Tobisson Deputy Chairman	Elving Andersson
Barbara Cannon	Lars Engwall	Lena Hjelm-Wallén
Arne Kjörnsberg	Berit Löfstedt	Bertil Persson
Åke Smids	Jarl Torbacke	Sten Wikander
Nils-Eric Svensson Managing Director up to Dec. 31, 1992 inclusive		Dan Brändström Managing Director as of Jan. 1, 1993

**Auditors Report**

We have examined the annual report, the accounting records and the administration by the board of directors and the managing director for the year 1992. The examination was conducted in accordance with generally accepted auditing standards.

Our examination did not call for any criticism of the annual report, the accounting records or the administration of the Foundation's business by the board of directors and the managing director. We consider the accounts to be correct and to have been prepared in accordance with generally accepted accounting principles.

Stockholm, February 9, 1993

Ernst & Young AB

Per Björngård  
Authorized Public Accountant

## New research projects in 1992

As in previous annual reports, summaries of the new research projects awarded grants during the year are given below (pages 29-41). The texts, written by the researchers themselves, are taken from the section headed "Summary of purpose, importance and implementation of the project" in the application forms for grants. The project titles are also taken from the same source.

The uneven figures stated for the grants are due to the fact that they include a supplementary charge for related costs (13.6%) and value added tax (9.9%).

A special list showing all projects granted awards by the Foundation throughout the period of operation, 1965-92, is obtainable from the Foundation's office.

## Business Administration

**Jannis Kallinikos, University of Uppsala**

**SEK 123,478**

Reg. no. 92/84

*Transactions and Dialogues: On Markets, Organizations and Networks.*

The purpose of the project is, through case studies, to try to attain an understanding of the way in which two contrasting cognitive domains – the numerical and the verbal – convey information to the economic and social players and the way in which they relate to the three main forms for coordination, i.e., market, organization and network.

**Per Olof Berg,**

*Copenhagen School of Economics & Business Administration*

**SEK 493,913**

Reg. no. 92/403

*Competitive environmental strategy: a study of companies with distinct ecological roles*

The link between business strategy and ecological disposition in the context of profoundly changing social and political demands upon firms. At the same time we have witnessed the evolution of "Green business" and "Green strategy" as a response to these demands.

In the study, it is assumed that the strategic approach to the natural environment, or ecosystem ("ecological disposition"), follows distinct (generic) patterns or "environmental strategies", which are more or less consistent with the business strategy of the company. This project is aimed at examining the causes and effects of these phases, and attempts to unite them within a model of changing ecological disposition which can be expected to give rise to new natural-environmental strategies and business forms in the future.

## Economics

**Lars-Gunnar Svensson, University of Lund**

**SEK 351,913**

Reg. no. 92/231

*Economic mechanisms*

The basic problem of the project is to analyse the mechanisms that implement a "desirable allocation of resources". More specifically, the possibility is considered of implementing tax systems based on individual characteristics rather than on individual earnings, the possibility for the principal to utilize information that the "types" of agents are uncorrelated, consequences of more general preferences than the "quasi-linear" and consequences of alternative "solution concepts".

**Sören Blomquist, University of Uppsala**

**SEK 216,087**

Reg. no. 92/254

*Effect of the tax reform on the labour supply*

Tax reforms have been implemented in a number of countries in recent years. An often cited motive is the desire to stimulate the labour supply. In this project we intend to study the extent to which the implemented tax reform has actually affected the labour supply. A very important part of the project is to develop an estimation method that uses less restrictive assumptions than previously used methods.



**Carl Hampus Lyttkens, University of Lund****SEK 185,217**

Reg. no. 92/261

*The economy of antiquity*

Many aspects of the economies in ancient times have been thoroughly discussed in classical research but the theoretical starting-points that are available in modern economic theory have not been utilized. The aim of this project is to increase understanding of the ancient societies with reference to analyses based on economic theory. The new institutional economics, as formulated by Douglass North (1981, 1990), has proved to be very fruitful.

**Eskil Wadensjö, University of Stockholm****SEK 150,000**

Reg. no. 92/383

*Ekonomisk Debatt Journal*

The journal *Ekonomisk Debatt* was instituted in 1973 by the Swedish Economic Society on the initiative of Professor Assar Lindbeck and Senior Economist Nils Lundgren to serve as a forum for economic debate independently of such state agencies as the Ministry of Finance and the National Institute of Economic Research and of various interest organizations.

*Ekonomisk Debatt* has a relatively wide circulation (2,300 subscribers). Its U.S. counterpart, the journal *Challenge* does not have an appreciably wider circulation despite a market that is enormously larger. In addition, a certain number of complimentary issues are sent to the press and other builders of opinion.

**Education****Jan-Eric Gustafsson, University of Gothenburg****SEK 345,739**

Reg. no. 92/197

*Validation of a hierarchical model for measurement of cognitive abilities*

The purpose of this project is to develop and validate a hierarchical, multidimensional model for the measurement of cognitive abilities. The dimensionality – age-related changes in structure and level of performance and relations to background – and criterion variables are then studied within hierarchical, confirmatory factor models.

**Psychology****Ingvar Lundberg, University of Umeå****SEK 185,217**

Reg. no. 92/68

*Reading ability in 26 countries – development and testing of structural and hierarchical models*

The purpose of the project is, in a comparative perspective, to survey the various components of reading skills. The project will make use of unique international survey material, collected by the International Association of the Evaluation of Educational Achievement (IEA), on the reading ability of schoolchildren in 26 countries. The results will identify various factors that can help in explaining variations in reading skills and reading habits between individuals, between schools and between countries.

Apart from contributing to international research in reading, the project is expected to lead to methodological contributions which can increase the exchange of knowledge gained from national and international evaluation studies in schools.

**Gunilla Bohlin, University of Uppsala****SEK 351,913**

Reg. no. 92/227

*Adjustment of children to their school situation and their early socio-emotional development*

The importance of psychological factors in adjustment to the school situation at junior level is relatively unresearched. The overall aim of the study is to identify such factors, partly in early socio-economic development and partly in the personality of the schoolchildren. The specific questions in the study concern identification of influencing factors from an early age, concurrent relations between adjustment and personality/social background factors as well as the stability of adjustment between the age of 4 and early schoolgoing age.

**Sven-Åke Christianson****SEK 296,348**

Reg. no. 92/267

*Studies of emotional and psychosocial changes in connection with surgical treatment of epilepsy*

This project intends to work out and apply psychological test methods for examining the emotional and psychosocial changes that occur in connection with epilepsy and its surgical treatment. A study will be made of the connection between damage localization, emotional sensitivity and psychosocial well-being. The objective is to attain greater knowledge of emotional and psychosocial changes in connection with epilepsy and neurosurgical intervention in order to help patients live as normal a life as possible.

**David Magnusson, University of Stockholm****SEK 493,913**

Reg. no. 92/341

*Social development: a longitudinal perspective*

The main purpose of the project is to study the social development of individuals and its consequences for social adaptation in adult life. Individual development is thereby viewed in an overall perspective as a process in which psychological and biological qualities of the individual and conditions in the environment during childhood and youth are in a state of constant interplay. Data for this study is available for about 1,300 persons within the framework of a longitudinal research programme.

**Sociology****Rune Åberg, University of Umeå****SEK 246,957**

Reg. no. 92/162

*Appraisal changes in a comparative perspective*

The object of the project is to describe and analyse appraisals and changes in appraisals in Sweden and in 18 other countries, where each investigation will cover one of the following areas: the role of government, family networks and support systems, social inequality, women and the family, work orientation, and religious beliefs. The investigations from the various countries, which are financed by funds from each individual country, are co-ordinated within the framework of the project International Social Survey Program (ISSP).

**Göran Therborn, University of Gothenburg****SEK 321,043**

Reg. no. 92/212

*Routes to and through modernity. Part I: the Arab world*

The goal of the project is to trace and compare systematically historical trajectories leading to and through modernity in Europe, in the New World, in the colonial zone, and in the major renovated traditions outside Europe. The period to be dealt with is from the late 18th to the late 20th centuries. Central foci are: polity conceptions and formation; the making of civil societies of public opinion and association; family and gender relations as manifestations of the issue of individualism; conceptions, organizations, and diffusion of knowledge; patterns of ideologies of good and bad societies.

**Denny Vågerö, University of Stockholm****SEK 271,652**

Reg. no. 92/315

*Women, work and health in Sweden and Europe. Has increasing gainful employment resulted in health risks for women?*

The purpose of this research project is twofold:

- 1) to throw light on the long-term health consequences of increasing gainful employment among women in Sweden, and
- 2) to elucidate differences between men's and women's health (mortality) in a number of European countries with the aim of proposing consistent interpretation of these differences partly on the basis of such conditions as the degree of gainful employment among women and fertility/family-formation patterns.

**Thor Norström, University of Stockholm****SEK 413,652**

Reg. no. 92/316

*Sickness-related absence in a longitudinal perspective*

The research programme may be summarized as follows:

- 1) To study the connections between sickness-related absence and various determining factors related to health, work conditions and family conditions.
- 2) To study the stability of sickness-related absence on the part of individuals.
- 3) To study the connections between sickness-related absence on the one hand and early personal characteristics and factors linked to childhood and adolescence on the other hand.

Analyses will be made of longitudinal data in particular, which greatly increases the possibilities of drawing causal conclusions.

**Political science****Sverker Gustavsson, University of Uppsala****SEK 296,348**

Reg. no. 92/89

*West European constitutional debate*

The constitutional debate at West European level deals with the character of the form of government that is emerging. Principally, two opposing views exist. According to one of them, sights are fixed on a federal state. According to the second view, the question of a lack of democracy is entirely a national problem. This investigation is aimed at making a close examination of these two main lines of reasoning.

**Law****Claes Norberg, University of Uppsala****SEK 246,957**

Reg. no. 92/75

*Liquidation of companies in case of capital deficiency*

The purpose of this project is to make a legal analysis of the rules of law that apply in case of deficiency of capital in a company. On account of the economic crisis in Sweden, an investigation of these rules may be assumed to have significance in practice and in principle. The investigation is intended to analyse the significance of the applicable rules on capital deficiency in the Companies Act. A number of questions are unresolved today. The connection between the rules on capital deficiency and other rules of law that concern companies in crisis, especially bankruptcy and composition rules, will be examined in the second part of the project. The connection between the rules on capital deficiency and other rules on company law of importance for capital formation are also analysed.

**Henrik Edelstam, University of Stockholm****SEK 463,043**

Reg. no. 92/126

*The principle of public access to official documents in the administration of justice*

The overall purpose of this project is to describe and analyse to what extent and in what way the principle of public access to official documents will – or ought to – find expression in the administration of justice. An important question will be to study which arguments are decisive where the various types of procedure differ in their application of the principle of public access to official documents.

**Gunnar Bergholtz, University of Lund****SEK 469,217**

Reg. no. 92/204

*Private litigation in domestic Swedish courts for the protection of civil rights and the environment*

This research project deals with methods for the protection of civil rights in the Swedish legal system. The aim is to examine the importance and appropriateness of giving the individual the possibility of complaining about limitations of their rights or other discrimination to a Swedish court.

**Viveka Adelswärd, University of Linköping****SEK 481,565**

Reg. no. 92/47

*Talks about morals and talks as morals*

The project covers the collection and analysis of authentic, tape-recorded talks where the participants explicitly or implicitly discuss ethical matters, such as counselling on abortion, inquiries into non-combat military service, talks between a physician and a relative, hunting stories, discussions among groups of candidates for confirmation, teacher-parent discussions and talks about development.

A social-constructive view of institutions and valuations forms the basis of this project. The analyses will be based on theoretical concepts from the conversation-analytical ethnomethodological school but will be linked to ethnographic or culture-sociologically oriented traditions.

**Martin Åberg, University of Gothenburg****SEK 401,304**

Reg. no. 92/102

*Hidden networks and the Gothenburg spirit. Political culture in a Swedish metropolis, 1890-1945.*

This project covers an analysis of political culture and the importance of economic and informal social contacts in the political life of Gothenburg. The networks and the political culture – the latter in the shape of the “Gothenburg spirit” – will be studied as two interrelated phenomena and will be illustrated on the basis of certain theoretical considerations of general interest in relation to power and social interaction.

**Agneta Emanuelsson, University of Uppsala****SEK 259,304**

Reg. no. 92/159

*Apostles of cleanliness and orderliness. The origin and development, between 1915 and 1945, of the Swedish district nurse's activities.*

The district nurses organization in Sweden was created in 1919 by parliamentary decision. The reform was aimed at improving health care and preventive care in the countryside. The activities of the district nurse have not been the subject of previous research. The role of the district nurse appears to have been more independent than that of other nurses. The purpose of this project is to investigate how district nurses followed the intentions of the reform, the way in which the reform was implemented in various county councils, and the motives of the state in carrying out the reform.

**Jan Torsten Ahlstrand, University of Lund****SEK 450,000**

Reg. no. 92/175

*Cubism and the Middle Ages. Theory and practice in the artistic development, during 1920-1935, of Gösta Adrian-Nilsson (GAN).*

GAN's efforts as an artist and theoretician during the 1920s and 1930s probably had even greater importance than in the 1910s. His artistic production from this time is more comprehensive and disparate, which requires an extended and more refined theoretical analysis. It was during this period that he published his work “The divine geometry” (1922), which has been very important in modern Swedish art history. To relate GAN's art theory to his disparate artistic practice in order to arrive at a coherent interpretation of his person and artistry is a main purpose of this project.

**Lennart Nordenfelt, University of Linköping****SEK 555,652**

Reg. no. 92/236

*Mental health – vision and mission*

Promotion of the mental health of the population is a vital target of society's efforts. At the same time, mental health, as an idea and a phenomenon, is extremely difficult to grasp. The aim of this project is to clarify the thinking on, and actions related to, mental health after the Second World War (1945-2000). The project is expected to create a base for the work of formulation and the reforms currently taking place in public health and to promote understanding of the need for a vigorous mental health programme.

**Tomas Hökfelt, Karolinska Institute****SEK 617,391**

Reg. no. 92/65

*Studies of the peptide galanine and its role and relation to other peptides in pain mechanisms.*

Chronic pain that can arise after nerve damage is a considerable clinical problem. Although initial pain relief may be obtained with opiates, sensitivity to these drugs decreases and other effective therapeutic alternatives are often not available. On the basis of histochemical, molecular biological, biochemical and physiological techniques, investigations have been made of the peptide galanine, which occurs in primary sensory neurons. The results indicate that galanine is an endogenous pain antagonist, whose function is to lessen the pain impulse in a long-term perspective. The planned studies cover integrated research that extends from biochemical work with synthesis of peptidolytic stable galanine receptor agonists and will also cover the galanine message associated peptide (GMAP) and fragments of this peptide.

**Berndt Ehinger, University of Lund****SEK 407,478**

Reg. no. 92/263

*Studies of development and function of retinal cell transplant in the project "Scandinavian RP Research Centre"*

An account of the first successful experimental retinal cell transplantation was published in 1986. The technique has since been developed by a number of laboratories and the general principles are now well established. However, it is not yet known whether the transplant can react to light and whether it can be integrated into the host retina. It is intended, in this study, to examine this problem by means of techniques developed for the purpose. It is also intended, by means of specially developed methods, to study the normal development of photoreceptors and the contacts they form, as well as the way in which they may be affected by various factors.

**Gunilla Bengtsson-Olivecrona, University of Umeå****SEK 308,696**

Reg. no. 92/275

*Studies of the lipoprotein lipase molecule and its interactions*

The purpose of this project is to study the three-dimensional structure and function of the lipoprotein lipase molecule. The enzyme consists of two similar protein chains that are closely bound. If the chains are separated the lipase loses its capacity to cleave fats. A study will be made of the changes that occur in the lipase molecule when it binds to the walls of blood vessels, to fat particles, to a special activating protein (apolipoprotein CII), and to cell-surface receptors.

**Anita Aperia, Karolinska Institute****SEK 370,435**

Reg. no. 92/326

*Hereditary changes in kidney function as a cause of hypertension*

Hypertension is, as a rule, a heterogeneous disease caused by a number of jointly acting environmental factors and genetic factors. If some of the mutations that predispose towards hypertension in man could be traced, treatment of high blood-pressure could be made more effective and preventive programs could be focused on high-risk groups.

Numerous observations indicate that regulation of the kidneys' salt transport may be disturbed in hypertension with a genetic element.

In experimental research at molecular level it has been possible to survey salt trans-

port by the kidneys. It has been found that two important catecholamines are mainly responsible for the basal regulation.

It is now planned, both in experimental and in clinical studies, to investigate whether catecholamine regulation of the kidneys' salt transport can be defective in various forms of hypertension with a genetic element. Indirect evidence from both experimental and clinical studies indicates that this may be the case. In the patient-based investigations, a study will be made of the way in which these signals control salt secretion and the neurotransmitters secreted in the urine.

**Mats Fredrikson, Karolinska Institute****SEK 555,652**

Reg. no. 92/345

*Work, behaviour and blood pressure*

The purpose is to study work-related psychosocial factors in relation to ambulatory and laboratory-induced high blood pressure, plasma lipids and blood sugar. The main purpose of this project is to study blood-pressure variations related to behaviour and work characteristics, such as demands and scope for making decisions. A second purpose is to study whether work-related high blood pressure can be predicted from stress-related high blood pressure provoked by standardized stressors in the laboratory. A third objective is to study metabolic disturbances in relation to work-related variables. The significance of the project lies in the identification of psychosocial risk factors and psychobiological mechanisms through which these can act to raise the risk of high blood pressure and atherosclerotic diseases.

**Bror Morein, National Veterinary Institute****SEK 308,696**

Reg. no. 92/350

*Functional and structural studies of active iscom-glycosides*

Iscom technology is a new concept for vaccine formulation where the unique constituents of the iscom consist of Quil A components. The objective is to isolate, define and modify components with changed biological properties, valuable for a new generation of iscoms.

**Folke Sjöqvist, Karolinska Institute****SEK 370,435**

Reg. no. 92/367

*Improved use of benzodiazepines and neuroleptics in health care, based on pharmacogenetic diagnostics*

The project will utilize modern advances in molecular pharmacogenetics in order to evaluate the possibilities of identifying patients with genetically caused prolonged metabolism of neuroleptics and predict which patients can run the risk of developing so-called low-dose dependence on diazepam.

**Birger Schmitz, University of Gothenburg****SEK 432,174**

Reg. no 92/14

*Mass extinctions, geological time limits and asteroidal crashes*

One of the classic research problems in geology has been to ascertain the causes of the recurrent dramatic mass extinctions of species of sea animals and plants in the history of the earth. Nobel Laureate Luis Alvarez designed an instrument for routine analyses of extremely low contents of iridium in the sediment. The instrument is the only one in the world with which such analyses can be performed.

In this project, it is intended during the next three years to analyse about 1,200 specimens for iridium from a number of different mass extinction events in the history of the earth at the Lawrence Berkeley Laboratory. In addition, shells of organisms that lived near the mass extinctions will be analysed for oxygen and carbon isotope composition. This will be done to clarify any general changes that occur in the chemistry, temperature or circulation pattern of the sea in connection with mass extinctions. The project is expected to contribute to knowledge about the development of life and to provide new insights into the way in which the biosphere reacts to various large-scale environmental changes.

**Anders Tunlid, University of Lund****SEK 370,435**

Reg. no. 92/56

*Molecular mechanisms underlying fungus-host interactions*

Fungal infection of higher organisms is an important step in many ecological interactions, primarily between pathogens, symbionts and corresponding host organisms. Research will be concentrated on four areas: (1) structure and function of a carbohydrate-binding (fungus) protein and its receptors in adhesion; (2) the mechanism underlying observed reorganization of extracellular polymers (adhesins) in the binding of the fungus to the surface of the nematode; (3) activation of mechanosensitive receptors in contact between fungus and host; (4) production of hydrolytic enzymes (proteases) in penetration of the cuticle of the nematode by the fungus.

**Hermann G. Grimmeiss, University of Lund****SEK 419,826**

Reg. no. 92/70

*Spectroscopic investigations of Si/Ge and  $\alpha$ -Sn/Ge alloys, quantum wells and superlattices*

The project covers experimental investigations of completely "artificial" semiconductor materials manufactured in the form of alloys, quantum wells and superlattices of the Group IV materials Si, Ge and  $\alpha$ -Sn.

A subproject dealing with  $\alpha$ -Sn/Ge crystal lattices is a unique area because preparation of these structures is associated with great difficulties and there is only one group in the world (Munich) that has succeeded in manufacturing them. Continued development of trial growth is planned in the project and optical investigations of the band structure for energies around the fundamental band gap.

**Bo Ebenman, University of Linköping****SEK 271,652**

Reg. no. 92/101

*Stability and resistance to disturbance in ecosystems with different structures*

The aim of this project is to acquire an understanding of how the structure of an ecosystem influences its stability and thereby its resistance to disturbance and its capacity to recover after various attacks.

**Lennart Adler, University of Gothenburg****SEK 123,478**

Reg. no. 92/111

*Studies of ethanol fermentation in *Saccharomyces cerevisiae**

The purpose of this project is to investigate the possibilities of increasing ethanol production at the expense of formation of by-products by controlling glycerol production by the cells. Glycerol has a central regulating role in by-product formation by the cell as well as in its overflow metabolism and, besides, serves as an osmoregulator in a "wasteful" osmoregulation process.

**Dag Jensen, University of Stockholm****SEK 179,043**

Reg. no. 92/246

*Mechanisms of spontaneous mutations in mammalian cells*

The objective is to lay the foundation for a project in which a more detailed study can be made of the mechanisms underlying the occurrence of spontaneous mutations. These studies cover four important problems: 1) appearance and loss of extra DNA fragments through intrachromosomal recombination, 2) mechanisms for the appearance of mutants through incorrect splicing, 3) the importance of the nucleotide pool for base pairing mistakes during DNA replication, and 4) reversion to a wild-type phenotype through amplification of mutant genes. Both splicing and amplification mechanisms are central areas of research that are concerned with a number of questions linked to our state of health.

**Carl Nordling, University of Uppsala****SEK 296,348**

Reg. no. 92/293

*Atomic physics in ionic radiation*

This project is concerned with the type of research, primarily based on excitation of the ions with laser light and using soft X-ray radiation in connection with atomic collision processes. The planned research represents the exploration of new territory by means of experimental techniques developed for low-ionized atoms.

The main importance of this research lies in purely scientific matters concerning the capacity of atoms to take up and emit energy, but its results will also be of use in astrophysical and plasma physical research.

**Pål Nyren**, *The Royal Institute of Technology, Stockholm* SEK 246,957

Reg. no. 92/222

*Development of an entirely new method for the detection and sequencing of DNA, with technological, biological and medical applications*

DNA sequencing is one of the most important techniques for the analysis of genes.

This project is concerned with the development of an entirely new technique for automatic DNA sequencing that does not use electrophoresis, radioactivity or fluorescence. One application of the DNA-analysis method, which ought to be possible at an early stage of the development work, is to use it as a simple detector of PCR-amplified DNA fragments. To be able to determine whether an amplification has worked and the amount of material that has been obtained is of great value both for clinical analyses and for work in molecular biology in general. A new method for specific analysis of the first base in a DNA fragment will also be developed.

**Collegium Budapest**

SEK 365,000

Reg. no. 92/414

After preparations had been made for a year or so, primarily at the foundation Wissenschaftsstiftung Ernst Reuter, Berlin, a number of European foundations and others decided to institute an international research centre in Budapest. The activities at this centre will be focused, in the first place, on scientific studies of the legal systems in the new Europe, the pattern of migration, matters related to refugees and minorities, problems related to the transition from a centrally planned economy to a market economy, and environmental matters.

## Statistical information on research grants

The following tables provide an overview of the distribution of grants among different fields. Table 1 shows the distribution for 1992, and table 4 for the whole period of activity of the Foundation, 1965-1992. If the grants awarded in the various years are expressed in 1992 monetary value, the sum of the research grants awarded by the Foundation to date is SEK 2,500 m.

Information about the relationship between continuation grants and new grants in 1991 is provided in tables 2 and 3. Table 3 also shows the duration of these types of grants and their distribution among different faculties.

Several of the projects receiving grants, especially the larger ones, are of a multidisciplinary or interdisciplinary character. For this reason, it is not possible to give an exact breakdown by field or even by faculty. Grants are listed under the subject deemed to be the most central, generally the field in which the coordinating researcher is engaged. In all essentials, the tables provide a correct description of the trend of the Foundation's activities.

The grants listed under social science (see table 1) accounted for 47% of the total of the grants awarded in 1992. Humanities-oriented research accounted for 20% of the total amount awarded. Research projects in medicine, natural science and technology accounted for the remainder (just over 30%). For the entire period 1965-1992 (table 4), the corresponding shares are 54%, 21% and 25%, respectively.

The percentage distribution among the subjects may vary considerably from one year to another. However, the differences should not be regarded as changes in the Foundation's grant-allocation policies. The differences are generally caused by the fact that some major, multidisciplinary project, listed under a certain subject, has either been introduced or concluded during the year.

Table 1 shows that 196 project grants were awarded in 1992 out of a total of 581 applications considered. The rejected applications represented a total request for just over SEK 230 m. The corresponding figure for applications rejected in 1991 was SEK 194 m. In this connection it should be noted that it was possible to accept applications only during the spring of 1992 (contrary to the usual practice of accepting applications in the autumn as well). Forty out of the project grants awarded were for new projects (1991: 46 projects; 1990: 64 projects). Of the total funds sought for new projects, only 6.2% received approval.

New grants accounted for 20.4% of the total amount approved during the year (table 2).

Compared with previous years, competition for grants from The Bank of Sweden Tercentenary Foundation has intensified considerably. This situation is, of course, linked with the fact that it has not been possible to increase the Foundation's total grant-awarding capacity because of the economic trend in Sweden and the rest of the world. A contributory factor consists of the sharp increases in value added tax and overhead charges for grants from external non-state financiers of research in recent years.

Table 1. Grant applications and approvals in 1992 (SEK 000s)

Field	Grants approved		Applications		Grants approved as % of		
	No.	Amount	No.	Amount	amount sought	number sought	per subject field
<b>Social science</b>	92	31.861	272	147.157	21,7	33,8	47,3
Economic history	5	1.902	12	5.543	34,3	41,7	2,8
Business administration	7	2.867	36	21.972	13,0	19,4	4,2
Economics	9	3.449	28	20.870	16,5	32,1	5,1
Human geography	2	905	5	2.563	35,5	40,0	1,3
Education	7	2.280	34	15.289	14,9	20,6	3,4
Psychology	18	6.251	42	18.813	33,2	42,9	9,3
Sociology	14	4.371	39	23.136	18,9	35,9	6,5
Antropology	2	733	3	1.127	65,1	66,7	1,1
Statistics	3	377	6	4.347	8,7	50,0	0,6
Political science	18	6.127	36	18.683	32,8	50,0	9,1
Law	7	2.599	31	14.814	17,5	22,6	3,9
<b>Humanities</b>	37	13.801	99	40.451	34,1	37,4	20,5
<b>Medicine</b>	32	11.404	100	52.586	21,7	32,0	16,9
<b>Natural science</b>	23	6.970	68	36.587	19,1	33,8	10,4
<b>Technology</b>	8	2.584	37	20.631	12,5	21,6	3,8
<b>Other</b>	4	678	5	686	98,8	80,0	1,1
<b>Total project grants</b>	<b>196</b>	<b>67.298</b>	<b>581</b>	<b>298.098</b>	<b>22,6</b>	<b>33,7</b>	<b>100,0</b>
<b>Administrative fees + value added tax, old grants</b>		<b>2.055</b>					
<b>Travel grants, salary-grade increments, sector committees</b>		<b>2.000</b>					
<b>Total</b>		<b>71.353</b>					

Table 2. Continuation grants/New grants 1992 (SEK 000s)

Type of application	Grants approved		Applications		Grants approved as % of		
	No.	Amount	No.	Amount	amount sought	number sought	per subject field
Continuation grants	156	53.584	171	77.905	68,8	91,2	79,6
New grants	40	13.714	410	220.193	6,2	9,8	20,4
<b>Total</b>	<b>196</b>	<b>67.298</b>	<b>581</b>	<b>298.098</b>	<b>22,6</b>	<b>33,7</b>	<b>100,0</b>

Table 3. Number of final and one-time grants awarded, by duration and faculty, 1992

Duration (years)	Social science	Humanities	Medicine	Natural science	Technology	Other	Total	%
-1	1	1	0	0	0	0	2	3,6
2-3	20	8	2	3	2	0	35	63,6
4-5	7	4	4	1	0	0	16	29,1
6-7	0	0	2	0	0	0	2	3,7
8-	0	0	0	0	0	0	0	0,0
<b>Total</b>	<b>28</b>	<b>13</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>55</b>	<b>100,0</b>

Table 4. Grants awarded during 1965-1992 (SEK 000s)

Field	Applications approved No.	Amount	Amount awarded, as % of respective field
<b>Social science</b>	2.452	531.838	53,97
Economic history	154	34.190	3,47
Business administration	157	30.250	3,07
Economics	269	64.962	6,59
Human geography	200	52.638	5,34
Education/Psychology	591	122.211	12,40
Sociology/Antropology	428	85.204	8,65
Statistics	100	18.104	1,84
Political science	448	107.197	10,88
Law	105	17.082	1,73
<b>Humanities</b>	1.049	207.109	21,02
<b>Medicine</b>	492	119.172	12,09
<b>Natural science</b>	371	90.436	9,18
<b>Technology</b>	90	22.080	2,24
<b>Other</b>	97	14.729	1,49
<b>Total</b>	<b>4.551</b>	<b>985.364*</b>	<b>100,00</b>

\* Equivalent to SEK 2.5 bn in 1992 monetary value.

## Publications by the Foundation

Research reviews and documentation from symposiums, conferences, etc., arranged by The Bank of Sweden Tercentenary Foundation are either published in the form of a series or issued as independent publications.

In some cases the contents of the publications listed below may not be evident from the titles. The staff at the Foundation office will be pleased to supply further details, including the addresses to which orders should be sent. The titles given here are translations of the original Swedish titles. Only those publications followed by an "in English" entry are available in English.

The following titles have appeared to date in the series:

- |  |  |
|--|--|
| RJ 1977:1 Working life, economics and the evolution of welfare | RJ 1981:2 The life of women in Swedish society                             |
| RJ 1977:2 Listen, look, read                                   | RJ 1982:1 The risk of becoming an alcoholic                                |
| RJ 1977:3 Hello! Hello!  | RJ 1982:2 Directly contrary to accepted standards                          |
| RJ 1978:1 Where do the strings lead?                           | RJ 1982:3 Changing one's way of life                                       |
| RJ 1978:2 Threat or promise?                                   | RJ 1983:1 Women and men in Swedish society (in English)                    |
| RJ 1978:3 Dialogue   | RJ 1983:2 How are we going to cope with 1990?                              |
| RJ 1978:4 Two-way cable TV and teleconferencing                | RJ 1984:1 Alcohol policy and research                                      |
| RJ 1978:5 Push the button                                      | RJ 1984:2 Eastern bloc research in Sweden 1950-1983                        |
| RJ 1978:6 Attitudes towards technology                         | RJ 1985:1 Research on taxes  |
| RJ 1978:7 Pain and acupuncture                                 | RJ 1986:1 Taxes — a problem for society?                                   |
| RJ 1979:1 Waiting in the wings                                 | RJ 1986:2 Finance theory investigations                                    |
| RJ 1979:2 Planning at the present time                         | RJ 1987:1 Technology and employment in the future                          |
| RJ 1979:3 Research in aid of equality between the sexes        | RJ 1987:2 Social science and humanities research on sport                  |
| RJ 1979:4 Modern times   | RJ 1988:1 Research in aesthetic subjects                                   |
| RJ 1980:1 The value and meaning of work                        | RJ 1989:1 The Swedish Riksdag in an international perspective (in English) |
| RJ 1980:2 Current research on women                            |  |
| RJ 1980:3 Research on working life                             |  |
| RJ 1980:4 Equality perspectives in research                    |  |
| RJ 1980:5 Communication — despite disability                   |  |
| RJ 1980:6 Research on taxation                                 |  |
| RJ 1981:1 Swedish research on taxation 1919-1979               |  |

### Other publications:

- Riksdagen genom tiderna (The Riksdag through the ages).  
H Schück, G. Rystad, M.F. Metcalf, S. Carlsson & N. Stjernquist (1985). Second edition (1992)
- The Riksdag: A History of the Swedish Parliament.  
H. Schück, G. Rystad, M.F. Metcalf, S. Carlsson & N. Stjernquist (1987).
- FORSKNING I ETT FÖRÄNDERLIGT SAMHÄLLE, Stiftelsen Riksbankens Jubileumsfond 1965-1990. Edited by Kjell Härnqvist and Nils-Eric Svensson, Gidlunds Bokförlag (1990).
- SWEDISH RESEARCH IN A CHANGING SOCIETY, The Bank of Sweden Tercentenary Foundation 1965-1990. Edited by Kjell Härnqvist and Nils-Eric Svensson, Gidlunds Bokförlag (1991).
- Riksdagen inifrån. Tolv riksdagsledamöters hägkomster, erfarenheter och lärdomar (The Riksdag on the inside. Twelve Members of Parliament recollect their experiences and the lessons they learned). Edited by Nils Stjernquist, Gidlunds Bokförlag (1991).
- Att åldras (Growing old). Report from a symposium on growing old and on age-related diseases. Editor: Bengt Pernow, Gidlunds Bokförlag (1992).
- Europa — historiens återkomst (Europe — the return of history).  
Editor: Sven Tägil, Gidlunds Bokförlag (1992).



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