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Annual Report



Stiftelsen

RIKSBANKENS JUBILEUMSFOND

The Bank of Sweden Tercentenary Foundation

Annual Report
1990

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1990 in brief

- The Foundation commenced its research support activities at the end of 1965. In the past 25 years, it has awarded 4.200 research grants amounting to a total of more than SEK 2 000 million (in the value of money in 1990).
- Activities to date were commemorated during the year by publication of the book *Forskning i ett Föränderligt Samhälle* (also published in an English version, "Swedish Research in a Changing Society") and the symposium *Samhällsförändringar i ett 25-årigt Forskningsperspektiv* (Eng. = Social changes in a 25-year research perspective). Research projects financed by the Foundation in various disciplines are reported.
- Unfortunately, grants to research could not be incremented during the year to keep pace with rising consumer prices.
- More than SEK 72 million were allocated as grants to research, representing an increase of 1.7% compared to 1989.
- The average size of annual grants (to a total of 227 projects) was SEK 290.000 (1989: SEK 300.000).
- Rejected grant sums applied for (432 projects) amounted to SEK 213 million (1989: SEK 163 million).
- Somewhat more than one-fourth of the amounts awarded were grants for new research projects (64 as opposed to 73 the previous year).
- Competition for research funds was very intense. Only 8.7% of the amounts sought for new projects could be granted (1989: 11.7%).

Foundation tasks, inception and aims

The objective of the Bank of Sweden Tercentenary Foundation is to *support and promote scientific research*.

One central task is to manage the Foundation's assets in such a manner that the economic basis of research support is preserved for the future.

The Foundation was created by a decision of the Swedish Riksdag in April 1962, according to a proposal by the Governors of the Bank of Sweden who wished to commemorate the *Bank of Sweden's 300th anniversary in 1968* while simultaneously supporting "*an urgent national priority*". The annual yield from the donation was to be used in support of scientific research related to Sweden.

In its April 1964 proposal, the committee appointed to draw up guidelines and regulations for the independent Foundation recommended that activities be given "*extensive flexibility*" and that "*no research field should be excluded from the possibility of receiving grants from the Foundation*". Initially, activities were to

"concentrate on research aimed at expanding knowledge about the impact of technical, economic and social changes on society and on individual citizens"

This recommendation has previously provided and continues to provide guidance for the Foundation's activities.

The Foundation's statutes were adopted in December 1964. These statutes, like the present ones (which came into force on 1st January 1988) stipulated e.g.

"that priority shall be given to research fields whose funding is inadequate in other respects;

that Foundation grants shall primarily be made to major, long-term research projects;

that special support shall be provided for research fields demanding rapid, comprehensive measures; and

that the Foundation shall seek to promote contacts with international research programmes.

Socially important fields of research lacking particular representative are also eligible for support. Foundation assistance can be viewed primarily as a *complement*, not as an alternative, to resources already available for financing high-level research in Sweden.

Managing Director's comments

In 1990, the Bank of Sweden Tercentenary Foundation recorded its 25th year of research support activities. The first grants were awarded in October 1965. Since then, 4,200 research grants, amounting to more than SEK 2,000 million, have been awarded. Thus, the average size of an annual project grant over the years has amounted to about SEK 475,000.

During the initial period, we were able to award SEK 95-100 million a year. Research grants in 1990 amounted to SEK 72 million with an average size of SEK 290,000 per project. All figures cited are in the 1990 value of money.

Any review of the list of the grants awarded over the past 25 years (a list can be found in the 1989 Annual Report) discloses wide-ranging foresight in the Foundation's choice of projects. The book published to commemorate the 25th anniversary, "*Forskning i ett Föränderligt Samhälle*" (also available in an English version, "*Swedish Research in a Changing Society*") containing 23 essays describing projects in various scholarly disciplines, supplies many examples to support this claim, as did the anniversary symposium, *Samhällsförändringar i ett 25-årigt Forskningsperspektiv* (Eng. = *Social changes in a 25-year research perspective*). Many of the major projects reported could not have been performed without the Foundation's considerable financial support.

In contrast to the state research councils, each of which operating in a relatively narrow sector, and most other independent foundations, the Foundation has been able to support scientific research in widely differing fields. As a result, there was an important growth in multidisciplinary knowledge of major importance to the management issues concerning the impact of economic, social technical and environmental changes. Many central social issues of enduring relevance have been addressed.

In 1990, 227 project grants were approved out of total of 659 vetted. Grants represented a total of SEK 213 million sought (1989: SEK 163 million). Only 8.7% of the grants sought for new projects were approved (1989: 11.7%). Many of the rejected applications were from scholars of outstanding international repute and concerned research of the highest scientific quality and social relevance.

Competition for grants from the Bank of Sweden Tercentenary Foundation has become much stiffer in recent years. This is due to e.g. difficulties in sustaining the Foundation's real grant-awarding capacity. In 1990, the explanation is to be found in economic developments in Sweden and elsewhere. But the long-term explanation is ascribable to restrictions in the Foundation's right to manage its donation capital until the end of 1987. The value of the Foundation's donation capital has been eroded year by year and, thus, annual yield. Thanks to the modern investment regulations effective from 1988, the Foundation is now able to pursue active, multifaceted capital management. A highly qualified organization has been built up at the Foundation Office to pursue this management. Unfortunately, the change in Foundation statutes was made too late for us to make the most of capital growth opportunities (e.g. as a result of developments on the shares market) during 1980's. Comparisons with other foundations with more liberal investment rules at that time suggest that it would have been easy for us to preserve the real value of donation capital and, thus, the value of the part of yield which was available for grants to research.

In 1990, inflation (expressed as the average value of the year's consumer price index) amounted to 10.4%. So the Foundation's grants to research could only be increased by 1.7%. In reality, this "increase" actually represented a 8.7% decrease. Expressed in terms of money, it could be said that if the Foundation had been able to withstand the effects of inflation, it would have been able to award about SEK 6 million more than was actually the case. It has not been pleasant to witness the decline in the Foundation's

grant-awarding capacity at the same time as the need by scientists for grants was on the rise and there was the agreement in Sweden that a need for well-trained scholars and urgent, high-level research were not being met.

Unfortunately, an additional decline in the Foundation's real support for important research projects is also anticipated in 1991. This year, inflation is expected to be on the same level as in 1990. Restoration of the Foundation capital and grant-awarding capacity in real terms in only one year is improbable. According to an agreement between the Conference of Swedish University Chancellors and the state research councils - which will also be observed by the Foundation - the universities' administrative fee will be raised from 3% at present to 13.6%. This means that about SEK 7 million must be set aside for this purpose.

The increased competition for research funds will mainly affect active scholars, of course. My co-workers and I wish that we could respond more to their aspirations and expectations than with the statement that less than 10% of the amounts sought for new projects can be granted. So members of the Foundation's preparatory committees experience considerable distress when forced to reject large numbers of urgent, high-level research projects.

In the light of the aforementioned remarks, a capital injection to the Foundation in the form of donations or in some other way, making it possible for us to increase the annual award of grants, would be highly desirable. Advanced research and the training of graduate students are decisive to Sweden's cultural and material progress. The Bank of Sweden Tercentenary Foundation has a smoothly running organization with a high-level of know-how in financial management and the award of funds to high-level scientific research. The composition of the Board of Directors also facilitates comprehensive national and international contacts between research fields and other important interests in society.

Stockholm, January 1991



Nils-Eric Svensson

Support for research

The bank of Sweden Tercentenary Foundation supports *high-level* research in *all scientific disciplines*. As a rule, this support is in the form of project grants to individual scientists (or groups of scientists) who have submitted applications for research grants.

Social science research has been favoured to some extent ever since the Foundation's inception. In 1990 50% of available funds were awarded to this field, 20% to the humanities and 30% to medicine, natural sciences and technology.

Priority is given to projects whose needs are not satisfied in other ways, e.g. by means of grants from state research councils or other agencies, each of which operating in a relatively narrow sector.

The Foundation is particularly interested in multi- or interdisciplinary research and projects in which scientists from different disciplines, centers or countries collaborate.

Procedures

The Foundation's Board of Directors rules on grants. Before they reach the Board, applications are vetted and evaluated in one or, frequently, more preparatory committees. Board members and deputy members plus external scientific experts serve on these committees. As a rule, applications are also evaluated by one or more experts in Sweden or abroad.

Each application is primarily evaluated on the basis of international standards and on intra- and extra-scientific criteria. Two main questions are asked before ruling is made:

- Does it represent high-level scientific research?
- Is this research important to society?

Rulings on grants for *new projects* are made in *two stages*.

- 1) In the first stage, assessments are based on brief, overview applications, i.e. *project outlines*. The committees then select the applications deemed to display the greatest scientific merit and interest to the Foundation and which are to be conducted by scientists adjudged to be qualified and suitable for the project in question. These scientists are then given an opportunity to submit complete applications. Other applications (project outlines) are rejected.
- 2) In a second stage, *complete applications* are evaluated (usually after vetting by an external expert) prior to a final ruling by the Board.

Applications on research whose ethics are open to question are evaluated according to the same standards and in the same way as in state research councils.

In certain fields, regarded as important but inadequately financed, the Foundation sometimes appoints special *sector committees*. The task of these committees is to ascertain research needs, encourage scientific research and promote the exchange of information. These committees consist of scientists from disciplines of significance to the respective field and representatives of important, relevant public interests. Committee activities can be described as high-level research preparatory work. These activities cease when scientists and/or public agencies responsible for allocating permanent resources to the respective field begin devoting sufficient attention to them.

The Foundation also holds conferences or symposia (occasionally in collaboration with some other research-promotion organization) for the purpose of elucidating the need for knowledge in a particular field and identifying research needs.

Research grants

During the year, the Foundation approved 227 project grants plus travel grants and salary increments etc. amounting to a total of SEK 69.2 million (Table 1, p. 00). As a rule, grants were administered by a state university or college. The Foundation pays these institutions a 3% fee for administering grant disbursements., i.e. SEK 1.9 million in 1989. If the cost of expert vetting and certain information on research projects is added to these figures, the Foundation's disbursements for research support amounted to SEK 72 million in 1990, i.e. a SEK 1 million (1.7%) increase over 1989. This nominal increase actually represents a reduction, as inflation during the year amounted to 10.4%. The reasons for this decline are subject of comment under "Financial administration".

A special section ("New Research Projects in 1990, p. 00) in this Annual Report describes all the new projects to which grants were awarded that year.

Awarded grants are utilised according to special provisions stipulated in the contract with each grant recipient and in accordance with Foundation rules for grant administrators.

As previously noted, most grants are administered by some state university which then serves as the formal employer of staff paid with grant funds.

The section "Statistical information on research grants" (p. 00-00) lists certain tabular data on processed applications and approved grants. Nearly one-fourth of the research grants approved in 1990 were awarded to *new projects* (Table 2 p. 00).

Only 8.7% of the sums sought were approved. The corresponding percentage in the past four years was slightly larger. So competition for grants from the Bank of Sweden Tercentenary Foundation is very intense.

The average size of new grants was of about the same magnitude as in the past few years. The average sum awarded to new projects from 1986-1989 was equivalent to about SEK 282.000 if incremented by changes in the consumer price index. The average size of new grants in 1990 was SEK 279.000.

Information exchange, follow-up etc.

Many of the research projects supported by the Foundation shed light on problems of general social interest. So it is important for findings to be disseminated beyond scientific circles so they can even be the subject of lay discussion, critical scrutiny and utilisation.

As a rule, research findings cannot be immediately transformed into practical, concrete action or products. However, they are essential as the starting points for or ingredients in all serious development and reform. For this reason, it is important for people responsible for such activities to be encouraged to seek information, pass it on and utilise research output. In turn, scientists should be encouraged to become acquainted with problems existing and defined outside their respective fields. Organizations supporting research can and should facilitate this kind of information exchange.

During the year, the Foundation pursued activities on both national and international basis for the purpose of monitoring research receiving Foundation support and stimulating interest in and the exchange of information between groups in society.

In conjunction with its 25th Anniversary, the Foundation published the book "*Forskning i ett Föränderligt Samhälle*". In addition to an account on the Foundation's inception and evolution, the book contains 23 essays from various scientific disciplines with descriptions of research projects having received Foundation grants. The essays constitute a good example of the scientific breadth, variety and quality characteristic of the Foundation's research-support activities. The book is also available in an English version, "Swedish Research in a Changing Society".

A very well-attended anniversary symposium on "*Samhällsförändringar i ett 25-årigt Forskningsperspektiv*" (Eng. = Social changes in a 25-year research perspective) was also held in the Swedish Riksdag building. Four research fields were presented and discussed, viz. "Equality", "Environment", "Immigration" and "Politics". A number of successful research projects in these fields have had and are receiving Foundation grants.

Over the past twenty-five years, the Foundation has awarded about 4.000 grants to research. For natural reasons, the recently described activities only touch on a few of the projects in this research. The Foundation's 1989 Annual Report contains a catalogue of grants awarded to date.

The lecture series on "*Politics and the Work of the Riksdag*", held by the Committee for Research on the Riksdag's Operation and Procedures for members of the Riksdag, was concluded during the year with two popular sessions. Lecturers were the former Riksdag members *Astrid Kristensson* and *Nils G. Åsling*.

A newly started series of lectures for Riksdag members on "*Social Changes in a Research Perspective*" was launched by Professor *Jörgen Westerstål* with a popular lecture entitled "*Media and Politics*".

The collaboration established last year with scholars attached to the corresponding English group, i.e. the Study of Parliament Group, continued, including preparations for a joint seminar in 1991 on the subject "The Health of Democracy in Britain and Sweden".

As in previous years, several of the Foundation's grant recipients were given an opportunity to present and discuss their projects and research findings at foreign institutions of higher learning or at international scientific symposia. As usual, there was also a multifaceted exchange of information with foreign research foundations, especially in Europe. As a result numerous contacts were established between individual scientists or research groups. For example, the Foundation collaborated in the establishment of the European Foundation Center in Brussels. The main task of this organization is to support and promote the exchange of information between various foundations in western and eastern Europe.

Since 1966, the Foundation has participated in the financing of the Nobel Foundation's symposium programme. This involvement was initially in the form of annual grants. In 1979 the Nobel Foundation started a special symposium fund with a donation (SEK 2 million) from the Bank of Sweden's Tercentenary Foundation and the Knut and Alice Wallenberg Foundation (SEK 500.000/year for four years) and from contributions and royalties accruing from its own information activities. This fund has developed very favourably and amounted to SEK 45 million at the end of the 1989 fiscal year.

The symposium programme, now completely financed by the yield from aforementioned fund, is led by a committee consisting of representatives of the five Nobel Committees, The Economics Prize Committee, The Bank of Sweden Tercentenary Foundation and the Wallenberg Foundation. The committee is chaired by the Nobel Foundation's managing director.

A total of 80 Nobel symposia have been held to date. They are devoted to scientific breakthroughs of central cultural or social significance and have acquired major international repute.

In an effort to encourage Swedish scientists to publish popular science material, the Foundation established two prizes in 1988 for the best articles in the magazine *Forskning och Framsteg* (Eng. = Research and Progress) in the fields of

*Social science-Behavioural science-Humanities
and
Natural science-Medicine-Technology-Agricultural science*

In 1990 the prizes (SEK 25.000 each) were awarded to **Curt Roslund** for the article "Gudar som stadsplanerare i forntidens Mexico" (Eng. = Gods as town planners in ancient Mexico) and to **Wibjörn Karlén** and **Fredrik Holm** for the article "Glaciärerna smälter - Istiden kommer" (Eng. = The Glaciers are melting - Ice age on the way).

The prize-winners were selected by members of the Foundation's Board of Directors, in the former instance by Britta Bjelle, Lars Furuland (chairman), Gertrud Sigurdson and Lars-Göran Stenelo and, in the latter instance, by Barbara Cannon, Birgitta Hambræus, Bengt Pernow (chairman) and Rune Rydén.

As in previous years, the preparatory committees also visited a number of grant recipients. In addition to reviews and discussions in conjunction with the individual research projects, the visitors also attempt to obtain knowledge on conditions prevailing in and pre-requisites for research and graduate studies.

Scientists or research groups are often invited to the Foundation office for presentation and discussion of ongoing projects. At Board meetings, scientist members provide periodic reviews of contemporary research work.

The aforementioned activities are only examples of some of the Foundation's periodic, systematic efforts to promote the exchange of information between international research and to encourage information exchange among scientists and between scientists and society outside scientific circles. As previously noted, the objective is to increase understanding for and knowledge about research prerequisites, work procedures and results, thereby supplying the basis for evaluations of the activities financed with available research funds. Meetings at which decisionmakers and representatives of various public interests are able to meet with scientists are deemed to be of particular merit.

The Bank of Sweden Tercentenary Foundation is active in all scientific fields. This is reflected in the disciplines of scientists on the Foundation's Board and in preparatory committees. Other Board members represent financial and political expertise. The Foundation thereby has a unique position as a multidisciplinary intermediary between research and other central public interests.

Financial administration

Foundation investments

1990 was a dramatic year from a financial point of view. Both the stock markets and real estate markets recorded dramatic losses in value all over the world. The credit market in many countries also experienced major disruptions.

Financial developments in Sweden in 1990 displayed the same general trends. Prices fell on the Stockholm Stock Exchange by about 30% that year - a bigger fall in prices than on most major stock exchanges (except in Tokyo). The drop in value of commercial real estate in Sweden was of about the same magnitude. Interest rates in Sweden were also turbulent during the year.

Already at the end of 1989, Swedish interest rates had risen considerably (cf. the 1989 Annual Report). In February-March 1990 there was considerable nervousness on the currency market with a major outflow of foreign exchange from Sweden in conjunction with the bank conflict and the government crisis. A tightening up of monetary policy then led to a further rise in the level of interest by a few more percentage points. During the spring and summer, interest dropped to about the same level as at the beginning of the year.

The conflict in the Persian Gulf at the beginning of August led to a rise in international interest rates. In combination with a weak economy, this led to renewed unrest on the foreign exchange market at the beginning of October. The Bank of Sweden again raised the bank rate. The interest on 6-month treasury bills rose to about 17%. The bank rate was reduced during the rest of the year.

Developments on the stock market were no less dramatic. Prices on the Stockholm Stock Exchange dropped somewhat at the beginning of the year but recovered in the spring and summer. At the beginning of August, with the Kuwait crisis as the triggering factor, a very considerable drop in share prices occurred both in Sweden and in most other countries. From 2nd August to the end of the year, prices on the Stockholm Stock Exchange dropped by more than 34%.

At the beginning of 1990, the Foundation owned shares and convertibles valued at about SEK 480 million (procurement value), about SEK 440 million Swedish shares and convertibles and SEK 40 million foreign shares.

Without in any way foreseeing the Kuwait crisis or the extreme drop in share prices, the Foundation was relatively sceptical about the Swedish rise in prices in the spring and summer of 1990. So the Foundation sold a relatively large number of shares for steadily rising prices and bought foreign shares instead. Some Swedish shares were sold during the autumn of 1990. Even if the Foundation's total share holdings at the end of 1990 were of about the same magnitude (calculated in procurement value) as at the beginning of the year (SEK 473 million compared to SEK 480 million), there was a shift towards a greater proportion of foreign shares (SEK 121 million compared to SEK 40 million).

In 1990 the Foundation also pursued a more or less systematic strategy in which purchase options were pledged against the Foundation's share holdings. At the end of the year, the Foundation had issued purchase options on shares amounting to a total sales value of about SEK 67 million.

At the end of 1990, the Foundation's bond holdings were of the same magnitude as at the beginning of the year, i.e. SEK 953 million compared to SEK 949 million (procurement value). During the year, however, relatively large gross sales and gross acquisitions of bonds took place. The Foundation utilised the prevailing interest turbulence to increase the average yield on its bond portfolio and to extend the maturity of its bond portfolio.

As in 1989, the Foundation in 1990 only acquired bonds issued by housing financing

institutes (such as the *Stadshypotekskassan*). In the Foundation's view, the credit risks are minimal with investments of this type. As a result of e.g. the crisis occurring in Swedish finance companies, the interest differential between these mortgage bonds and government bonds increased, however, from about 0.4 percentage points to about one percentage point by the end of 1990.

Especially towards the end of the year, the Foundation chose to maintain a relatively high degree of liquidity. Uncertainty about future trends in share prices and bond interest rates justified this strategy. The level of interest on short-term investments was also considerably higher than the level of interest on more long-term securities. The Foundation's liquidity in the form of bank deposits and short-term commercial paper amounted to SEK 360 million at the end of the year (compared to SEK 260 million the previous year). A number of Swedish finance companies encountered major difficulties in the autumn of 1990. Some finance companies were forced to suspend payments. The Foundation's investments in the money market were not affected in any way by this crisis.

Book outcome

The outcome of the Foundation's investments in 1990 is reflected in the Income Statement. The sum of all sources of income, incl. profit/loss on the sale of various securities, minus running expenses, is listed under "Book outcome before allocations and research grants" in the Income Statement. This book outcome (profit) amounted to SEK 167 million. This is less than in 1989 when it amounted to SEK 193 million.

Interest revenue from bank deposits, commercial paper and bonds (SEK 155 million) was also the Foundation's biggest income item by far even in 1990. However, interest revenue was somewhat less than in 1989 (SEK 158 million), despite a higher level of interest in 1990 than in 1989. This is because the Foundation's holdings of interest-bearing assets was greater in 1989 than in 1990. The Foundation's 1989 share acquisitions began relatively late the year. In 1990, share holdings averaged about SEK 480 million. The larger average share holdings are reflected in the Foundation's 1990 revenue in the form of share dividends, more than SEK 9 million compared to more than SEK 5 million 1989.

Income derived from the purchase options, issued by the Foundation and which either matured without profit (for the buyer) or which the buyer took up, i.e. purchased shares from the Foundation, is reported as "option premiums". When the Foundation bought back previously issued purchase options, the difference between the premium received and premium paid is reported as "capital gains/loss". Premiums received for options maturing *at the turn of the year* are reported among liabilities in the Balance Sheet ("pre-paid option premiums").

The main reason for a lower book outcome in 1990 than in 1989 is the fact that the Foundation sustained rather considerable capital losses on its sale of bonds in 1990, losses which, however, were more than offset by unrealised capital gains (and higher yield) which Foundation bond acquisition led to. (Cf. "Real Profit" and "Performance".)

SEK 95 million of the year's book outcome of SEK 167 million remained after approved grants to research. This entire amount was transferred to the profit regulation fund.

Real Profit

From 1989, *real* profit has also been calculated for Foundation's financial activities. Foundation assets, whose yield is included in book outcome, is subject to price/rate fluctuations. The Foundation can always elect to either sell securities, thereby

converting an asset into *realised* capital gains/losses, or leaving securities in the Foundation's portfolio to appreciate/depreciate in value there. In the latter option, *unrealised* capital gains/losses occur.

For any institution working on a long-term basis, such as the Bank of Sweden Tercentenary Foundation, the financial report for any year would be incomplete without an account of unrealised capital gains/losses for its assets. So the Income Statement has been supplemented with the value of unrealised capital gains/losses.

The net outcome of unrealised capital gains/losses was a loss of about SEK 106 million for the year. Underlying this net figure is a significant decline in the value of the Foundation's share portfolio (SEK 154 million). This decline was offset to some extent by a SEK 42 million increase in the value of the bond portfolio. An increase in the value of the site in Atlanta, Georgia, in which the Foundation has been a part-owner since 1989 has also been included in unrealised profit.

The Foundation does not have any statutory stipulations on capital growth. However, preparatory notes for our existing statutes underline the importance of preserving the *real value* of holdings if the Foundation is to be in a position to play a role in future research promotion.

So the Foundation decided - from 1989 - to transfer a sum equivalent to the decline in the value of money to donation capital in the real financial report. The rate of inflation, measured as the average for the consumer price index in 1990 compared to 1989, amounted to 10.4%. So SEK 166 million was transferred to donation capital in order to preserve the latter's real value. Accordingly, the entire profit regulation fund of SEK 97 million had to be utilised, leading to a deficit of SEK 80 million.

1990 changes in the Foundation's equity capital after book and real outcome are described in not 15.

Performance

Two targets, or objectives, were established for the Foundation's financial activities:

1. Grants to research must be annually incremented - when possible - by about the same percent as changes in the consumer price index.
2. If the first condition is to be met, donation capital must be annually incremented from revenue so it retains its real value.

It is easy to see that the Foundation was unable to achieve these targets in 1990.

The Foundation is wholly dependent on developments on the finance market. If Swedish economy does well (or poorly), then the Bank of Sweden Tercentenary Foundation does well (or poorly) in economic respects.

The Swedish economy - and hence the Bank of Sweden Tercentenary Foundation - fared poorly in 1990. However, it may be interesting to see just *how* poorly the Foundation's financial activities fared with a view to the prevailing conditions.

Many theories and models are employed in making such comparisons. Models vary in sophistication, and all have weaknesses in one respect or another. Here, we shall use a very simple procedure, based wholly on information extracted from the present financial report.

A tabulation, consisting solely of financial items, can be derived from the Income Statement (and the various notes). These items are grouped according to the type of underlying value.

Financial outcome for 1990 (SEK 1.000.000)

Assets	Revenue/Cost		
Bank deposits	Interest revenue	7	
Commercial papers	Interest revenue	33	40
Bonds	Interest revenue	114	
	Realised loss	-27	
	Change in unrealised loss	42	129
Shares, convertibles and options	Dividends and interest	10	
	Realised profit, shares	52	
	Realised loss, shares	-13	
	Change in unrealised loss, shares	-154	
	Option premiums	6	
	Realised profit, options	2	
	Change in unrealised profit, options	3	
	Financial expenses	-8	-102
Shares in real estate companies	Change in unrealised profit	3	3
			70

The financial outcome for an institution as the Foundation in which "all sensible and rational investments in shares, bonds, real estate, etc are permissible is governed, perhaps primarily, by changes in the proportions of various types of assets.

Interest revenue from bank deposits amounted to SEK 7 million. When calculated in the value of bank deposits at the beginning of the year, this results in a "yield"^{1,2} of 13%.

Interests revenue from short-term commercial paper amounted to SEK 33 million. When calculated in the value of commercial paper holdings at the start of year, this results in a "yield" of 16%.

A corresponding calculation can be made for the Foundation's bond management. As previously reported, the Foundation sold bonds for a relatively large amount in 1990. Most of these bonds had been acquired in 1989 at interest rates around 11—11.5%. This means that the Foundation sustained relatively large capital losses in 1990, i.e. SEK 27 million. In the same year, the Foundation also acquired other bonds with longer maturities and higher interest rates. As a result, the unrealised change in value improved by SEK 42 million. Thus, the net result of realised and unrealised changes in value amounted to SEK 15 million, an increase of 1.7% in relation to the value of the bond portfolio (market value) at the beginning of the year. By way of comparison, the value of 5-year mortgage bonds dropped by about 0.5% in 1990. Interest yield on our bond holdings rose by about 1.5 percentage points.

Another way of expressing the same thing is to total all revenue and costs for bond

¹ Note that this is not the same as mean yield. Here, net yield is always related to the value of assets at the start of the year.

² Note that the percentile yield is calculated in thousands of Swedish crowns. These sums will be found in the financial statement's notes.

management and relate the result to the market value of the bond portfolio at the beginning of the year.

Net revenue from bond management amounted to $(114 - 27 + 42) = \text{SEK } 129$ million. This results in a 14% yield when these figures are related to the bond portfolio at the beginning of the year.

The Foundations *stock management* in 1990 resulted in a loss of SEK 102 million. This figure includes dividends, realised profit/loss and even the rise in unrealised capital losses. All revenue from options management is also included. Options management is an integrated part of the Foundation's stock management. Total financial costs have been assigned to stock management in the tabulation above.

If the net result of the Foundation's stock management (SEK -102 million) is related to the opening value of the stock portfolio (market value, i.e. SEK 512 million), a loss of 20% will be found. As previously noted, prices on the Stockholm Stock Exchange fell by 30% in 1990.

In the fact that the share price index from the Stockholm Stock Exchange does not include share dividends is taken into account, the following relationship is obtained: The Foundation's loss on stock management (not including dividends) is then SEK 112 million. In relation to the stock portfolio at the beginning of the year, a loss of more than 22% will be found.

Nor does the share price index include any transaction costs. Opinions differ on the best way to report these costs in this kind of comparison. If transaction costs are not include, the Foundation's loss is only SEK 104 million, i.e. less than 21%.

The main reason why the Foundation's loss on stock management could be limited is because the Foundation, as early as the spring and summer, began selling a large number of Swedish shares. Realised capital gains amounted to SEK 52 million. There was also an increase in the proportion of foreign shares. The fall in prices for this stock was less than for Swedish shares.

According to an external valuation commissioned by the Foundation, the value of the Foundation's *share in a site* in Atlanta, Georgia, was U.S. \$5.153 million. This represents an increase in value of 29%, expressed in U.S. dollars. However, the increase in value, expressed in Swedish crowns, was limited to 13.4% in 1990 because of the fall in the value of the dollar.

In a situation in which Swedish share prices have fallen by 30% and in which rates for Swedish bonds have continued to fall somewhat, the Foundation is able to report a financial net surplus of SEK 70 million in nominal terms. This is not enough to sustain the Foundation's grant-awarding capacity, especially in real terms. The Annual Report clearly shows how high inflation greatly erodes the value of donation capital.

Income statement (SEK 1.000)

	Note	1990	1989
Interest revenue	1	155.226	157.809
Share dividends		9.224	5.306
Option premiums		5.824	4.895
Realised capital gains	2	53.931	52.799
Realised capital losses	2	-40.946	-3.084
Other revenue	3	60	340
Financial costs	4	-7.727	-17.514
Administration costs	5	-8.528	-7.535
<i>Book outcome before research grants awarded</i>		167.064	193.016
Research grants awarded	6	-72.162	-70.951
<i>Book increase in equity capital after research grants awarded</i>		94.902	122.065
Increase in unrealised capital losses	7	-106.224	-34.942
Allocation to preserve real value of donation capital	8, 15	-166.140	-97.500
<i>Real decline in equity capital after research grants awarded</i>	15	-177.462	-10.377

Balance sheet (SEK 1.000)

	Note	1990-12-31		1989-12-31	
		Book values	Market values	Book values	Market values
<i>Assets</i>					
Cash		58.891	58.891	56.635	56.635
Commercial paper	9	300.996	300.996	206.852	206.852
Bonds etc.	10	952.766	939.564	949.365	894.552
Shares & convertibles	11	473.426	340.808	480.048	501.550
Shares in real estate company	12	25.866	29.334	25.866	25.866
Accrued interest revenue		59.390	59.390	60.064	60.064
Other receivables				123	123
<i>Total assets</i>		1.871.335	1.728.983	1.778.953	1.745.642
<i>Liabilities and equity capital</i>					
<i>Liabilities</i>					
Pre-paid call premiums	13	1.398	212	2.563	4.194
Approved but as yet undischursed grants		44.233	44.233	45.200	45.200
Other liabilities	14	932	932	1.320	1.320
<i>Total liabilities</i>		46.563	45.377	49.083	50.714
<i>Equity capital</i>					
Donation capital	15	1.500.000	-	1.500.000	-
Index incrementation of donation capital	8	-	1.763.640	-	1.597.500
Profit regulation fund		324.772	-80.034	229.870	97.428
<i>Total equity capital</i>		1.824.772	1.683.606	1.729.870	1.694.928
<i>Total liabilities and equity capital</i>		1.871.335	1.728.983	1.778.953	1.745.642

Notes (amounts in SEK 1,000)

Note 1 Interest revenue		1990	1989
Bank deposit		7.398	6.838
Commercial paper		33.374	94.296
Bonds		114.008	56.369
Convertibles		446	306
		155.226	157.809
Note 2 Realised capital gains/losses		1990	1989
		Profit	Loss
Bonds		–	27.434
Shares and convertibles	51.844	13.168	49.966
Options	2.087	344	1.448
		53.931	40.946
		52.799	3.084
Transaction costs in the form of turnover tax and brokerage fees are not included in "realised capital gains/losses". These costs are reported separately. See note 4.			
Note 3 Miscellaneous revenue		1990	1989
Revenue from publish grants approved by the Foundation		15	59
Non-utilised grants		45	281
		60	340
Note 4 Financial expenses		1990	1989
Turnover tax		5.403	12.437
Brokerage fees		2.191	4.832
Safe custody fee		133	245
		7.727	17.514
Note 5 Administration costs		1990	1989
Salaries and reimbursement to – the Board and Managing Director		1.174	1.098
– Other staff		1.958	1.733
Payroll overhead		1.125	1.089
Pension fees		1.085	–
Auditing and auditing consultation		233	210
Other consultancy costs		261	370
Costs for premises		1.122	1.136
Travel and allowances, office and Board		460	425
Fixtures and fittings		396	741
Miscellaneous		714	733
		8.528	7.535
Mean number of employees during the year		9	9
of which women		6	6

The procurement of machinery and equipment was booked as expenses. SEK 747.000 of the pension fee is a non-recurrent cost.

Note 6 Research grants		1990	1989
Project grants		69.223	68.277
Administrative fees to universities		1.895	1.794
Vetting by experts		557	478
Conferences, information, etc.		487	402
		72.162	70.951

Note 7 Unrealised capital gains/losses		1990	1989	Change
		Profit	Loss	
Bonds		–	13.202	41.611
Shares and convertibles		–	132.618	–154.120
Options		1.186	–	2.817
Shares in property Co.		3.468	–	3.468
		4.654	145.820	–106.224

Cf. The comment on page 13

Note 8 Allocation for preservation of donation capital's real value
The average value for the Swedish consumer price index in 1990 was 207.6. The corresponding figure for 1989 was 188.1. Thus, the consumer price index rose by 10.4% from 1989 to 1990.
So the allocation for preservation of donation capital's real value
 $1.597.500 \times 0,104 = \text{SEK } 166.140$
Also see the text comment on page 13.

Note 9 Commercial paper in 1990		Book value	Nominal value
Treasury bills		74.970	79.000
Bank commercial paper		39.484	40.000
Commercial paper issued by credit companies		86.490	90.000
Bank subordinated loans as – Floating-Rate-Note-loans		50.052	50.000
– Variable-Rate-Note-loans		50.000	50.000
		300.996	309.000

At the end of 1989, the Foundation held short-term commercial paper, including FRN and VRN, with a book value of SEK 206.852.000 (nominal value SEK 210.000.000).

The Foundation decided to list book values (procurement values) for short-term commercial paper in the Balance Sheet.

Note 10 Bonds in 1990

Urban mortgage bank bonds maturing in the following year	Nominal value	Book value	Market value
1991	20.000	19.276	19.134
1992	20.000	18.907	18.918
1993	50.000	48.902	46.841
1994	665.000	630.970	615.409
1995	180.000	162.123	163.638
1996	20.000	17.827	18.671
1997	60.000	54.761	56.953
	1.015.000	952.766	939.564

At the end of 1989, the Foundation's bonds, exclusively urban mortgage bank bonds and debenture loans issued by urban mortgage banks, had a book value of SEK 949.365.000 (nominal value SEK 970.000.000).

Note 11 Share holdings in 1990, Swedish shares

Share	Number	Nominal value	Book value	Market value	Currency
AGA A restr.	22.000	550	5.830	5.610	
AGA B restr.	87.600	2.190	23.640	21.900	
Alfa A restr.	36.600	458	6.738	6.771	
ASEA A restr.	50.000	2.500	33.186	24.250	
Astra A restr.	30.350	759	8.930	14.113	
Atlas A unrestr.	37.500	938	10.938	6.000	
Atlas B unrestr.	66.894	1.672	19.240	10.369	
Ericsson B unrestr.	124.560	3.114	20.021	22.919	
Esselte B restr.	10.000	125	2.300	980	
Hasselfors B restr.	20.000	500	4.800	3.300	
Modo Kvb C	58.500	5.850	17.960	10.589	
Perstorp restr.	52.500	525	14.346	9.398	
Reinhold S	10.000	100	980	400	
SEB A	98.300	983	9.290	5.505	
Skanska restr.	96.300	963	52.957	27.253	
SKF B unrestr.	111.700	1.396	17.610	7.372	
SKF B restr.	143.900	1.799	21.006	9.497	
Skoogs	115.000	2.875	13.517	6.728	
SSAB B unrestr.	50.000	5.000	8.378	4.000	
Stora A restr.	23.700	593	8.059	5.925	
Stora B unrestr.	49.700	1.243	19.879	12.624	
Total Swedish shares			319.605	215.503	SEK
Convertibles					
		Nominal value	Book value	Market value	Currency
ASEA 12% 1985/1991		3.318	8.210	7.300	
Ericsson 11.25% 1987/1993		6.625	24.328	21.863	
Total convertibles		9.943	32.538	29.163	SEK

Foreign shares

	Number	Nominal value	Book value	Market value	Currency
Parker Drilling	150.000	2.500.005	1.278	1.031	USD
Pfizer	10.000	1.000	745	808	USD
Smith Corona	50.000	500	900	275	USD
ASIT	500.000	125.000	4.750	3.000	SEK
ASIT subscr. Opt	100.000	-	207	100	SEK
Bergesen B	23.000	57.500	4.957	2.565	NOK
Deutsche Bank	8.035	401.750	5.540	4.797	DEM
Hoesch	5.000	250.000	1.403	1.005	DEM
Mannesmann	4.500	225.000	1.350	1.184	DEM
Siemens	1.900	95.000	1.359	1.112	DEM
Veba	13.300	665.000	5.185	3.943	DEM
Nestle	1.400	28.000	2.375	1.925	CHF
Sandoz PS	540	27.000	1.176	964	CHF
UBS	353	35.300	1.306	967	CHF
Zürich I	500	25.000	861	940	CHF
Paris Dev.	50.000	100	5.000	5.000	FRF
Bouygues	7.000	350.000	4.718	3.143	FRF
Fokker	34.000	340.000	1.599	1.017	NLG
Total foreign shares			121.283	96.142	SEK
Total shares and convertibles			473.426	340.808	SEK

The final buying rate was used when the market value was calculated for shares. In the conversion of the value of foreign shares to Swedish kronor (SEK), the banks' buying rate for the respective currency on the last bank business day in December was used.

Note 12. Shares in property companies

In 1989 the Foundation became a part-owner (partner) of an American partnership, Peachtree Place Partnership, which has acquired a plot of land in central Atlanta, Georgia. The Foundation's share of invested capital amounts to 40%, i.e. USD 3.987.928. The procurement (book) value was SEK 25.866.000.

According to an external valuation which the Foundation had performed in October 1990, the value of the Foundation's share amounted to USD 5.153.150. This value, converted into Swedish kronor at the rate of exchange prevailing on 31st December 1990, i.e. SEK 29.334.000, has been listed as the "market value" in the Balance Sheet.

Note 13 Pre-paid option premiums in 1990

Underlying shares	Retirement price	Retirement date	No. of shares	Book value of premiums received	Market value of options
ASEA A restr.	600	Feb.-91	20.000	140	20
ASEA A restr.	720	Feb.-91	10.000	70	10
Astra A restr.	560	Feb.-91	18.000	61	27
Atlas A unrestr.	190	Feb.-91	7.000	70	26
Atlas A unrestr.	230	Feb.-91	30.000	245	38
Ericsson B unrestr.	210	Jan.-91	10.000	79	7
Ericsson B unrestr.	260	Jan.-91	40.000	220	2
Ericsson B unrestr.	270	Jan.-91	26.000	124	2
Ericsson B unrestr.	250	April-91	20.000	125	40
SEB A restr.	70	Jan.-91	79.000	264	40
Total premiums for issued purchase options				1.398	212

The purchase options issued for shares in the Foundation's portfolio had a total sales price of SEK 67.560.000. The book value of these shares amounted to SEK 58.891.000.

Note 14	Miscellaneous liabilities	1990	1989
	Employee taxes withheld	92	88
	Compulsory employee savings	—	3
	Payroll overhead	126	120
	Interim liabilities	27	—
	Unutilised vacation	27	42
	Accrued pension fee	520	—
	Other accrued costs	140	68
	Purchased but as yet unpaid securities	—	999
		932	1.320

Note 15. **Equity capital**

Nominal capital

	Donation Capital	Profit regulation fund
Equity capital on 31 Dec. 1989	1.500.000	229.870
This year's allocation	—	94.902
Equity capital on 31 Dec. 1990	1.500.000	324.772

Real capital

	Donation capital	Profit regulation fund
Equity capital on 31 Dec. 1989	1.597.500	97.428
Allocation to preserve the real value of donation capital	166.140	
Real decline in equity capital after approved research grants	—	-177.462
Equity capital on 31 Dec. 1990	1.763.640	-80.034

Stockholm, 8th February 1991

Kjell Härnqvist <i>Chairman</i>	Lars Svensson <i>Deputy chairman</i>	Britta Bjelle
Barbara Cannon	Birgitta Hambraeus	Berit Löfstedt
Lennart Holmström	Arne Kjörnsberg	Walter Korpi
Lars Tobisson	Jarl Torbacke	Sten Wikander
Nils-Eric Svensson <i>Managing Director</i>		

Auditors Report

We have audited the Annual Report, Foundation accounts and the administration by the Board of Directors for the year 1990. The audit was carried out in accordance with accepted auditing practices.

The audit disclosed nothing warranting any criticism of the Annual Report, Foundation accounts or the administration by the Board of Directors and Managing Director of the Foundation's affairs. In our view, the accounts provided a true picture of the Foundation's financial position and were prepared in accordance with accepted accounting practices.

Stockholm, 12th February 1991

Ernst & Young AB

Per Björngård
Chartered Accountant

New research projects in 1990

Pages 25–36 below contain summaries of project plans for the new research projects which were the recipients of Foundation grants in 1990.

The texts were written by the scientists themselves and taken from the "Summary of the project's objectives, importance and implementation" section of grant application forms.

The project titles were selected by the scientists and taken from the grant application forms.

Economic History

Johan Söderberg, Stockholm

SEK 80.000

Dnr 90/50

Civilisation theory and historic research

The project entails systematization of civilisation theories and processes in the West. The second part of the project will examine the historical course of the civilisation process.

Lennart Schön, Lund

SEK 350.000

Dnr 90/143

Sweden in an international market integration – Price and capital movements in the 19th and 20th centuries

The aim of the project is to shed light on Sweden's integration into the international market in the middle of the 19th century, its adaptation to the international price structure and the Swedish credit market's links with international capital movements.

Christer Gunnarsson, Lund

SEK 340.000

Dnr 90/168

*Exports of capital from East Asian NICs
- Taiwanese investments in Thailand*

The study will employ primary material on investments, interviews with industrialists and decision-makers and analyses of Taiwan's role in the economy to examine an autonomic state's ability to control its economy.

Business Administration

Hans Jansson, Lund

SEK 150.000

Dnr 90/41

Management, Capital and Control – the economic sphere's function in Sweden

The study will attempt to explain the economic function in Sweden via institutional transaction cost theory. One underlying interest is to ascertain whether conditions can be undermined by international capital markets and management.

Carl Thunman, Uppsala

SEK 285.000

Dnr 90/197

Strategic relationships on financial markets – Interaction between banks and corporate customers

The project will concentrate on the banks' relationships with its corporate customers and explain why links co-vary with various services, the parties' characteristics and the surroundings.

Sten Jönsson, Göteborg

SEK 650.000

Dnr 90/354

Confidence as an asset in the drive towards rationality

Employing case studies of communications in organisation processes, the study will shed light on the correlations between good dialogue and the formation of confidence in action-oriented organisations.

Economics**Bo Södersten, Lund****SEK 525.000**

Dnr 90/223

Studies of trade theory in situations with imperfect competition

International research on trade theory in conditions with imperfect competition will be the project's starting point. It will attempt to apply the theory to new fields and to make contributions to it. The new theory will be used for econometric tests.

Stefan Hedlund, Uppsala**SEK 225.000**

Dnr 90/250

The drama of Soviet Central Asia

The aim of the project is to document and analyse the ecological disaster presently occurring in Soviet Central Asia. Empirical studies will collect information on the area's economic and social history.

Henrik Horn, Stockholm**SEK 400.000**

Dnr 90/268

Organisational efficiency and international competition

The present project is examining the interplay between corporate internal organisation and external market conditions. A number of economic phenomena can be traced to this interplay, such as the importance of international competition to a company's incentive to organise its activities efficiently.

Cultural Geography**Einar Holm, Umeå****SEK 500.000**

Dnr 90/214

Time for training? A study of knowledge formation's temporal geography

The aim of the project is to shed light on the way temporal and geographic restrictions on the activities of teachers, graduate students and undergraduate students affect internal and external knowledge productivity at Swedish universities, to examine the factors influencing these restrictions and to evaluate and apply a method permitting evaluation of alternative forms of organisation.

Education**Bengt-Erik Andersson,***Stockholm Teacher Training College***SEK 100.000**

Dnr 90/7

The long-term effects of child care and other circumstances in childhood on the development of children in late adolescence

This project is phase 3 in a longitudinal study of families with children. 128 families have been followed to date, their children having reached year six in compulsory comprehensive school. The follow-up study will cover children up to school year nine when they will be 16 years of age.

Sten Henrysson, Umeå**SEK 120.000**

Dnr 90/123

The History of schooling for Laplanders 1900-1950

The aim of the project is to describe and analyse the schooling provided for Swedish Laplanders 1900-1950. The education was intended to provide all Laplanders with a basic education while contributing to the preservation of the ir nomadic way of life.

Charles Westin, Stockholm**SEK 600.000**

Dnr 90/314

International migration and crime: Perpetrators and victims in the light of ethnic relationships, cultural differences and life situations

The study will be studying international migration and crime from Swedish and international perspectives. Special attention will be devoted to victim/perpetrator aspects, and the entire problem will be examined in the light of ethnic relationships, cultural differences and the life situations of immigrants both in the host country and their countries of origin.

Psykologi**Bengt-Åke Armelius, Umeå****SEK 300.000**

Dnr 90/80

Coordinated research on treatment homes for psychotic patients

The aim of the project is to coordinate research on more than 20 small treatment homes with psychotic and borderline patients. This coordination will be achieved by means of a common time framework (5 years) and common methods for diagnosis and data acquisition.

Lars R. Bergman, Stockholm**SEK 200.000**

Dnr 90/158

Problem girls as adults

Adaptation problems in girls have not been studied as frequently as in boys. The present project, comprising a comprehensive, longitudinal study lasting more than ten years, will address this research shortfall whose subjects will be more than 500 girls from a medium-sized Swedish town.

Karin Tengvald, Tema H Linköping**SEK 250.000**

Dnr 90/244

Changed psychiatry? A study of sectorised psychiatry in collaboration with social welfare services.

The project will address questions such as: What are the material and cultural prerequisites for collaboration between social welfare/home help services and out-patient psychiatric care? Are care services acquiring new content in more open care methods?

Stefan Hansen, Göteborg**SEK 400.000**

Dnr 90/374

The neurobiology of emotional behaviour: Biological mechanisms underlying social behaviour and rewards

This project comprises separate studies to elucidate, by means of special examinations of the rewards and their neurochemical basis, the brain mechanisms which mediate positive emotions.

Sociology**Richard Swedberg, Stockholm****SEK 50.000**

Dnr 90/35 PL

EC (the European Community) and the work environment: a sociological study of the EC, the national state and the work environment

The main object of this study is to shed light on and analyse the EC's decisions on the work environment from the sociological point of view. In this context, the emergence of the national state and the work environment as a product of a conflict of interests between employees will be studied.

Göran Therborn, Göteborg**SEK 500.000**

Dnr 90/130

The sociology of Western Europe

The aim of the project is to describe, explain and predict future development trends for Western Europe's social structure, living patterns and social movements. The project is part of a larger international work on European history.

Bengt Furåker, Umeå**SEK 400.000**

Dnr 90/135

Labour market policies and structural changes. A comparative study of Canada and Sweden.

The project is an independent part of a major Swedish-Canadian study whose aim is to study the importance of labour market policies in conjunction with structural changes in the economy.

Robert Erikson, Stockholm**SEK 600.000**

Dnr 90/163

1991 Cost of Living Study

The project will constitute a 1991 replication of the three previous cost of living studies (LNU) for the purpose of updating the existing LNU database.

Aleksandra Ålund, Umeå**SEK 50.000**

Dnr 90/334 PL

Immigrant youths and the syncretic culture

The project will be studying the development of new inter-cultural forms of expression in contemporary Sweden. New creative attitudes and lifestyles appear to serve as the basis of a constructive "syncretic" culture.

Carl-Gunnar Janson, Stockholm**SEK 300.000**

Dnr 90/408

Forms of deviation

The study intends to analyse the degree of correlation between different forms of deviation, including the persistence of the forms, their generality, properities and early life.

Anthropology**Alf Hornborg, Uppsala****SEK 50.000**

Dnr 90/393 PL

Fight for the environment and identity on Cape Breton: social and existential prerequisites for criticism of society

The project will shed light on the way in which an apparently simple message may actually be a discourse on multiple levels, used by different groups for different social purposes.

Political Science**Kent Asp, Göteborg****SEK 375.000**

Dnr 90/113

Media logic – studies of journalism and politics

The aims of this project are to analyse the factors which govern media news coverage of political and social topics and to study the way in which new media influence the political decision-making process.

Bo Bjurulf, Lund**SEK 350.000**

Dnr 90/125

Election trends and stabilisers in a European perspective

The project will analyse stabilising factors related to the development of and changes in election trends. The study will consider structural and formal stabilising factors in election systems and the electorate.

Magnus Isberg, Stockholm**SEK 360.000**

Dnr 90/229

Political party groupings in the Riksdag

The main issue in this study will be to identify how and why the Riksdag's party groupings have changed after their inception. The organisation of the party groups will be a central subject of study.

Karin Hadenius, Uppsala**SEK 350.00**

Dnr 90/432

Swedish and U.S. education policies in the runup to the year 2000

The purpose of the study will be to analyse contemporary Swedish and U.S. educational policies, i.e. the manner in which Sweden and the U.S. respectively respond in word and deed to what is referred to as the "school crisis".

Statistics**Göran Broström, Umeå****SEK 150.000**

Dnr 90/28

Computer-intensive methods and life analysis

Theoretical aspects of life analyses will be studied with methods demanding intensive computer processing, such as Monte Carlo simulations, interactive graphics and the development of software for calculating parameter estimates with the aid of numerical derivation and intergration.

Ulf Beijbom, Swedish Emigration Institute SEK 300.000

Dnr 90/13

Swedish-American "national bibliography" on material in Swedish published in the U.S.

The Swedish Emigration Institute plans to start ADB-based registration of Swedish language material published in the U.S. This bibliography is to be published in the Institute's series of publications as the second stage in creation of a final Swedish-American bibliography.

Tom Ericsson, Umeå SEK 300.000

Dnr 90/29

Religion and social conflict. Pietists in coast district of northern Sweden 1800-1830

The project will be examining the pietist movement in the most northerly Swedish province, Norrland, at the beginning of the 19th century. The project consists of two closely related parts, i.e. an ideological section and a social history analysis.

Kim Salomon, Lund SEK 315.000

Dnr 90/68

Towards a new political culture: The FNL movement in Sweden

The FNL movement apparently played a major role in Sweden's Vietnam debate and initiated new trends. The project will attempt to explain the FNL movement's growth and evolution and to discuss its objectives, methods and importance.

Ann-Sofie Ohlander, Uppsala SEK 50.000

Dnr 90/90 PL

New parenthood? A study of Sweden's 1973 parental insurance with the emphasis on the relationship between father and child

The aim of the project is to elucidate and analyse changes in the public perception of the parent-child relationship over the past three decades.

Francisco Lacerda, Stockholm SEK 450.000

Dnr 90/150

Ontogenetic study of the children's speech perception

Employing experimental methods, the project will follow the evolution of children's perceptual, motor and acoustic behaviour and integration in the first year of life. The project's development of automated examination methods and data acquisition will have practical relevance in paediatric audiology and general paediatrics.

Lars Ragvald, Lund SEK 300.000

Dnr 90/193

Chinese-Swedish dictionary and database

The project, commenced in 1989, will result in the spring of 1991 in a Chinese-Swedish dictionary comprising the general vocabulary in modern Chinese, the most important technical terms and a flexible, comprehensive database.

Gisela Håkansson, Lund SEK 300.000

Dnr 90/211

Development of language under deviant conditions

The aim of the project is to compare language development in children in differing learning circumstances. The study will be longitudinal and include a number of different contexts.

Inger Ahlgren, Stockholm SEK 500.000

Dnr 90/293

Computer-based dictionary for Swedish sign language

The project will lay the foundation for a systematic inventory of the signs in Swedish sign language and establish procedures for storage and retrieval of signs from the database.

Göran Sörbom, Uppsala SEK 200.000

Dnr 90/366

A new interpretation of Greek revolution art

The proposed project advocates a new approach to the Greek revolution art. The project will follow the clues provided in Xenophon's *Memabilia* in an effort to understand and interpret classical Greek art from another point of view than has hitherto been the case in art history.

Kjell Östberg, Stockholm SEK 320.000

Dnr 90/399

Social Democracy, municipal politics and social integration 1910-1930

The project will be examining the role played by municipal politics in the integration of Social Democracy 1910-1930.

Maria Nikolajeva, Stockholm SEK 275.000

Dnr 90/431

Swedish turn-of-the-century literature in Russia

The project comprises a study of the reception given to Swedish turn-of-the-century literature in Russia, i.e. translation, criticism and research. This will be pioneering work, as there has been virtually no research on Swedish literature in Russia at this time.

Dag Nordmark, Umeå SEK 180.000

Dnr 90/447

On the periphery. Swedish touring provincial theatre companies in the 19th century

The project will describe Swedish touring provincial theatre companies during that form of entertainment's heyday, i.e. 1800-1885. The study will reexamine the widely held view that this form of theatre was merely a peripheral phenomenon.

Bo Nilsson, Lund**SEK 300.000**

Dnr 90/1

Brittle bones and fractures in a southern Swedish population. Causes and effects

The study will attempt to arrest the sharp increase in the prevalence of fractures caused by brittle bones, hip fractures in particular.

Claes Norring, Uppsala**SEK 275.000**

Dnr 90/136

Long-term follow-up of patients with anorexia nervosa/bulimia nervosa with respect to factors of importance to the course and prognosis

The study will perform a 6-year follow-up of female patients suffering from these disorders. The main purpose is to study the importance of personality, symptoms and demographic variables to the outcome after 4, 5 and 6 years.

Bo K Siesjö, Lund**SEK 250.000**

Dnr 90/195

Experimental studies of acute brain lesions in stroke, other cerebrovascular disorders and insulin overdosage: causal mechanisms and treatment principles

This project aims at attaining better definitions of the cellular and molecular causes of damage to nerve and connective tissue cells in these conditions, especially the mechanisms triggered by the loss of cellular calcium and pH balance regulation.

Ingemar Kjellmer, Göteborg**SEK 250.000**

Dnr 90/239

Intrauterine growth restriction – a multidisciplinary study of a health risk with long-term consequences

The aim of the study is to shed light on the relationship between placental blood perfusion, the transport of glucose and amino acids across the placental membrane and intrauterine growth restriction in animal models.

Per-Anders Rydelius, Karolinska institutet**SEK 250.000**

Dnr 90/249

The health and development of children with a special view to the home environment

A longitudinal prospective study will follow the health and development of children, starting with the beginning of pregnancy, so as to test a hypothesis on the development of asocial behaviour and its possible link to the home environment.

Robert Olin, Karolinska institutet**SEK 150.000**

Dnr 90/264

Sexuality and narcotics abuse – during an ongoing HIV epidemics. An interdisciplinary project

The aim of the project will be to shed light on the risk of the sexual spread of HIV from mainlining addicts to the general population. The planned study will comprise both HIV seronegative and HIV seropositive abusers of amphetamine and heroin passing through the Kronoberg detention center.

Stefan Alexson, Stockholm**SEK 125.000**

Dnr 90/313

The structure, synthesis and function of peroxisomes from biological and medical points of view

The project aims at increasing knowledge about cellular compartmentalisation, regulation of lipid metabolism and the biogenesis of the organelles participating in the metabolism on fatty acids

Laboratory Animals Board, MFR**SEK 50.000**

Dnr 90/376

Video film on laboratory animals

The Swedish Medical Research Council (MRF) has a laboratory Animals Board whose task is to monitor developments related to laboratory animals. The project concerns a video film to supply much-needed information to the public about laboratory animals.

Elisabeth Hansson, Göteborg**SEK 200.000**

Dnr 90/426

Astrocytes and moderators in the central nervous system – studies of receptor systems, uptake carriers and interactions with the anti-epileptic sodium valproate

The study will identify the receptors, second messenger systems and interaction between various receptors and second messengers and uptake carriers for neurotransmitters in astroglia cells in primary cultures, study the relationship between valproate and the IP system and monitor the rapid changes in Na⁺, K⁺ and Ca⁺ in individual cells after incubation in valproate.

Ulfur Arnason, Lund**SEK 200.000**

Dnr 90/27

Genetic characterisation of the threatened seal population in Swedish waters

The project will examine the Swedish seal population to determine its genetic characteristics. This documentation is important in identifying kinship between ringed seals and grey seals in the Baltic and their Atlantic relatives.

Reinhold Schuch,*Manne Siegbahn Institute of Physics (MSI)***SEK 300.000**

Dnr 90/40

Development of a new precision method for measuring atomic masses with highly charged ions in a Penning trap

The project will develop a Penning ion trap connected to a CRYISIS ion source at the MSI's CRYRING facility and study the properties of electron-deficient ions.

Bo Mattiasson, Lund**SEK 200.000**

Dn 90/44 PL

Enzyme reactions in organic solvents at low temperatures (cryo-bioorganic synthesis)

The project will examine the possibility of reducing hydrolytic activity at low temperatures in organic solvents whose temperatures can be reduced to a greater degree than in an aqueous environment.

Anders Delin, Uppsala**SEK 275.000**

Dnr 90/196

The flora in Hälsingland province

A final report will be prepared of a previous inventory and interim findings in respect to flora in a Swedish province, Hälsingland. The result should be a guide to people interested in botany and provide stimulating reading.

Göran Henriksson, Uppsala**SEK 320.000**

Dnr 90/311

Astronomical observations in Sweden in prehistoric times

The project will examine the astronomic position of immobile prehistoric relics, attempt to interpret intaglio images with celestial motives and to study celestial phenomena in the literature.

Bertil Andersson, Stockholm**SEK 250.000**

Dnr 90/315

Research on plant breeding and environmental toxicology. The role of quinones in the cell metabolism of plants and animals

The present project will be studying the role of quinones in preventing the harmful effects of toxic radicals in living cells.

Nils Lundqvist, Swedish Museum of Natural History**SEK 90.000**

Dnr 90/319

Processing E. Vrang's lichen herbarium

In 1940, the Royal Academy of Sciences received a donation comprising E. Vrang's collection of lichens (5.100 specimens) and lichen library. The project will integrate the Vrang herbarium with the Museum's general collection of lichens, making it more available to scholars.

Peter Ekblom, Uppsala**SEK 250.000**

Dnr 90/438

The importance of cell adhesion to foetal development

The aim of study is to examine the importance of certain cell adhesion molecules to the emergence of epithelial cells during foetal development. The study will employ microsurgery and monoclonal antibodies.

Martin Kanje, Lund**SEK 200.000**

Dnr 90/449

Regeneration of damaged peripheral nerves; the importance of insulin and insulin-like growth factors

The project will study whether insulin and insulin-like growth factor-1 are capable of serving as growth factors in the regeneration of peripheral nerves.

Birgitta Bergman, Stockholm**SEK 250.000**

Dnr 90/476

The presence, localisation and protection of the nitrogen-fixing enzyme nitrogenase against O₂ in cyanobacteria with and without heterocysts

The project will examine the mechanisms which are active in protecting nitrogenase against O₂ in cyanobacteria, marine forms in particular.

Leif Andersson, CTH**SEK 200.000**

Dnr 90/43

The ability of the oceans to dissolve carbon dioxide: aspects of marine chemistry and analysis

The project will attempt to solve marine chemistry and analysis problems of importance in evaluating the transport of carbon dioxide between the atmosphere and the oceans.

Karl-Erik Eriksson, CTH**SEK 340.000**

Dnr 90/144

Physical description of resource-consuming processes

The project's aim is to attain a stricter, scientific description of society's resource management and the exchange between society and the natural surroundings than exists today and to ascertain how these descriptions can be used in non-scientific fields.

Gunnar Fant, KTH**SEK 300.000**

Dnr 90/271

Contrastive studies of the reading of Swedish, English and French text

The project will describe language-specific patterns of emphasis and pronunciation in the reading of Swedish, English and French. This ensuing knowledge should benefit language teaching.

Ingolf Lindau, Lund**SEK 300.000**

Dnr 90/357

Development of new and innovative methods in the 500-300 eV (4-24 Å) spectral range for structural studies of biological and electronic materials

The present study will attempt to develop new methods for utilising the 4-24 Å spectral range. This should enhance the study and development of new materials and greater understanding of their properties.

Statistical information on research grants

The following tables provide an overview of the allocation of grants to different fields in 1990 (Table 1) and for the entire period in which the Foundation has been in business, i.e. from 1965 to 1990 (Table 4). If the grants awarded in the various years are expressed in terms of the value of money in 1990, the Foundation's research grants to date amount to more than SEK 2,000 million.

Information on the relationship between continuation grants and new grants in 1990 will be found in Table 2. Table 3 indicates their duration.

Many of the projects receiving grants, especially the larger projects, are multidisciplinary. An exact specification of the distribution among disciplines and university departments is therefore difficult. Grants are listed under the subject deemed to be the most central, usually the field represented by the coordinating scholar. The tables supply a generally accurate description of Foundation activities.

Grants listed under "social sciences" (see Table 1) comprised 48.0% of the total grants awarded in 1990, 30.6% of the grants went to medicine natural science and technology research and 21% to humanities-oriented research. The corresponding percentage for 1965-1990 (Table 4) is 54.7%, 22.7% and 21.0% respectively.

The percentile distribution among disciplines can vary considerably from one year to another. However, the differences should not be viewed as changes in the Foundation's grant allocation policies. Differences are usually due to the addition or conclusion of some major, multidisciplinary project, classified under a particular heading, during the year.

In 1990, 227 project grants of 659 processed applications (Table 1) were awarded in whole or part. The rejected applications were for grants totalling more than SEK 213 million. (The corresponding figure for rejected grants in 1989 was SEK 163 million.) Sixty-four of the approved grants were for new projects. (1989: 73 projects.) Only 8.7% of funds sought for new projects was approved (1989: 11.7%).

New grants accounted for 26.9% of the total amount approved during the year (Table 2).

As in previous years, competition for grants from the Bank of Sweden Tercentenary Foundation was severe. This is obviously related to the Foundation's inability to sustain its real grant-allocation capacity as a result of economic developments in Sweden and elsewhere. Inflation (measured as the average value for the 1990 consumer price index compared to 1989) was 10.4%. The increase in the Foundation's grants to research was 1.7%, a figure which actually represents an 8.7% decline.

Table 1. Applications for and grants awarded in 1990 (SEK 1000)

Field	Grants awarded		Applications		Grants awarded, % of		
	No.	Amount	No.	Amount	amount sought	no. sought	Per field
Social sciences	102	31.863	256	116.143	27.4	39.8	48.0
Economic history	9	3.613	20	9.715	37.2	45.0	5.4
Business administration	7	2.732	38	20.423	13.4	18.4	4.1
Economics	7	2.597	15	6.375	40.7	46.7	3.9
Cultural geography	4	1.594	10	4.546	35.1	40.0	2.4
Education	7	2.047	23	9.233	22.2	30.4	3.1
Psychology	22	6.711	46	18.465	36.3	47.8	10.1
Sociology	15	4.493	40	20.853	21.5	37.5	6.8
Anthropology	4	832	6	2.059	40.4	66.7	1.3
Statistics	2	300	7	6.027	5.0	28.6	0.5
Political science	22	6.447	42	16.006	40.3	52.4	9.7
Law	3	497	9	2.441	20.4	33.3	0.7
Humanities	53	14.006	151	52.564	26.6	35.1	21.1
Medicine	32	9.360	109	48.853	19.2	29.4	14.1
Natural sciences	26	7.332	106	47.480	15.4	24.5	11.1
Technology	12	3.568	31	12.759	28.0	38.7	5.4
Miscellaneous	2	194	6	1.448	13.4	33.3	0.3
Total project grants	227	66.323	659	279.247	23.8	34.4	100.0
Travel grants, salary increases and spec. committees		2.900					
TOTAL for research projects		69.223					

Table 2. Grants for project continuation/new grants in 1990 (SEK 1000)

Type of application	Grants awarded		Applications		Grants awarded, % of		
	No.	Amount	No.	Amount	amount sought	no. sought	Per field
Continuation grants	163	48.498	180	73.796	65.7	90.6	73.1
New grants	64	17.825	479	205.451	8.7	13.4	26.9
TOTAL	227	66.323	659	279.247	23.8	34.4	100.0

Table 3. The number of final and non-recurrent grants after extension in time and field in 1990

Duration (years)	Social science	Humanities	Medicine	Natural science	Technology	Miscellaneous	Total	%
-1	1	1	1	1	0	0	4	6.3
2-3	16	9	1	2	1	0	29	46.0
4-5	9	5	4	3	2	0	23	36.5
6-7	2	0	1	2	0	0	5	7.9
8-	0	1	0	1	0	0	2	3.3
TOTAL	28	16	7	9	3	0	63	100.0

Table 4. Grants from 1965-1990 (SEK 1.000)

Field	Applications granted		Amount awarded as a % per field
	Number	Amount	
Social sciences	2.270	467.215	54.7
Economic history	143	29.102	3.4
Business administration	144	24.743	2.9
Economics	252	58.143	6.8
Cultural geography	194	50.217	5.9
Education/Psychology	538	104.320	12.2
Sociology/Anthropology	401	75.812	8.9
Statistics	95	17.357	2.0
Political science	410	94.312	11.0
Law	93	13.209	1.6
Humanities	970	179.448	21.0
Medicine	433	98.040	11.5
Natural sciences	334	79.191	9.3
Technology	73	16.656	1.9
Miscellaneous	91	13.831	1.6
TOTAL	4.171	854.381	100.0

Foundation Publications

As a rule, research overviews and documentation from symposia, conferences etc. held by the Bank of Sweden Tercentenary Foundation are published in the Foundation's own publication series. The committees active over the years have generally been the most productive contributors to this series.

The titles (given here in English translation, although the material is not available in an English version unless otherwise stated) listed below do not supply much information on the publications' contents. But Foundation staff will be pleased to supply additional details, including the addresses from which material can be ordered.

The following titles have appeared to date in our publication series:

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|-----------|--|
| RJ 1977:1 | Working life, economics and the evolution of welfare |
| RJ 1977:2 | Listen, look, read |
| RJ 1977:3 | Hello! Hello! |
| RJ 1978:1 | Where do all strings lead? |
| RJ 1978:2 | Threat or promise? |
| RJ 1978:3 | Dialogue |
| RJ 1978:4 | Two-cable TV and telephone conferencing |
| RJ 1978:5 | At the press of a button |
| RJ 1978:6 | Attitudes towards technology |
| RJ 1978:7 | Pain and acupuncture |
| RJ 1979:1 | Waiting in the wings |
| RJ 1979:2 | Planning |
| RJ 1979:3 | Research on gender equality |
| RJ 1979:4 | Modern times |
| RJ 1980:1 | The value and meaning of work |
| RJ 1980:2 | Current research on women |
| RJ 1980:3 | Research on working life |
| RJ 1980:4 | Equality perspectives in research |
| RJ 1980:5 | Communications – despite disability |
| RJ 1980:6 | Research on taxation |
| RJ 1981:1 | Swedish research on taxation from 1919-1979 |
| RJ 1981:2 | The lives of women in Swedish society |
| RJ 1982:1 | The risk of becoming an alcoholic |
| RJ 1982:2 | Contrary to accepted standards |
| RJ 1982:3 | Changing ways of life |
| RJ 1983:1 | Women and Men in Swedish Society (in English) |
| RJ 1983:2 | How are we going to cope with 1990? |
| RJ 1984:1 | Alcohol policies and research |
| RJ 1984:2 | Eastern bloc research in Sweden from 1950-1983 |
| RJ 1985:1 | Research on taxes |
| RJ 1986:1 | Taxes – a problem for society? |
| RJ 1986:2 | Finance theory investigations |
| RJ 1987:1 | Technology and employment in future |
| RJ 1987:2 | Social science and humanities research on sports |
| RJ 1988:1 | Research in aesthetic subjects |
| RJ 1989:1 | The Swedish Riksdag in an International Perspective (in English) |

Other publications have been:

"Riksdagen genom tiderna". H. Schüek, G. Rystad, M.F. Metcalf, S. Carlsson & N. Stjernquist (1985)

"The Riksdag: A History of the Swedish Parliament". H. Schüek, G. Rystad, M.F. Metcalf, S. Carlsson & N. Stjernquist (1987)

"Forskning i ett föränderligt samhälle, Stiftelsen Riksbankens Jubileumsfond 1965-1990". Utg. K. Hämqvist & N.-E. Svensson, Gidlunds Bokförlag (1990)

"Swedish research in a Changing Society, the Bank of Sweden Tercentenary Foundation 1965-1990. Edited by Kjell Hämqvist and Nils-Eric Svensson, Gidlunds Bokförlag (1990)

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