

Report of the Committee

to

Review the Operation

of the

Isaac Newton Trust

SUBMITTED TO
THE COUNCIL OF TRINITY COLLEGE
APRIL 1995

Membership of the Committee

Sir Rex Richards (*Chairman*)

Professor Roger C Paulin

Lord Runciman

Mrs Joanna M Womack

Dr M Grae Worster (*Secretary*)

Terms of Reference

To review the management, operation and resources of the Trust and to assess the benefits derived by the University and Colleges from the various schemes financed by the Trust.

CONTENTS

1. PROCEDURE.....	4
2. BACKGROUND.....	4
3. STRATEGY.....	4
4. OVERALL VIEW OF THE TRUST.....	5
4.1 FINANCE.....	5
4.2 OPINION IN THE UNIVERSITY AND COLLEGES.....	6
4.3 QUALITY OF THE PROJECTS SUPPORTED	6
4.4 ADMINISTRATION	6
4.5 THE TRUST FROM THE POINT OF VIEW OF THE COLLEGE	6
5. THE MAJOR INITIATIVES OF THE TRUST	7
5.1 THE ADDITIONAL APPOINTMENTS SCHEME	7
5.2 NON-UNIVERSITY TEACHING OFFICERS (NUTO) SCHEME	8
5.3 NEWTON BURSARIES FOR UNDER-GRADUATES.....	9
5.4 NEWTON AWARDS FOR RESEARCH STUDENTS	9
5.5 GRANTS FOR RESEARCH AND EDUCATION	10
6. OPERATION OF THE TRUST.....	10
6.1 THE TRUSTEES.....	10
6.2 RESOURCES OF THE TRUST.....	12
6.2.1 <i>The Treasurer</i>	13
6.3 MANAGEMENT OF THE TRUST.....	13
6.3.1 <i>Packer House</i>	14
6.3.2 <i>The Trinity Street Office</i>	15
6.3.3 <i>Administrative Costs</i>	15
7. CONCLUSIONS	16
7.1 GENERAL.....	16
7.2 RECOMMENDATIONS	16
7.2.1 <i>Recommendations to the Council of the College</i>	16
7.2.2 <i>Recommendations to the Trustees</i>	17
8. APPENDIX - A SELECTION OF GRANTS MADE BY THE TRUST	19
8.1 HUMANITIES	19
8.2 SOCIAL STUDIES	19
8.3 PHYSICAL SCIENCES.....	20
8.4 BIOLOGICAL SCIENCES	22

1. Procedure

The Committee has met on eight occasions and we have had the benefit of discussions with The Master, Sir Robin Ibbs (*Vice-Chairman of the Trust*), Professor M Berridge, Professor A Broers, Dr J Bradfield, Professor J F Davidson, Dr S G Fleet, Professor G Jones, Dr D A Livesey, and Dr J Rallison.

Members of the Committee have also had several discussions with the Director, Dr Anil Seal, and have visited the offices at 38 Trinity Street and at Packer House.

The Chairman wrote personally to all Heads, Senior Tutors and Bursars of Colleges, to Chairmen of Faculty Boards and to Heads of the Departments of the University, as well as to the Fellows of Trinity, inviting them to write to the Committee with any comments they may have had on the operation of the Trust. We received 100 replies to these letters and are grateful to the correspondents who took the trouble to let us have their views.

Our report starts with a brief outline of the background to the formation of the Trust and a statement of the strategy of the Trustees following closely (but not exactly) the wording of the first report of the Trustees to the Council of Trinity College.

We then give a general account of the view we have formed of the activities of the Trust followed by a consideration in more detail of each of the major initiatives of the Trustees. In these sections, we have tried to summarise as briefly as possible the main features of the schemes, and have made comments on them which may be of assistance to the Trustees. The reader seeking more details can find them in the very full reports made by the Trustees to the Council of Trinity College, for which there is an excellent cumulative index.

The operation of the Trust and its management and administration are discussed in greater detail below (section 6). The report concludes with the recommendations of this committee for the College and for the Trustees.

2. Background

The Isaac Newton Trust was set up in 1988 by Trinity College, with a promise of £10 millions (£4 millions on the establishment of the Trust and £1 million annually from 1989/90 to 1994/95 inclusive). The Council has recently given a further £1.25M to the Trust bringing the total benefaction to £11.25M.

The object of the Trust is to promote and assist education, learning and research in (or ancillary or complementary to) the University of Cambridge.

The inaugural meeting of the Trustees of the Isaac Newton Trust was held on 22 November 1988, with His Royal Highness The Prince of Wales in the Chair. Since then, the Trustees have met on twenty occasions, with Sir Robin Ibbs in the Chair, and one, informally, with The Prince of Wales in the Chair.

3. Strategy

We understand that the Trustees have made no distinction between their capital and income; these are merged in a single fund from which grants are made.

The Trustees have explained that they realised that the resources at their disposal could soon be wholly absorbed in a few big projects. They believe they can best assist the University by using their funds selectively on projects of various sizes which otherwise might not get started or be significantly delayed, particularly those where a grant from the Trustees can open up opportunities for additional funds from outside Cambridge. The Trust is able to move quickly and so enable opportunities to be seized which otherwise might permanently be lost. In all cases the Trustees need to be satisfied that projects are of a high standard. They aim to assist with the funds at their disposal a wide range of projects, covering many departments across the humanities and the sciences.

The Trustees normally provide support as seed-corn and, as a general rule, contribute

one third of the costs of initiatives, encouraging sources outside Cambridge to provide the remaining two thirds. Exceptions to this rule are the schemes of Additional Appointments, and the Newton Awards for UK Research Students, where the Trustees have agreed to share costs equally with outside collaborators. Other exceptions are the Newton Bursaries and the scheme to enable College Teaching Fellows who do not have a University post to become affiliated lecturers in the Faculties, both of which are at present mainly funded by the Isaac Newton Trust.

The Trustees believe that their most effective contribution is to help attract talented persons to Cambridge and to provide improved facilities for teaching and research rather than to add to the stock of bricks and mortar. However two exceptional cases of bricks and mortar have received support from the Trust. The first is the extension of the University Library, where a grant of £500,000 has unlocked about £2.5M from the Universities Funding Council and enabled the University Library to expand its accommodation for books by more than one million volumes earlier than would otherwise have been the case; the second is a secured loan made to Wolfson College to assist it to increase its stock of graduate accommodation by acquiring a lease of 13/14 Fitzwilliam Street, thereby helping to bridge the gap between the number of University offers of admission to graduates and the College places available for them.

The Trustees do not give priority to grants for equipment. However, they do consider applications for grants for equipment, exceptionally at any meeting but normally once a year, giving priority to requests for equipment for teaching or equipment which has multiple use. Such grants are normally for no more than one third of the total cost.

The Trustees, mindful of the activities of the Cambridge Foundation, have agreed that they will not seek funds in their own right from outside sources, the only exception being efforts to gain support for the scheme of Newton Bursaries for UK Undergraduates. This policy was agreed at the outset between

representatives of the Trustees and the Foundation.

4. Overall View of the Trust

4.1 Finance

By the end of October 1994, the Trust had offered 223 grants for a total sum of £13,629,187, conditional on sums to be raised from sources outside Cambridge (described by the Trustees in their reports as the "leverage") amounting to a further £26,708,757. Of course not all the applicants had by then been able to raise the necessary support from other sources, but it is a measure of the success of the Trust that the conditions had been met by 185 of these applicants, to whom the Trust had approved grants totalling £12,195,527; of this figure, a part has already been paid, but a considerable fraction is a commitment which will have to be paid in future years. The leverage associated with these approved grants amounts to £24,220,002. This is, in our opinion, a very remarkable record, and describes in financial terms a significant contribution to the work of the University.

It turned out that in many cases applicants were able to obtain from other sources grants considerably greater than the two thirds required by the Trust, amounting in total for the 185 grants to a further £15,724,386 (described in the reports of the Trustees as "associated finance") over and above the requirements of the Trust. The Trustees very reasonably say that some of this associated finance, and indeed some of the leverage, might well have come to Cambridge in any case, but this is impossible to quantify. It seems most unlikely that anything approaching these total sums would have come to Cambridge without the offer of grants from the Trust, and it seems probable that many of the projects successfully supported would not have got off the ground without the help of the Trust. In purely financial terms, therefore, there can be no doubt that the Trust has made a most significant contribution to the

academic work of the University and of the Colleges.

4.2 Opinion in the University and Colleges

In all the 100 letters we have received from our correspondents there was not one containing a serious criticism of the initiatives of the Trustees, of the way in which the Trust has operated, or of its administration; indeed many of the correspondents wrote particularly warmly of the speed and flexibility with which the Trust responded to their proposals.

Some of our correspondents made constructive comments, and some of these are taken up in the paragraphs which follow. Others drew attention to difficult problems in some areas affected by the initiatives of the Trustees, but not of the Trustees' making, and we describe them below.

4.3 Quality of the Projects Supported

We have neither the time nor the competence to make a serious assessment of the quality of the work supported by the enormous range of grants made by the Trust. We have, however, studied the final reports of a selection of the early grants which have now been completed, and have been impressed by what we have seen. We have every reason to believe that the work supported by the Trust is of the very high quality we would expect from this University. The reader can get an idea of the range of work supported from the selection attached in the Appendix, or from the more detailed descriptions given in the reports to the Council.

4.4 Administration

The management of the Trust's affairs has been devised by the Director and has grown with the activity of the Trust. It produces a service to the Trustees of high quality, and many beneficiaries of the Trust have written very favourably about the support and encouragement given by the Director and

about the great virtues of the informal system which involves a minimum of red tape. We make various comments about the details of the administration in paragraphs 6 below.

4.5 The Trust from the point of view of the College

The Fellows can be reassured that in setting up the Isaac Newton Trust and providing it with a generous benefaction, they have amply fulfilled their aim to "promote and assist education, learning and research in (or ancillary or complementary to) the University of Cambridge."

Some might well enquire whether equally good work could not have been done by the College itself, responding to initiatives within the University. Plainly the College can, and does, contribute directly to academic projects in the University, but we very much doubt whether it would have been possible for the College, with its very large fellowship and its rules about donations, to respond with speed and flexibility to the many proposals which have been supported by the Trust. Where the aims and policy are clear, there is great advantage in entrusting a small body of Trustees with the task of implementing the policy in an imaginative manner. We can also see that it avoids the embarrassment felt by Fellows from time to time when they are lobbied by potential beneficiaries.

Your committee has been very impressed by the work of the Trust and we very much hope that the College will be able to see its way to provide it with a further injection of funds whether by way of further annual payments or by a capital endowment; there is still much work to be done, and the Newton Trust is an excellent vehicle for it. We are of the opinion that over the next quinquennium the Trust could make very good use of income up to a figure twice as great as the original benefaction.

5. The Major Initiatives of the Trust

5.1 The Additional Appointments Scheme

This was the first major initiative of the Trustees at a time when universities were, as indeed they still are, finding it difficult to offer new appointments and to attract young academics into teaching and research.

Applications are accepted from faculty boards and heads of departments, and successful candidates are appointed for a maximum of five years; the Trust providing up to £10,000 per annum on condition that the sponsoring department can find matching funds from sources outside Cambridge.

The Trustees started the scheme with an offer of 50 appointments, and it has been so successful and received with such enthusiasm that by November 1994 136 appointments had been offered (75 in the sciences and 61 in the humanities), and of these 97 have been confirmed with matching funds assured. Further details of the distribution of appointments among the subjects can be found in Appendix 2 of Report V of the Trust to the Council. The 136 appointments offered are of varying tenure and amount to a total commitment of £4,782,803. The 97 grants confirmed by 1st November 1994 represent commitments of £3,766,303.

The great majority of the Additional Appointments have been made for projects which are primarily concerned with research, and so far as we can discover, most of those appointed have no college connection. About 10% of the appointments involved some formal commitment to teaching, and some of them were joint appointments with colleges.

There can be no doubt of the very great success of this scheme. It has helped to secure for Cambridge about 100 additional appointments for researchers at a critical stage of their academic career. On the one hand, the holders of these appointments must have made a material contribution to research and advanced study in Cambridge; on the other,

they have been given an opportunity to make a reputation which will help them in a subsequent academic career.

There is, however, some disquiet about a scheme which has added about 100 researchers on short term appointments to some 1100 already in the University. There are three major concerns:

- there is bound to be some doubt about whether so many temporary researchers will be able to find relatively secure academic appointments when their term at Cambridge comes to an end;
- there is the risk of building up a large population of temporary appointments in the University which have no college connection, and which might form the converse of the well recognised "NUTO problem";
- these additional appointments impose a burden of overheads on the University.

On the first concern, much will depend on the help and advice from the Head of Department or the Head of the College concerned. He or she will no doubt warn the candidate of the risks involved before the award is accepted, and will be an important guide and help as the period of tenure of the award approaches its end. This is a problem which young academics have always had to face, though perhaps not in so severe a form as in recent years.

On the second concern, the Trustees might wish to consider the possibility of encouraging Heads of Departments to try to secure some college connection for Newton Appointments; if this is at all possible, the Trustees might even consider making a small grant to a college if it was willing to match it in kind. This would give young academics an opportunity to benefit from and to contribute to the intellectual and social life of a college. We appreciate, however, that there is a limit to how far colleges can help in this way simply because of limitations of space.

There can be no doubt that 100 additional appointments must add a burden to the overheads of the University and its departments. On the other hand they can be expected to add significantly to the research output of the University, and thereby help to maintain or increase the score of their department in the Research Assessment Exercise; although temporary appointments do not add much to the income of the University, improvements in the research assessments do. We do, however, think the Trustees might consider extending their very occasional practice of giving some help to the University by providing as part of their grants, when a good case can be made by the applicant, some modest contribution to running or equipment costs directly incurred by the research.

5.2 Non-University Teaching Officers (NUTO) Scheme

NUTOs receive their stipends from colleges and their primary responsibility is concerned with teaching undergraduates. Many would welcome the opportunity to have a closer association with their Faculty and to contribute on a regular basis to University teaching. The aim of the Newton Trust NUTO Scheme is to provide a simple mechanism to increase the involvement of some NUTOs in faculty teaching, to allow faculties to choose some extra teachers from NUTO ranks as they wish, and to make it possible for the tuition accounts of the less well endowed colleges to afford the consequent loss of NUTO teaching.

The scheme provides for a faculty, with the consent of the appropriate college, to appoint an existing NUTO of its choice as an Affiliated Lecturer for a period of up to five years. The duties are to give 24 hours of teaching per annum for the University, to examine from time to time, and to supervise research students. Meanwhile the college undertakes to reduce the college teaching required of the NUTO by three supervisions per week.

The Newton Trust pays at present £5,748 per annum per NUTO from a less well endowed college, and £2,748 per NUTO from a wealthier college. These figures are calculated as follows: the faculty pays the NUTO the standard cost of the additional teaching and is reimbursed each year by the Trust; the annual grant from the Trust to the college of which the NUTO is a fellow includes the standard cost of replacement supervisions plus a further sum to enable the college to augment the stipend of the NUTO by £500 per annum. In the case of the twelve less well endowed colleges, the Trust pays an additional £3,000 per annum in recognition of the fact that the NUTO teaching lost has cost the College more than the supervision rate implies. By November 1994, the Trustees had committed £700,000 to this scheme.

Thus the University gains additional posts at no additional cost; the colleges gain more involvement of NUTOs in faculty business and partial compensation for loss of teaching; and above all the NUTOs gain further involvement in faculty affairs and a modest increase in stipend.

After some initial difficulties, the scheme is now generally felt to be working well; 30 NUTO Scheme appointments had been offered by 1st October 1994, and 23 had been appointed. In the comments we have received, many have welcomed the scheme as a very helpful alleviation of what is widely recognised to be a difficult problem.

Nevertheless some of our correspondents emphasised what they saw as the severity of the "NUTO Problem"; it was suggested by two faculties in correspondence that the appointment of NUTOs to Newton awards succeeded in giving satisfaction to a few at the cost of giving offence to many. The question has also been raised of the future of Newton NUTOs at the end of the period of their college appointment, or when their Newton appointment ends.

The view was also put to us that faculty boards have not always nominated sufficiently qualified candidates for NUTO Awards because of the embarrassment of making choices among their colleagues; this is

admittedly a difficult matter for faculty boards, but we think the Newton Trustees might consider asking faculty board chairmen to certify that all their nominations are for those whose academic standing is appropriate for a University appointment.

These are clearly difficulties inherent in the very existence of a large population of NUTOs having no formal connection with a faculty; the Newton NUTO Scheme is nevertheless now very widely welcomed in the University and in the colleges as a modest amelioration of a problem which has hitherto proved intractable for the University.

5.3 Newton Bursaries for Undergraduates

The purpose of this scheme is to help undergraduates from disadvantaged backgrounds and from families with limited resources, who would otherwise have to use loans from the Government to support them during their studies, by awarding Bursaries of £300 per annum for three years. With effect from the academic year 1994-95 the Trustees have agreed to increase the maximum value of the Bursaries for the most needy undergraduates from £300 per annum to £500 per annum in respect only of students in the less well endowed colleges, and to encourage the twelve better endowed colleges to increase the value of the Newton Bursaries to some of the most needy of their own students to the new maximum of £500, paying for this increase from their own resources. So far, the Trustees have set aside £1,925,000 for this scheme, including the original pilot scheme.

Bursaries are limited to those whose circumstances are such that they receive the maximum local authority grant; bursary holders receive their grant for each year in mid year, and renewal for the second and third years is conditional on the undergraduate getting at least second class honours in the Tripos examination.

The scheme started with offers of 300 Bursaries a year, each for a period of three

years. Furthermore, the virtues of the scheme have attracted additional funds to form joint schemes in which costs are shared with Clifford Chance (70 bursaries for students reading law), the Hinduja Cambridge Trust (60 bursaries for students from ethnic minorities and disadvantaged backgrounds), and the Mitsubishi Corporation Limited (12 bursaries for students from disadvantaged backgrounds); Gonville and Caius College and Trinity College have generously agreed to fund the total cost of their own Newton Bursars. One of our correspondents, who was particularly enthusiastic about this scheme, felt that if more resources were available, there would be a case for considering an increase in the number of bursaries awarded rather than increasing the values of the awards.

The Newton Bursaries now cost the Trustees about £250,000 per annum and they have set aside funds to extend the scheme to 31st January 1999. We feel sure that the Trustees are well aware that this is the type of scheme which, once set up, might well cause great disappointment if it could no longer be continued.

5.4 Newton Awards for Research Students

These awards are intended to encourage a greater number of students from the United Kingdom with outstanding academic records and research potential to stay in academic life and to study for the degree of PhD at Cambridge, by supplementing the maintenance allowances available under the usual British studentships. They are tenable only by those students who concurrently have been awarded British Academy, EPSRC, ESRC or other comparable studentship which pays standard maintenance allowances and fees.

There are two levels of award:

- Shared Cost Awards for Research Students have the value £1,500 per annum for three years, the cost to be shared between the Trust and sources

internal to Cambridge on the one hand, and by outside sponsors on the other.

- General Awards for Research Students have the value of £750 per annum for three years and are not dependent on matching funds. They are provided for students in departments and faculties where the prospects of sponsorship are remote, but where the academic arguments for encouraging research are strong.

The choice of award holders is made by faculties on merit, and for the Shared Cost Awards the faculties are responsible for raising the matching sums.

There are two suggested ways to develop these awards; one is to make as many as possible, the other is to make fewer and more valuable ones which could be seen as scholarships for exceptionally able students. There is of course a limit to the amount which can be received by a student without loss of grant.

The scheme was established only in 1993 and it is too early as yet to attempt to assess its success. By October 1994, 50 Shared Awards had been offered to Science Faculties, and 15 Shared Awards and 15 General Awards to Faculties in the Humanities. The Trustees have set aside £900,000 for this scheme up to 31st January 1999.

5.5 Grants for Research and Education

The Trustees make grants to support projects of high quality by contributing one third of the total cost of initiatives, encouraging grantees to raise the remaining two thirds from sources outside Cambridge. Their grants have been very much concerned with the support of people rather than equipment or buildings, though grants for equipment are approved when a very good case can be made.

Applicants submit proposals in summary form and are expected to invite independent referees to write to the Director on their behalf. We understand that these referees are

often very eminent persons, and the Trustees feel satisfied that they give a fair assessment of the proposals before them. For very large grants, the Director also writes to independent referees of his own choice; we think this is a very good idea and that consideration should be given to adopting this policy for all but small grants. It would involve a considerable amount of extra work for the Director but, if means could be found to accomplish it, we feel sure that it would give added confidence to the judgements of the Trustees. In appropriate cases the Trustees themselves might wish to suggest the names of additional referees.

Grants have been made to a great variety of departments of the University and associated institutions. Summaries of each of these grants are given in the five reports to the Council of Trinity College; a selection of them is given in the Appendix from which the reader will get some idea of the range of topics supported by the Trust.

It has been put to us that there are some subjects where there are great difficulties in finding the two thirds matching funds required by the Trustees, and that these subject areas are effectively cut off from assistance from the Trust. We think that if true, this is a great pity. The outside pressure is at present in favour of the support of research which might have direct benefit of some kind, and the policy of the Trustees to require two thirds matching funds reinforces this. Perhaps if the Trust is given further funds, it might be possible to place less stringent conditions on grants offered in selected subjects or where the Trustees judge that the work is such that although academically important, it is very unlikely to attract outside support.

6. Operation of the Trust

6.1 The Trustees

Initially, the Trustees were His Royal Highness The Prince of Wales (*Chairman*), Sir Robin Ibbes (*Deputy Chairman*), Sir

Andrew Huxley (*ex-officio* as *Master of Trinity*), Professor G H Jones (*ex-officio* as *Vice-Master of Trinity*), Dr J R G Bradfield, Professor A N Broers, Dr S G Fleet, and Dr A Seal. Dr Bradfield was appointed as Honorary Treasurer of the Trust, and Dr Seal as its Honorary Director.

The only changes in the Trustees since 1988 have been among the *ex officio* Trustees and Dr Seal, who resigned as a Trustee when it became clear that his work as Director was becoming too onerous. Professor M J Berridge was appointed as a Trustee from 1st November 1990 in replacement of Dr Seal. The Trust Deed provides for Trustees to be able to serve for considerable periods. This is very wise for the initial stages of a new institution, but in the longer term there is much to be said for a slow but steady change in the composition of Trustees so that fresh minds are brought to bear on the business and there is a gradual accumulation of Fellows with an intimate knowledge of the Trust and sympathy for it. If the life of the Trust is prolonged, as we very much hope it will be, we suggest that the Council might consider planning for a regular change in the composition of the Trustees. The Trust Deed provides for appointments of three years with possibility of reappointment provided that at the time of reappointment the Trustee has not served for nine consecutive years. We think three years is too short a period for any one Trustee to make a real contribution to the Trust, but think that six years is about right in most cases. Among the Trustees who are neither Chairman or Vice-Chairman nor *ex officio* Trustees, Professor Berridge has been appointed to 1997, Dr Bradfield to 1997, Professor Broers to 1996, and Dr Fleet to 1995. We note that the body of Trustees is at present at its minimum number (8), and that it would be perfectly possible to add an additional Trustee if that would facilitate a change in composition.

We do not think these considerations apply in the same way to the Director where there is obvious advantage in experience and continuity. But even here, although it is not easy to contemplate a change when there is such an efficient and effective Director who has contributed so much to the Trust, we think

it would be wise to plan for a change after some years. We do not want to suggest for a moment that the Director would wish to give up his work for the Trust in the near future, but he may wish to do so in the next five or ten years, and it might indeed be desirable for the Trust to have a change by then. We mention it here because the Trustees would require ample notice of a change of Director as there would need to be a good deal of planning for reasons set out below.

The Trustees meet three times a year, normally under the Chairmanship of Sir Robin Ibbs, to consider proposals which have been received by the Director since the last meeting. Urgent matters are occasionally, and at the discretion of the Director, dealt with by correspondence. Requests for contributions to the cost of equipment are considered only once a year, at the November meeting.

The Trust has not advertised its activities but has relied on word of mouth within Cambridge to bring it to the attention of potential beneficiaries. There was some concern at the outset that the Trustees could be overwhelmed by a very large number of applications, and it was felt to be preferable to allow applications to build up gradually as news of the policies of the Trust spread around the University. A glance at the range of the subjects of grants made for research shows that the Trust must by now be very widely known in Cambridge, but in spite of this we were surprised at the number of our correspondents who said they knew nothing of the Trust or who had heard of it but knew little of its activities. The Trustees might feel that there is now very little risk attached to giving more publicity to the Trust within the University. It seems to us that regular circulation of the leaflet about the Trust, perhaps once a year, to colleges and to chairmen of faculty boards and heads of departments would ensure that no one need plead ignorance of the Trust in the future, or feel in any way that applications to the Trust are limited to particular sections of the University.

The Trustees have made regular reports to the Council of Trinity College. These are very full and contain details of grants made, of

commitments year by year and of estimated income. They are a mine of information for anyone prepared to take the trouble to extract it; they also contain a brief summary of the activities on a few pages at the beginning. They are, however, at first sight, somewhat intimidating to a Fellow with only a general interest in the Trust and there is no doubt that the wealth of detail in them does demand lengthy study. We think, therefore, that the Trustees might consider the possibility of publishing to the Fellowship as a whole, on a regular basis, a short report of not more than a few pages, summarising the activities of the Trust, together with an indication of how the funds of the Trust have been disposed among the various schemes, and including a table showing commitments as described in section 6.2. The Trustees might even consider whether such a summary report could also be given to members of the University who ask for it.

6.2 Resources of the Trust

The resources of the Trust derive from an initial grant of £4M in 1989 from the College followed by six further contributions of £1M in each year and a recent additional sum of £1.25M in February 1995. The expenditure naturally built up slowly in the early years and the accumulated balances were invested skilfully so that the Trustees have been able to commit funds totalling considerably more than the original grant.

By the end of January 1994 (see Table 1) the Trust had spent £4.91M on grants and administration and the resources available to the Trust were still £10.98M. Against this figure, the Trust had by 1st November 1994 made commitments of £9.09M which fall for payment at various dates up to January 1999.

These are the maximum commitments entered into, because it is likely that some of them will not be called upon if the applicants find themselves unable to raise the required matching funds.

By mid March 1995 (see Table 2) the position was that the Trust had spent £6.69M on

grants and administration and the resources available to the Trustees were £8.95M. Against this figure, the Trust had made commitments of £8.79M.

A more detailed view of the financial position of the Trust is well summarised by a table which appears in the Reports of the Trustees to the Council. The table for the period up to 1st November 1994 is reproduced as Table 1. The columns for the periods 31/1/90 to 31/1/94 are actual figures; the later columns show estimated income and maximum commitments from grants approved up to 1st November 1994.

The total income derives mainly from the payments by the College, and in this table it is assumed that after January 1995 the only income of the Trust will be from interest paid on unspent balances (in fact the College paid to the Trust a further £1.25M in February 1995).

The cumulative balance in each year, in the bottom row, shows the funds available or expected to be available to the Trust in each year. It must be remembered, however, that there are commitments extending up to five years ahead to be set against these sums. The cumulative balance in the bottom row of the table on the extreme right hand side shows the estimated *uncommitted* balance at 31st January 2000. No commitments currently extend beyond that date.

The most recent assessment of the financial position in mid March 1995 is shown in Table 2.

In this table the "Expenditure" row is subdivided into rows for the Additional Appointments, Other Grants, Newton Bursaries for undergraduates, NUTO Scheme, and Newton Bursaries for UK Research Students, so that the reader can see the separate expenditure under each of these headings. The two tables illustrate how the financial situation changes with time.

The Trustees have now reached the stage where they are proceeding cautiously, making further commitments only as they see their way clear to do so. It will be appreciated that

Table 1

ISAAC NEWTON TRUST
STATEMENT OF INCOME AND EXPENDITURE ON THE BASIS OF AGREED FINANCIAL COMMITMENTS
Statement at 1 November 1994 of proposals agreed by the Trustees up to 1 November 1994

	Actual	Actual	Actual	Actual	Actual	Projected on assumption of 6% return	Projected on assumption of 6% return	Projected on assumption of 6% return	Projected on assumption of 6% return	Projected on assumption of 6% return	
	31.1.90	31.1.91	31.1.92	31.1.93	31.1.94	31.1.95	31.1.96	31.1.97	31.1.98	31.1.99	31.1.2000
TO:	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)	£(000s)
INCOME											
Trinity College	5,000	1,000	1,000	1,000	1,000	1,000					
External Donors	10	1	2	15	21						
Deposit Interest	606	869	515	455	39	694	590	485	414	366	332
Investment Income		3	319	421	624						
TOTAL INCOME	5,616	1,873	1,836	1,891	1,684	1,694	590	485	414	366	332
EXPENDITURE											
Awards, Grants etc	19	349	1,218	1,399	1,793	2,796	2,302	1,630	1,178	888	57
Administration	10	11	21	46	46	40	40	40	40	40	40
TOTAL EXPENDITURE	29	360	1,239	1,445	1,839	2,836	2,342	1,670	1,218	928	97
SURPLUS OF INCOME FOR THE YEAR											
INCREASE/DECREASE IN MARKET VALUE OF INVESTMENTS	5,587	1,513	597	446	(155)	(1,142)	(1,752)	(1,185)	(804)	(562)	235
CUMULATIVE BALANCE	17	54	(12)	592	2,341						
	5,604	7,173	7,758	8,796	10,982	9,840	8,088	6,904	6,100	5,538	5,773

Table 2

ISAAC NEWTON TRUST
STATEMENT OF INCOME AND EXPENDITURE ON THE BASIS OF AGREED FINANCIAL COMMITMENTS
 Statement at 14th March 1995 of proposals agreed by the Trustees up to and including 1 November 1994

	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Projected on assumption of 6% return		
TO:	31.1.90	31.1.91	31.1.92	31.1.93	31.1.94	31.1.95	31.1.96	31.1.97	31.1.98	31.1.99	31.1.00
INCOME											
Trinity College	5,000	1,000	1,000	1,000	1,000	1,000	1,250				
External Donors	10	1	2	15	21	19					
Deposit Interest	606	869	515	455	39	40	497	432	358	305	280
Investment Income		3	319	421	624	535					
TOTAL INCOME	5,616	1,873	1,836	1,891	1,684	1,594	1,747	432	358	305	280
EXPENDITURE											
Additional Appointments		200	776	799	772	698	1,018	782	536	332	279
Other Grants	19	75	301	425	759	684	831	343	201	145	122
Newton Bursaries		73	141	175	216	257	266	266	266	266	266
NUTO Scheme					47	76	192	192	192	223	223
Newton Awards for UK research students						9	223	223	223	223	223
Administration	10	11	21	46	46	48	45	45	45	45	45
TOTAL EXPENDITURE	29	360	1,239	1,445	1,839	1,773	2,575	1,851	1,464	1,011	447
SURPLUS OF INCOME FOR YEAR	5,587	1,514	597	446	(155)	(179)	(828)	(1,419)	(1,106)	(706)	(167)
INCREASE/DECREASE IN MARKET VALUE OF INVESTMENTS	17	54	(12)	592	2,341	(1,857)					
CUMULATIVE BALANCE	5,604	7,173	7,758	8,795	10,982	8,946	8,118	6,699	5,593	4,887	4,720

forecasting of income and expenditure is complicated by uncertainties in the market and by the fact that an unknown proportion of grants offered will succeed in meeting the criteria set down by the Trustees.

In making regular reports to the Fellows of the College, we think the information quoted above is probably sufficient, but if the Trustees feel they should present more detail it would be best done in the form of the audited accounts and the additional sheet provided in Report IV (Appendix 4, page 45) to the Council. The management accounts presented in the spread sheets in the reports to Council could then be made available only if more detailed information is requested.

6.2.1 The Treasurer

The Honorary Treasurer is responsible for all the financial transactions of the Trust, for financial forecasting, and, with the Finance Committee, for supervision of the investments of the Trust. He is assisted by the Chief Clerk in the College Bursary.

Applicants who have received offers of grants from the Trust seek matching funds from outside sources. When the applicant has received promises of the appropriate matching funds, he or she sends copies of the correspondence to the Treasurer (with a further copy to the Director). If the Treasurer is satisfied that the conditions set by the Trustees have been met, he authorises payment of the grant, and the Chief Clerk issues a cheque which is signed by the Treasurer. We were told by the Treasurer that it has always been the practice of the Trust for cheques to be issued on a single signature; this is, in our experience, rather unusual.

A brief annual report is normally submitted by grant holders and when the period of the grant comes to an end, a full and final report is provided with copies of publications. It has not been the custom to ask for detailed financial statements of the expenditure of grants because it is assumed that recipients will make good use of the funds available. We think the Treasurer might consider, in

appropriate cases, asking grant holders to submit a financial statement at the end of the grant showing how the funds of the Trust and the matching funds (the "leverage") have been spent. We quite see that it is desirable to minimise bureaucratic procedures, but this would ensure financial discipline and remind recipients of undertakings they have given. It would also enable the Trustees to confirm that matching funding has indeed been received; no such formal check is currently made.

The funds of the Trust have been invested appropriately by the Treasurer in consultation by telephone from time to time with the Vice-Chairman. It has not been thought necessary to call the Finance Committee for a formal meeting, though the Treasurer told us that a meeting of the Committee is planned for the near future. It seems to us that there is much to be said, if only for the protection of the Treasurer, for the Finance Committee to meet formally at least once a year.

In disposing the investments the Treasurer is, of course, constrained more than he would be in managing an endowment, by the need to plan for sufficient liquidity to meet all the obligations of the Trust as and when they arise; these constraints are bound to become more and more severe as the assets of the Trust are run down.

6.3 Management of the Trust

The administration of the Isaac Newton Trust has evolved in a pragmatic way since the College established the Trust in 1988.

As the work of the Trust got under way, the demand on the time of the Director and the amount of correspondence and general administration naturally increased rapidly; it soon became more than could reasonably be expected of an Honorary Director performing his duties in his spare time, and of a secretary employed for a different purpose.

It was therefore agreed in 1990 that Dr Seal should resign as a Trustee, and become the Director with a modest additional stipend from the Newton Trust. It was later agreed by

the College that his teaching obligation should be reduced to two hours per week. It was also agreed that the Trust should provide secretarial assistance for the Director specifically for the work of the Trust. In 1994 Dr John Rallison was appointed as Programmes Manager for the Trust with responsibility for the Newton Bursaries for Undergraduates, the Newton Awards for UK Research Students, and for the Newton NUTO Scheme, and is paid a modest additional stipend for this work. Meanwhile, Dr Bradfield remains as Honorary Treasurer, assisted by the Chief Clerk in the Bursary, who receives a small stipend for the additional work in which he is involved.

The management and administration has grown slowly with the activity of the Trust and has developed into an informal arrangement with the Cambridge Commonwealth Trust, which has worked well. This has not only been convenient for the Director, but it has also had the effect of providing the Newton Trust with remarkably low overheads. Among all the correspondence we have received about the operation of the Trust there have been many warm tributes to the help given by the Director and Programmes Manager and the speed, flexibility and lack of bureaucracy of the administration of the Trust.

The work of the Trust is at present carried out on three separate sites:

- a small office on the top floor of Packer House, at 5 Madingley Road, is used for most of the work of the Trust except the three programmes for which Dr Rallison is responsible;
- the offices in Trinity Street where some of the work of the Commonwealth Trust is done, and where the same staff provide the administrative services for the three schemes for which Dr Rallison is responsible;

- Trinity College, where the Treasurer controls the financial affairs of the Trust.

6.3.1 Packer House

The Newton Trust pays an annual fee to the Cambridge Commonwealth Trust for the use of the office in Packer House and the facilities provided. The work there is done by Mrs Bone who prints all the correspondence for the Director, deals with enquiries by phone, maintains the records and files for all the applications to the Trust and for grants made, maintains details of all the commitments entered into by the Trust in a spread-sheet format, and produces the papers for meetings of Trustees, minutes of meetings, and reports to the Council of Trinity College. For personal reasons, Mrs Bone, who is self employed, does some of this work at home using her own equipment, which includes desktop publishing software, to produce many documents including the reports for the Council.

Members of the Committee have made two visits to Packer House and have examined samples of the various files, of the papers submitted to the Trustees, and of final reports on work completed with the assistance of grants from the Trust. In our opinion, the office is well managed and the status of any application or grant could be very readily assessed. The minutes of meetings are full and clear, and as Fellows of the College will have seen from the reports presented to them, are presented in a most professional manner. When a grant has been completed, copies of any publications in reprint form are kept in the file for the grant; copies of books published after support from the Trust are presented to the Library of Trinity College. We think a separate catalogue should be kept of reprints, which are kept on file, and of books presented by the Trust to the Library, so that there is a proper record of all publications arising from the work supported by the Trust.

Mrs Bone also maintains a detailed record, in spreadsheet format, of all commitments entered into by the Trust and details of payments made when the conditions of an

offer of grant have been met, together with the Honorary Treasurer's forecasts of likely cash flow into the future.

When an applicant has met the conditions of the offer of a grant, he or she sends supporting evidence to the Treasurer, with a copy to the Director; if the Treasurer is satisfied, payment is authorised and reported to the Director, so that the records can be maintained. There is thus a clear separation of financial transactions from the general administration of the Trust. The accounts are audited annually by Price Waterhouse.

There is one weakness in the office system which makes it rather a chore to answer enquiries about how the grants made by the Trust have been dispersed among different departments, or among different subjects. The information is all there, but for this type of enquiry it is necessary to work through detailed tables with a calculator.

If the College decides to extend further the life of the Trust there is a very good case for entering essential details of every application and grant into an appropriately indexed database so that every type of enquiry about the activity of the Trust could be readily answered. A properly organised database could also make a considerable reduction in the administrative burden in the office by ensuring that no data, minute or report need be typed more than once and by automating at least some of the work of the office.

6.3.2 The Trinity Street Office

The office at 38, Trinity Street has been established for the purposes of the Cambridge Commonwealth Trust, and the systems already set up there are also being used to administer the three schemes for which Dr Rallison is responsible. These schemes involve a considerable amount of detailed work as they are dealing with many individuals separately, and they are administered with the aid of a database, following closely similar systems developed for the Commonwealth Trust.

We have formed the opinion that this is a very well organised office, coping smoothly with schemes which involve periods of very intense activity, particularly in the first term of the academic year. This is obviously a time of considerable pressure, and any significant increase in the work load might require additional help, at least temporarily.

6.3.3 Administrative Costs

The present cost of the administration of the Trust is between 2% and 3% of the annual commitments of the Trust; this is a figure which is remarkably low by comparison with other similar organisations. The administrative costs of other Trusts, most of which have a greater turnover than the Newton Trust, are Wellcome 6%, Leverhulme 6.5%, Rowntree 10.1%, Nuffield 10.3% and Prince of Wales 10.8%. But it must be remembered that these figures include the full costs of accommodation and related overheads as well as the cost of full time employees.

The reasons for the low figure for the Newton Trust are, no doubt, partly because the College is fortunate to have Fellows, already receiving a College stipend, as part time senior officers of the Trust, and partly because the Trust is able to make use of the facilities of the Cambridge Commonwealth Trust at very modest cost. Apart from Dr Seal and Dr Rallison, the only employees of the Trust are Mrs Bone and the Chief Clerk; the contributions made by the Trust to the Commonwealth Trust for the use of accommodation, and services provided at Trinity Street and in Packer House seem to us to be very moderate.

Two questions arise here. What would be the implication for the administration of a further extension of the activities of the Trust? What would be the short term effect on the Trust if the present Director were, for reasons unforeseen, unable to continue?

If the Trust continued at its present level, the existing informal structure could probably cope perfectly well, particularly with the help of further automation in the main office. If the

Trustees were able to embark on further initiatives, or if the scale of the grants for research was significantly increased, then additional assistance might be required.

We are sure that the second question is one which the Trustees hope not to have to face, but it is prudent to consider it. A new Director would need a short time to get a grip on the work, and would no doubt do it in a different style. The present Director has set up and run the administration of the Trust with commendable skill and efficiency, and it is now well established, so we do not think a change of Director would present an insuperable problem for the Trust.

Whatever changes need to be made to the administration, it is clearly important to try to avoid a transition to a system where the much admired speed and flexibility might be lost.

7. Conclusions

7.1 General

- There can be no doubt that the Trust has made a most significant contribution to the academic work of the University and of the colleges. Wise management of the funds of the Trust has enabled some £14M to be committed to a variety of academic activities including research and teaching, and it is likely that the Trustees will be able to make some further grants.[4.1]
- The policy of the Trustees of requiring matching funds to be provided from sources outside Cambridge has been very successful, and it seems unlikely that anything approaching the "leverage" funds (at present about £25M) would have come to Cambridge without the offer of grants from the Trust.[4.1]
- Wide canvassing of opinion in the University and in the colleges

shows that the Newton Trust has made a very notable contribution to academic work in the University. All the schemes of the Trust have been warmly welcomed, and the management of the Trust is praised for its speed, flexibility and general helpfulness. There must be few major initiatives in a great university which could, after five years operation, have earned such wide and enthusiastic support.[4.2]

- Although we have not felt competent to make a serious assessment of the quality of the work supported by the Trust, we have studied some of the reports of grants completed and have reason to believe that the work supported by the Trust is of the very high quality we would expect from this University.[4.3]
- We think the detached relation between the College and the Trust is the right one. We very much doubt whether it would have been possible for the College, with its very large fellowship and its rules about donations, to respond with speed and flexibility to the many proposals which have been supported by the Trust. Where the aims and policy are clear, there is great advantage in entrusting a small body of Trustees with the task of implementing the policy in an imaginative manner.[4.5]

7.2 Recommendations

7.2.1 Recommendations to the Council of the College

- The committee has been very impressed by the work of the Trust and very much hopes that the College will be able to see its way

to provide it with a further injection of funds. We are of the opinion that over the next quinquennium the Trust could make very good use of income up to a figure twice as great as the original benefaction. It would indeed be very sad if such an excellent and successful initiative of the College could not be continued for a further period. [4.5]

- We think Council should consider planning from now on for a regular change in the composition of the Trustees. The Trust Deed provides for appointments of three years with possibility of reappointment; we think three years is too short a period for any one Trustee to make a real contribution to the Trust, but think that six years is about right in most cases, though there are bound to be some circumstances, particularly in the case of the Chairman and Vice-Chairman, where longer service of a Trustee is appropriate. [6.1]

7.2.2 Recommendations to the Trustees

7.2.2.1 Additional Appointments

- We suggest that the Trustees should explore the possibility of securing some college connection for those Newton Additional Appointments who would like to take advantage of it. If the colleges are able to contemplate some arrangement, we suggest that the Trustees should be willing to make a small addition to the grants for payment to a college, if the college was willing to match it in kind. [5.1]
- We hope that the Trustees will consider extending their occasional practice of providing as part of grants for Additional Appointments, when a good case

can be made by the applicant, some contribution to running or equipment costs directly incurred by the research. [5.1]

7.2.2.2 Newton NUTO Fellowships

- We suggest that Trustees might consider asking faculty board chairmen to certify that all their nominations for Newton NUTO appointments are of academic standing appropriate for a University appointment. [5.2]

7.2.2.3 Grants for Research and Education

- We suggest that the Trustees should consider asking the Director, in the case of applications for grants for research, to invite comments from at least one independent referee of his choice except for applications for small sums. [5.5]
- We suggest that the policies of the Trustees should specifically include the support of scholarship and research of a truly fundamental character. Trustees should consider the possibility of placing less stringent conditions on grants offered in selected subjects or where the Trustees judge that the work is of such basic or fundamental character that it is very unlikely to attract outside support. [5.5]

7.2.2.4 Circulation of Information

- We think the Trustees should publish to the Fellowship as a whole, on a regular basis, a short report of not more than a few pages, summarising the activities of the Trust, together with an indication of how the funds of the Trust have been disposed among the various schemes. The Trustees might even consider whether such a summary report could also be given

to members of the University who ask for it.[6.1]

- We recommend regular circulation of the leaflet about the Trust, perhaps once a year, to colleges and to chairmen of faculty boards and heads of departments to ensure that no one need plead ignorance of the Trust in the future.[6.1]

from the work supported by the Trust.[6.3.1]

- We believe that the Trustees will need to bear in mind that when the present Director relinquishes his position, some reorganisation of the accommodation and support of the work of the Trust will be required, and this will need to be planned well in advance of any change.[6.1]

7.2.2.5 Administration

- We think that there is much to be said, if only for the protection of the Treasurer, for the Finance Committee to meet formally at least once a year.
- We think the Treasurer might consider, in appropriate cases, asking grant holders to submit a financial statement at the end of the grant showing how the funds of the Trust and the matching funds (the "leverage") have been spent.
- We suggest that essential details of every application and grant should be entered into a database and appropriately indexed so that every type of enquiry about the activity of the Trust can be readily answered. A properly organised database could also make a considerable reduction in the administrative burden in the office by ensuring that no data, minute or report need be typed more than once and by automating at least some of the work of the office. For example, the production of a brief summary of the activities of the Trust could then be made almost entirely automatic.[6.3.1]
- We recommend that a separate catalogue should be kept of reprints of publications kept on file and of books presented by the Trust to the Library, so that there is a proper record of all publications arising