INVESTMENT PERFORMANCE OF SUPERANNUATION FUNDS IN AUSTRALIA

John Graham and Martin A. Stevenson
(Australia)

1. INTRODUCTION

1.1 This paper is in two major parts. The first outlines, for the benefit of overseas members, the background to superannuation fund investment in Australia and indicates the position which has been reached in the measurement of superannuation fund investment performance. The second part looks to the future, and suggests some lines of investigation which might be followed. The main purpose of the second part is to stimulate discussion at the Conference; the paper itself offers no answers to the problems mentioned.

2. REVIEW OF THE AUSTRALIAN SCENE

The Australian Investment Market

2.1 In Australia, securities are traded on stock exchanges situated in each State capital city. There is no national stock exchange, although there is a co-ordinating organisation known as the Association of Australian Stock Exchanges.

2.2 Securities traded on the exchanges are in the following categories:

(a) fixed interest bonds issued by the Australian Commonwealth (i.e. federal) government,

(b) fixed interest securities issued by municipal governments (e.g. Brisbane City Council) and statutory authorities (e.g. Gas and Fuel Corporation of Victoria, State Electricity Commission of Queensland), most of which carry the guarantee of the Commonwealth government,

(c) secured debentures and unsecured notes (fixed interest) issued by corporations,

(d) ordinary and preference shares and fixed interest notes convertible into ordinary shares, issued by corporations.

2.3 Only a small proportion of securities in groups (b) and (c) above are "listed" by the stock exchanges and traded through the exchanges. The market in unlisted securities is very restricted, although most superannuation funds would hold securities of this type, having obtained them by subscription at the time of issue.

2.4 Investments such as mortgage loans and ownership of real property are, of course, available but are not traded on stock exchanges.

2.5 The range of published indexes of investment values and/or prices is limited. The stock exchanges of Melbourne and Sydney publish a wide range of ordinary share price indexes, separately for a number of categories of industries and also combinations of categories, but these indexes do not take dividends into account. The Institute of Actuaries of Australia and New Zealand, in conjunction with the Sydney Stock Exchange, has published since 1972 two ordinary share indexes known as the Statex-Actuaries indexes, one of these being a price index and the other an accumulation index including dividends. The value of these indexes as a standard for investment performance purposes is questionable because of their unusual selection criteria: the main criterion for inclusion is high turnover in the previous twelve months.

2.6 There are no published indexes of fixed interest investment prices or yields.

Superannuation Fund Investments

2.7 Most superannuation fund trust deeds allow the trustees to invest the assets of the fund in a wide range of investments, subject only to their legal obligation to invest prudently in the interests of the beneficiaries. However, the income tax requirements referred to in the next paragraph restrict considerably trustees' freedom of action in this regard.

2.8 Most superannution funds are approved for taxation purposes (approval granting freedom from income tax on investment income of the funds, allowing contributions by employers to be deductible for income tax purposes, and granting limited tax concessions in respect of employees' contributions) under Section 23F of the Income Tax Assessment Act. As a pre-requisite for tax approval, investment of at least 30% of the assets of such a fund must be made in the "public sector" (i.e. securities of the type indicated in (a) and (b) of paragraph 2.2). Two thirds of the 30% must be Commonwealth government securities.

2.9 Substantial superannuation fund investment in ordinary shares commenced in the late 1950's and most Australian funds have substantial proportions of their assets invested in this way. The proportions of funds invested in real property are also increasing.

Superannuation Fund Investment Management

2.10 About 20 years ago only the very largest superannuation funds were invested outside the life offices. Such funds were invested in separate portfolios by investment staff employed by the funds; there was little if any professional portfolio management before about 1958.

2.11 In the 1950's and early 1960's most superannuation funds were based on life insurance policies, mainly endowment insurances and pure endowments. Deferred annuities have never been popular in Australia, mainly for tax reasons. There were also a few large group life and group pension contracts through life offices.

2.12 About the mid 1960's the first unit-based pooled funds were introduced by life offices. These were based on separate statutory funds giving, through the unit system, full recognition of changes in capital values of the underlying investments.

2.13 The life office pooled funds required the trustees to determine the broad investment strategy by nominating the proportions of assets in broad groupings: ordinary shares, company fixed-interest securities, real property. The minimum 30% in the public sector was in all cases mandatory.

2.14 The pooled funds managed by one large trading bank and a number of merchant banks are almost all based on a single unit, so that the investment manager makes all investment decisions. The earliest such pooled fund commenced in 1958, and new ones start from time to time, the most recent being in February 1975. Two of the major life offices have now introduced a composite unit, corresponding to the single unit of other funds, and there are indications that others will follow suit.

2.15 Since about 1965 there have been increasing numbers of professional investment managers – trading banks, merchant banks and others – prepared to manage superannuation funds as individual portfolios. Apart from life offices, the number of organisations known to be investing superannuation funds in this way amounts to about 15.

2.16 There are no reliable published statistics on the proportions of superannuation fund assets invested by the various types of manager, or in pooled funds rather than separate portfolios.

Investment Performance Measurement in the Past

2.17 Interest in measuring investment performance in ways which will facilitate comparison between different funds has arisen comparatively recently. The first survey of performance of superannuation funds, based on quarterly time-weighted rates of return, was commenced by a firm of consulting actuaries – Campbell & Cook – in 1968 for ordinary shares only. Development of this survey was interrupted and recommenced in 1970. A similar survey was commenced by the Association of Superannuation Funds of Australia in 1973. Each of these surveys includes about 50 superannuation funds.

2.18 Measurement of total fund investment performance commenced about 1973 and two surveys are now in existence, one by Campbell & Cook and the other by Investment Measurement Services Pty. Ltd., a company jointly-owned by the two other Australian consulting actuarial firms Palmer Trahair Owen & Whittle (PTOW) and E.S. Knight & Co., The Campbell & Cook survey now includes more than 200 funds and the IMS survey more than 120. Data has been included in both surveys retrospectively so that some comparative statistics are now available from about 1970.

2.19 The Campbell & Cook survey reports quarterly, giving quarterly results and effective annual rates for various past periods for the individual fund reported on, and for all funds included in the survey. Supplements issued periodically give further details of performance based on criteria such as size of fund.

2.20 The IMS survey is issued half-yearly, giving rates of return for one year at a time, and for various numbers of past years, based on total fund and, where available, ordinary shares and public sector securities separately. Averages are shown according to size of fund and also individual averages for participating investment managers other than life offices.

2.21 None of the Australian surveys includes an interpretation service, but the consulting actuarial firms provide such services for separate fees as required.

The Current Position

2.22 The state of the art in Australia is summarised in the remainder of this section under a number of headings.

2.23 **Time weighted rate of return.** The three surveys calculate rate of return using the "time weighted" method, with funds valued quarterly.

2.24 **Size of Fund.** The three surveys differentiate Funds according to size. An example of the size classifications used by the surveys is:

Size Code	Market value of Fund $m
A	Up to 1.0
B	1.0 to 5.0
C	5.0 to 15.0
D	15.0 to 50.0
E	50.0 to 200.0
F	over 200.0

2.25 **Turnover.** No rigorous statistics on turnover are provided. From time to time Campbell and Cook prepare rankings for equity portfolios based on an activity index, which is the ratio of the total value of share sales throughout the year, divided by the average market value.

2.26 **Differentiation by manager.** The ASFA survey differentiates between self-managed funds and professionally managed funds; the IMS survey sets out the results of a dozen identified professional managers; in the Campbell and Cook survey there are three categories of results – life office managers, non life office professional managers and self invested funds.

2.27 **Risk.** As far as the authors are aware, the only Australian published material on an analysis of investment performance which attempts to take risk into account is a paper by an actuary, P.D. Praetz, on the measurement of performance of mutual funds in Australia over the period March 1967 to March 1971. These funds are of a very different nature to superannuation funds.

2.28 **Interpretation.** No authoritative investigations have been carried out as to whether any particular manager (or group of managers) has achieved significantly better results than other managers (or groups of managers).

2.29 **Acceptability.** Reactions to investment performance measurement surveys range from enthusiasm to hostility. The advocates of the surveys point out that they are the only objective test of a manager's ability. Organisations that are opposed to the surveys point to the many problems that still exist:

- inconsistent valuation of fixed interest securities and property;
- short period of measurement;
- lack of evidence that performance in the past is a good guide to performance in the future.

3. FUTURE DEVELOPMENTS

3.1 Analysis of investment performance so far has been almost entirely confined to the calculation of time-weighted rates of return, for all assets and for various individual sectors (i.e. ordinary shares and government securities). Except perhaps in individual cases, for which results have not been published, little has been done:

(a) to attempt to analyse total performance between "choice of sectors" and "choice of particular investments", or

(b) to allow for "risk" in the comparisons.

3.2 Analysis along the lines of (a) in the previous paragraph may be particularly relevant in Australia, as a large number of superannuation funds are invested in commingled funds where trustees (and not the manager) nominate investment proportions between sectors.

3.3 Much criticism of existing practical work has been directed at its neglect of "risk". One of the factors retarding development in this area is the difficulty of determining a "market rate of return" on which Treynor's index depends. As has been pointed out earlier in this paper, published investment indexes only relate to ordinary shares and virtually all superannuation funds have at least 30% of their assets in government securities. A surrogate for the market rate could, however be determined by ascertaining the average rate of return on all Australian pooled funds, which form a significant proportion of the superannuation fund market.

3.4 Little work seems to have been done to attempt to determine why apparently superior results have been obtained by some managers in some past periods. Some Australian investment managers have very few staff. To what extent does performance depend on key people? It would be interesting to study the managerial and decision-making styles of various managers to try to detect differences which are reflected in performance. Such an investigation might throw new light on attempts to forecast who will do best in future – if individuals are largely responsible for performance, predictions of the future will be thrown out of gear as individuals move between managers.

3.5 Intuitively, we expect that large funds will perform worse than small funds, simply on the basis of much less freedom of action and flexibility and despite the larger funds' alleged ability to obtain large investments on a favourable basis. Although it is apparent that small pooled funds have performed very well in their early years, no statistical evidence has yet been adduced either way. This is an area where data is available fairly readily but difficulties will be encountered in defining "small", "large" and the categories in between in a meaningful fashion when all funds are growing quickly in dollar terms.

3.6 Some of the small managers whose performance (as measured in the ways described earlier) has been good are now growing very fast, by acquisition of portfolios from other managers. It will be interesting to watch what happens to their performance as they progress upwards through the size categories.

3.7 The authors are unaware of any Australian investigations into correlation between relative performance in different periods, though the paper by Praetz referred to in para. 2.27 mentioned the subject in relation to mutual funds. Overseas studies are said to have indicated that the only conclusion which can be drawn with safety is that indifferent performance in one period is likely to be followed by indifferent performance in the next one. While this conclusion has intuitive appeal, so too would a conclusion that good performance is likely to be followed by good, and some practical work on this subject in Australian conditions would be welcome.

3.8 We find it interesting that, in Australia, the running in the evaluation of investment performance is being made largely by academics (in the theoretical aspects) and by consulting actuaries (in practical aspects). However, other actuaries are being given a grounding in the theoretical side during a postgraduate course in actuarial studies at Macquarie University, Sydney. The involvement of the investment community itself is slight.

3.9 It is natural to wonder whether this actuarial involvement is likely to lead into a wider involvement in investment itself. Consulting actuaries are increasingly often asked to make recommendations on the choice of an investment manager and, in Australia at the present time, they appear to be the only source of independent advice in this area. If actuaries do become more involved in the investment function, how will they obtain the necessary expertise? Very few actuaries in Australia, consulting or otherwise, have actual investment experience.