

# SAVING FOR RETIREMENT IN SOUTH AFRICA: CHARGES TO THE CONSUMER

By RD Rusconi

## ABSTRACT

Whether in occupational plans or private supplementary arrangements, workers pay for the opportunity to save for retirement through a variety of charges that erode the prosperity of their retirement years. This paper provides an analysis of the administrative charges paid by South Africans saving for retirement in the areas of occupational retirement funds, individual-life products and unit trusts, using a model designed to evaluate the lifetime effect of these charges.

The analysis suggests that retirement funds are cheapest, followed by unit trusts and then individual-life products. These results are consistent with the flexibility of the more expensive products. Overall, however, charges appear to be high. Comparison with international benchmarks appears to confirm these concerns.

South Africa is in need of new pension-fund legislation and initial thinking on the framework has begun. The paper ends with thoughts on the implications of this research for policymakers.

## KEYWORDS

Retirement; administration; charges

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“Policymakers seeking to design efficient and smoothly-functioning pension systems for their aging workforces are beginning to acknowledge the key importance of administrative expenses when formulating rules for pension plan structure and fee disclosure requirements.”

—Mitchell & Bateman (2003): abstract

## 1. INTRODUCTION

1.1 How much are South Africans being charged for their retirement funding? Whether in occupational plans or private supplementary arrangements, workers pay for the opportunity to save for retirement through a variety of charges that erode the prosperity of their later years. This paper analyses the financial effect of these charges on retirement savings for occupational retirement funds and for individual retirement annuities, both life-assurance policies and unit trusts.

1.2 Why is this study relevant? Most countries provide a strong public-sector element to retirement saving. South African citizens in contrast depend strongly on the private

sector in the form of occupational retirement funds and a variety of additional voluntary savings options. It would be helpful to understand:

- what types of products are the most expensive and why;
- which groups of savers are most affected by charges; and
- how well these charges compare with international experience.

1.3 This research contributes to an understanding of the issues that need to be addressed as the regulatory authorities apply themselves to the task of rewriting the legislation governing retirement funding.

1.4 Section 2 describes the options available for the evaluation of the lifetime effect of these charges. Section 3 discusses the evidence from other countries to provide international context to the South African study and section 4 sets out an analysis of South African retirement charges, describing the methodology, discussing the results and drawing conclusions. In section 5, the implications of this research for the financial services industry and, more specifically, for policymaking in the retirement-fund arena, are considered. Finally, potentially fruitful areas for further research are set out.

## **2. MODELLING AND MEASURING CHARGES**

### **2.1 INTRODUCTION**

2.1.1 This section covers the types of charges that need to be considered and the options available for the modelling of these charge types to produce summary statistics and to facilitate meaningful comparison across product lines.

2.1.2 Are charges to be considered, or costs? The former concern the actual levies, administration fees, or policy deductions that reduce the retirement savings of an individual over their lifetime. The latter refer to the expenses incurred by the provider of the administration or investment service. For any given saver, charges and costs are unlikely to be the same. Over time, however, charges in aggregate are likely to match actual costs reasonably well, assuming that competition drives down profit to roughly equivalent levels amongst providers.

2.1.3 Regardless of these arguments, since the objective of the research is to determine the effect of these expenses on the retirement savings of the individual, the measurement of charges is more important than the determination of the costs incurred in provision of the services. The focus of this study, for this reason, is on the actual charges levied for services offered.

### **2.2 TYPES OF CHARGES**

2.2.1 Charges may be imposed in a number of ways. To provide standardised summary figures, it is important to recognise the variety of charges and their effect on total cost.

“Charges on long-term financial products, including pensions, are levied in many different ways. Some are one-off fees, usually a fixed sum payable up-front, although some initial

charges can be proportional to contributions in, say, the first year. Other one-off fees are payable at the end of the term ... [other] fees are ongoing. They can be a fixed fee per period, a percentage of contributions or a percentage of the assets in the fund.”

—Whitehouse (unpublished): 10

2.2.2 In the same paper Whitehouse goes on to derive the effect of a variety of charges on the future value of a fund build-up. Interested readers are referred to the mathematical derivation in his paper.

2.2.3 The most common types of charges are:

- for life-office products, a fixed monthly deduction, a percentage of each contribution and an annual percentage of the assets, though a fixed inception fee also occurs;
- for unit trusts, a percentage of each contribution and an annual percentage of the assets; and
- for retirement funds, an annual percentage of the assets for asset management and regular annual costs for administration that are expressed as a percentage of assets, a percentage of contributions or a percentage of the salary payroll on which the contribution calculation is based.

2.2.4 The percentage-of-contributions charge is seldom the same for all purchasers of a particular product, varying sometimes by the term of the policy or the level of the contribution. Percentage-of-assets charges are usually deducted monthly, but expressed as an annual equivalent.

2.2.5 Comparison across these channels is difficult. In section 4 of this paper, charges within each channel are analysed using the model described in this section. Thereafter the results are summarised, showing how overall costs depend on the selected channel.

## 2.3 SCOPE OF MEASUREMENT

2.3.1 Charges in financial services are complex. Not only is there a large variety of charges, but also some of them are explicit and some are implicit. An explicit charge is one that is clearly levied and generally easily measurable—a R6-a-month policy fee, for example, or 1,25% of the value of the assets per year. Implicit charges are absorbed into the asset pricing and are indirectly paid for by the policyholder, but measurement is difficult or impossible.

2.3.2 All asset trading, for example, results in costs to the provider, but these costs are seldom turned into explicit charges, being reflected instead in a reduction to portfolio value or a reduction in the price of units of a unit-trust account. Generally speaking, higher levels of trading result in higher implicit charges, but these are seldom notified to the end user and their effect goes unknown.

2.3.3 This study is not intended to measure implicit charges like trading costs, or implied charges arising from protection against anti-selection.

2.3.4 Alteration fees are also not included in this study. The complexity of dealing with a variety of product types and channels is challenge enough. Attempting to model changes to the savings pattern introduces too much difficulty and the potential for

misrepresentation. Reference may be made to Murthi et al. (unpublished a) for a study of the potential effect of these costs in the United Kingdom environment. The authors of that article estimate conservatively that at least 15% of value is lost in alterations over a lifetime of retirement saving.

2.3.5 This study covers charges during the build-up of capital required to secure an income after retirement. It does not cover the annuitisation process or the period after retirement, primarily because there are many options available to South African retirement savers on reaching retirement age. Most of these options are open to all channels of saving. Not only would this add further complexity to the analysis, but it would also smudge the distinction between the three major savings channels: the pension fund, the individual-life policy and the unit trust.

2.3.6 As pointed out by Murthi et al. (op. cit.), this is consistent with the approach adopted by most investigations, but that does not mean that it is ideal. It does not cover the effect of risk margins that protect against anti-selection by annuity purchases, a type of implicit charge. Murthi et al.'s (op. cit.) estimate of the cost of this effect to annuitants is in the region of 10% of value. This includes an allowance for the charges levied at the point of conversion to an annuity. Their paper appears to stand out in its efforts to quantify the great variety of charges to which retirement savers are exposed and is discussed in more detail in the literature review of charges investigations, in section 3.2.1.

## 2.4 OPTIONS FOR MEASUREMENT

Whitehouse (op. cit.) and others consider the options for measuring charges. In this section, three measures are presented and the advantages and disadvantages of each discussed. Readers interested in a more detailed discussion of these options are referred to Murthi et al. (op. cit.), James et al. (2001), Devesa-Carpio et al. (unpublished) and Diamond (unpublished).

### 2.4.1 REDUCTION IN YIELD

2.4.1.1 The reduction in yield is the percentage-point reduction in annual return over the period of saving that is equivalent in overall effect to the erosion of value due to all charges.

2.4.1.2 A few examples of the effect of various charges on the reduction in yield may help to clarify the concept.

2.4.1.3 The reduction in yield is the same as the percentage-of-assets charge, regardless of other assumptions like investment return and contribution growth rate.

2.4.1.4 The relationship between a percentage-of-contributions charge and the reduction in yield is more complex and depends on the other assumptions used. The most important determinant of the relationship between the charge and the reduction in yield is the term of the policy: the longer the term, the lower the reduction in yield for a fixed percentage of contributions. This is because the reduction in yield operates on a pool of assets that, as a multiple of the annual contribution, grows over the term of the saving. Other assumptions have much smaller effects. Reducing the expected investment return

increases the reduction in yield for a fixed percentage-of-contributions charge because the reduction in yield operates on a pool of assets that does not grow as rapidly, but the effect is small. The reverse applies to a reduced rate of increase in contributions (often a fixed percentage of salary) because, while the asset base grows more slowly, charges deducted are affected to a greater extent by the lower contribution growth rate. Again, the effect is much smaller than changes to policy term. Examples of the numerical effect of changes to assumptions are provided in section 4.3.7. Effects are also not directly proportional. With all other assumptions unchanged, for example, a 10% contribution charge is equivalent to a 0,69% reduction in yield over a 30-year term, while a 20% contribution charge is equivalent to a 1,48% reduction in yield. The other relevant assumptions for these calculations are contribution growth of 7% a year and investment returns of 10% a year.

2.4.1.5 A fixed policy fee affects the reduction in yield in proportion to the premium size and it operates in the same way as a percentage-of-contributions deduction, unless there are periods of interruption to contributions. The assumed rate of increase of fixed policy fees will also have a small effect if it is not identical to the assumed rate of growth of the contributions themselves.

2.4.1.6 Fixed initial and final charges have more complex effects on the reduction in yield. Only one example of a fixed initial charge has been encountered in the course of this research. Final charges are more common, often in the form of a cost recovery on early termination, but are outside of the scope of this study.

2.4.1.7 The reduction-in-yield measure has reasonable intuitive merit, as many people understand expected annual growth and would also understand the corresponding effective reduction to this growth. However, quoted alone it tends to put charges in a positive light, as these reductions appear to be swamped by high expected investment returns. Behavioural finance suggests as well that consumers tend to be over-optimistic about future investment returns, which serves further to put asset-related deductions in a less negative light. The expense measure may also be criticised for hiding the real effect of charges over an extended period of saving.

## 2.4.2 REDUCTION IN PREMIUM

2.4.2.1 The reduction in premium is the percentage reduction to each premium over the lifetime of the saving that is equivalent in overall effect to the erosion of value due to all charges.

2.4.2.2 Again, it helps to consider the effect of actual charge levels on the reduction-in-premium measure, as discussed in the paragraphs that follow.

2.4.2.3 For percentage-of-contributions charges, the relationship is simple and direct. A contract with charges expressed only as a percentage of contributions will have the same reduction in premium.

2.4.2.4 For fixed regular deductions, where contributions are payable throughout the period of saving and inflation of fixed charges is in line with contribution increases, the relationship is simple and depends on the fixed charge relative to the contribution.

2.4.2.5 For percentage-of-assets charges, the relationship is the inverse of the effect of percentage-of-contributions charges on the reduction in yield. The higher the charge, the higher the reduction in premium, though the proportional effect on the reduction in premium decreases with increasing charge. An annual management fee of 1% of assets is equivalent to 14,13% of every premium over a 30-year policy and a 2% fee is equivalent to 25,90%, assuming contribution growth of 7% a year and investment returns of 10% a year. The corresponding figures over a 40-year policy are 18,94% and 33,70% respectively. Most significant is the effect of the saving term: the longer the term, the greater the effect of the charge as measured by the reduction in premium.

2.4.2.6 Reduction in premium is in many ways intuitively more powerful than reduction in yield because consumers are better able to relate to an immediate deduction from their contribution than to an ongoing reduction in the effective annual return. This approach also better reflects the effect of annual deductions from a growing asset base. This can hardly be described as a hidden charge, but few savers consider the rand-cent effect of a percent-of-assets charge and, as pointed out above, most would consider it in the context of the expected or actual growth in asset value for the same period.

2.4.2.7 One situation in which the reduction-in-premium approach might lose its intuitive attraction is in that of discontinuous contributions, common in the South African retirement environment where employment is often interrupted. The intuition of an equivalent percentage of contributions fails where charges continue during the periods of no contribution, as they usually do. The resulting reduction-in-premium percentage is higher than it would otherwise have been.

### 2.4.3 CHARGE RATIO

2.4.3.1 The third charges measurement considered is called by many the ‘charge ratio’, but it could just as easily have been called, in life-assurance parlance, ‘reduction in maturity value’. Whitehouse describes it as “... one minus the ratio of the accumulation net of charges to the accumulation without charges ...” (Whitehouse, *op. cit.*:13)

2.4.3.2 It reflects the effect on the maturity value, that is the value of savings at the end of the accumulation phase. This also makes intuitive sense, because it demonstrates to the saver how much their retirement lump sum or resulting annuity is affected by the charges. Note, however, that the process of converting the retirement accumulation to an annuity or purchasing an alternative product is not included in the analysis. The charge ratio effectively considers the effect on the accumulated savings at the instant prior to their maturity.

2.4.3.3 The charge ratio gives the same results as the reduction-in-premium approach and therefore shares the advantages and disadvantages of that method.

### 2.4.4 WHAT TO USE?

2.4.4.1 Researchers tend to use the measure most closely resembling the actual structure of charges dominating in reality. Latin American analysis, for example, usually quotes reduction in premium, or charge ratio, because the majority of providers are restricted to, or choose to restrict themselves to, premium-related charges. Unit-trust

analysis usually quotes annual charges based on assets, the reduction in yield, again because the industry operates in this way. The newly launched stakeholder system specifies a maximum total charge in terms of an equivalent annual management charge. This is a reduction-in-yield approach and requires measurement also in reduction-in-yield terms.

2.4.4.2 The two measures are not equivalent and are sensitive to assumptions, particularly the term of the saving and the level of contribution. Comparison of very different types of contract must acknowledge this sensitivity and in the analysis described in this paper both sets of charges are calculated and quoted in any situation, so as to ensure consistency of underlying assumptions. As shown below, it is not easy to make comparisons between the charges of very differently structured products.

2.4.4.3 This approach is consistent with the methodology adopted by Whitehouse (op. cit.) in his wide-ranging comparison of the charges in thirteen different countries. He suggests that the robustness of the measure is the most important criterion and that using both measures to gain a clear picture is often unavoidable.

“Murthi, Orszag and Orszag (1999)<sup>1</sup> contend: ‘Although expressing fees in terms of annual basis points may be most familiar to investors, that form is not necessarily the most insightful’. ... When comparing funds or systems which rely on different types of charge, reliance on a single measure can be misleading, and the best approach is to use both the charge ratio and the charge as a proportion of assets.”

—Whitehouse (op. cit.): 25,26

## 2.5 DESCRIPTION OF MODEL

2.5.1 A relatively straightforward model has been developed to summarise the effect of charges. It is more appropriate in this context than the formula method used in Whitehouse (op. cit.) and repeated in Devesa-Carpio et al. (op. cit.), as it is more flexible and allows better calculation of the effect of the variety of charges encountered, particularly under individual-life policies. For example, most policies impose a monthly rand deduction called a policy fee. This is a relatively small amount, but is rarely fixed for the duration of the policy. Inflationary increases to the policy fee are more easily modelled through the spreadsheet than through a formula.

2.5.2 The model is run with two complete sets of charges and two corresponding projections of benefits. The actual set is used to store the charges being analysed. The shadow set allows only one charge type, the value sought, all other charges in the shadow set being fixed at zero. The required measurement factor in the shadow set, be it the charge ratio or reduction in yield, is varied to equate the maturity values given by the actual and shadow charge sets. When the maturity values produced by the two sets are the same, the result is given by the single charge factor used by the shadow set.

## 2.6 CHOICE OF PARAMETERS

2.6.1 Neither of the charge measures is particularly sensitive to the choice of financial parameters, but it makes sense nevertheless to select parameters that are

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1 Murthi et al. (unpublished a).

appropriate and likely to remain so for some time. Sensitivity testing is discussed as part of the analysis of South African charges in section 4. The choice of parameters has been guided by the following criteria:

- Parameters need to be appropriate to the long term, because saving for retirement is a long-term process, without being inappropriate to the current environment.
- The differences between parameters are more important than the nominal values.
- Parameters must be reasonable in the context of the South African saving environment but should be, as far as possible, consistent with the corresponding parameters used by other researchers, to make possible a fair comparison of results.

2.6.2 The financial parameters shown in Table 1 have been used in all calculations.

Table 1: Model parameters

	Annual rates (%)
Inflation rate	5
Salary growth	7
Investment return	10

2.6.3 The inflation rate takes into account South Africa's existing inflation targeting policy and the environment of lower inflation rates globally. Real salary growth of 2% a year and a real investment return for an equity-rich balanced portfolio of 5% a year take into account the margins experienced in the past and expected in future.

2.6.4 Murthi et al. (op. cit.) use the basis for the minimum funding requirements in the UK, which specifies an inflation rate of 4% a year, equity returns of 9% a year nominal and wage growth 6% a year nominal—the same real returns as shown in Table 1. Compared with that, the approach used for this analysis is perhaps a little ambitious on the investment returns side, since it also implicitly assumes a balanced investment portfolio.

2.6.5 James et al. (op. cit.) use assumptions in line with these sets. In real terms, they use annual wage growth of 2% and annual interest rates of 5%.

2.6.6 Some may suggest that the effect of mortality prior to retirement should form part of the analysis, particularly as it is likely to affect life policies more than other types of arrangement. Quite apart from the fact that mortality significantly complicates analysis, it is assumed that its effect is roughly neutral and that benefits paid on death approximate to the fund accumulated at that time in whatever vehicle the saver uses.

2.6.7 If mortality were to be built in to the modelling, then similar arguments might be used to extend the modelling to include voluntary withdrawals and surrenders. Again, the simplifying assumptions are that most arrangements pay an amount reasonably in line with the accumulated fund net of charges and that the effect of charges at the point of interruption is unlikely to be significantly different from the corresponding effect over an uninterrupted period of saving.

### 3. LIFETIME CHARGES: INTERNATIONAL REVIEW

“The U.S. Advisory Council on Social Security estimates that, under plausible assumptions, the *additional* administrative costs of a decentralized system absorb about 20 percent of a pension accumulation over a 40-year career (Orszag, 1999, page 33).”

—Barr (unpublished): 26, emphasis in the original<sup>2</sup>

#### 3.1 INTRODUCTION

3.1.1 Clearly, cost is influenced by design, voluntary or mandatory, centralised or decentralised, and so are the resulting fees. The purpose of this section is to develop a picture of the range of charges experienced by retirement-fund savers across a variety of systems. The number of studies focusing on charges and expenses is not large, so data is scanty, though it is growing.

3.1.2 One consequence of the sparse data is that not all practitioners calculate both reduction in yield and charge ratio. As a point of reference, the often-quoted comparison of the two is that, over a 40-year savings period, a 1% annual reduction in yield is approximately equal to a 20% charge ratio, or a one-fifth loss of retirement savings. On the standard assumptions used in the model (10% investment return and 7% contribution growth per year), a charge ratio of 18,94% is equivalent to a 1% annual percentage-of-assets charge.

3.1.3 Researchers also use various financial assumptions for their calculations. As pointed out above, the ratios are not very sensitive to variations in financial assumptions, which in turn have been found to be relatively small. Unfortunately, it is not always clear what assumptions researchers have used to calculate the quoted ratios, and this prevents a more rigorous analytical approach to the comparison of results across countries.

3.1.4 After summarising the research on a number of countries, a list is set out showing the suggestions from writers regarding the ways in which costs and charges might be managed or reduced.

#### 3.2 HIGH-INCOME OECD COUNTRIES

This section discusses the results of a number of research projects referring to five OECD countries, the UK, Australia, the United States, Sweden and Italy.

##### 3.2.1 UNITED KINGDOM

3.2.1.1 Analysis of the voluntary individual accounts sector in the UK, the personal pension environment, suggests a charge ratio of approximately 25% or a reduction in yield of between 1,2% and 1,4%.

3.2.1.2 The most comprehensive assessment of the UK environment appears to have been carried out by Murthi et al. (op. cit.). They estimate a charge ratio in 1998 of 25% and suggest that this had been falling from close to 30% over the previous six years.

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2 The full reference in the Barr paper is: Orszag, Peter (1999). Individual Accounts and Social Security: Does Social Security Really Provide a Lower Rate of Return? (Washington: Center on Budget and Policy Priorities). Available via the Internet: <http://www.cbpp.org>.

3.2.1.3 They go on to suggest that total charges, implicit and explicit, erode around 43% of workers' benefits. Their analysis comprehensively considers all factors that may reduce benefits, including transfers and conservatism of annuity pricing. Since similar studies in other countries have not been found, this figure is interesting but not particularly useful for comparison with other environments.

3.2.1.4 Murthi et al. (op. cit.) suggest that asset management provides relatively good value, accounting for around 15% of total costs, and that business acquisition costs, particularly commission, are key drivers of total charges to consumers.

3.2.1.5 The analysis of Murthi et al. (op. cit.) is confirmed by a number of independent studies in the UK. Whitehouse (op. cit.) quotes research by the Government Actuary giving an overall charge ratio of 25% and a reduction in yield of 1,3% and money-management surveys giving a charge ratio of 23% and a reduction in yield of 1,2%, though the surveys show a considerable range of charges. Whitehouse (op. cit.) shows a distribution of pension charge ratios of 15% to 33%. Devesa-Carpio et al. (op. cit.) quote a charge ratio of 25% and reduction in yield of 1,33%.

3.2.1.6 Murthi et al. (op. cit.) report on the initial outputs of a study of occupational pension schemes in the UK. They find that such schemes are unexpectedly expensive to run and that overall charge ratios are in the region of 20%, not much lower than for personal pensions, even though investment management fees charged to this sector are significantly lower. They point out that there are significant economies of scale, because of the high level of fixed costs, and that members of smaller schemes consequently experience charge ratios closer to the 25% in the personal-pensions environment.

## 3.2.2 AUSTRALIA

3.2.2.1 Australia depends on the private sector for management of the thriving mandatory retirement savings of its citizens, but it has successfully developed an extensive voluntary system in addition.

3.2.2.2 In many ways Australia provides the ideal measurement environment, thanks to relaxed regulations and the wide variety of vehicles available to retirement savers. Mitchell & Bateman (2003) have carried out multivariate analysis on the full range of providers to determine the effects of a number of factors. They quote a mean cost of 1,08% of assets but stress the large range, some savers paying up to 4% of assets annually.

3.2.2.3 Perhaps the most useful result of their analysis is presented in a table summarising the rough effect of charges on a cost ratio basis, according to their calculations. (See Table 2.)

3.2.2.4 Most workers in Australia are members of collective schemes known as industry funds, or of master trusts, which are individual pension accounts, what Mitchell & Bateman (op. cit.) refer to as 'retail'. Whitehouse (op. cit.) provides insight into the effects these two different arrangements have on retirement savings. His analysis shows a charge ratio of 11,2% and reduction in yield of 0,51% for industry funds, but for master trusts, corresponding figures of 35,5% and 1,91% respectively. Devesa-Carpio et al. (op. cit.) compute a charge ratio of 35,5% and reduction in yield of 2,09% for the master-trust

savings mechanism. They point out that the industry funds are cheaper not only because of the way in which they are arranged, often closed to new members and with zero marketing costs, but also because they offer a lower level of administrative support and a more restricted range of ancillary products.

Table 2<sup>3</sup>: Charge ratios in Australia

Plan size	Employer-sponsored defined contribution (%)	Employer-sponsored defined benefit (%)	Retail (%)
Small	15	21	28
Medium	12	16	22
Large	5	7	–

3.2.2.5 Chant West (unpublished) also demonstrates significant differences in fees across fund types. The calculation methodology used in this study may be slightly different but indications are that the ranges suggested in the Whitehouse study are still appropriate. The study quotes annual fees, roughly equivalent to reduction in yield, of between

- 0,5% and 0,6% for the largest industry funds, with over 100 000 members each;
- 0,8% and 1,0% for large employer-sponsored master trusts; and
- 1,2% and 1,9% for smaller employer-sponsored master trusts, depending on the size of the fund overall and average account balances, with commission adding typically 0,3% to 0,5% where it is paid.

3.2.2.6 The Chant West study suggests that charges, in reduction-in-yield format, for retail personal funds may be as high as 3% annually, but comparison is difficult because the calculation covers a shorter period of five or ten years, aggravating the effect of up-front charging. Commission contributes between 1% and 1,5% to the 3% total charge.

### 3.2.3 UNITED STATES OF AMERICA

3.2.3.1 A detailed study of the cost experience in the USA has not been carried out, but a few references to various aspects of the US savings environment are useful.

3.2.3.2 James et al. (op. cit.) use the US retail mutual fund environment as a benchmark to understand the significance of costs elsewhere. They point out the difference between reported expense ratios, covering investment, distribution and professional service costs, and total investor costs, which include actual trading costs and brokerage fees. The term ‘expense ratio’ has been deliberately retained, as it is a term with precise meaning in the US mutual-fund market. The point is that this is a publicly available figure that excludes brokerage fees and implicit trading costs. Trading costs themselves are an example of

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3 Mitchell & Bateman (2003:9–10).

hidden costs of investment referred to in section 2.3.3 above. They may be seen as absorbed by unit-holders and netted out of funds' gross returns.

3.2.3.3 Unweighted industry averages for these costs are an annual 1,28% of assets for reported expense ratios and 1,85% for total investor costs. The authors point out that significant economy of scale exists. This is demonstrated by the corresponding expense figures weighted by assets under management, which are 0,91% and 1,43% respectively.

3.2.3.4 Diamond (op. cit.) quotes somewhat higher reduction-in-yield figures of 1,49% of assets, excluding brokerage, also for 1997. He points out that charges have fallen from a level of 2,25% in 1980, which suggests either or both of greater investor awareness of charges and economies of scale.

3.2.3.5 James et al. (op. cit.) quote institutional fund charges at around one-half of those in the retail market. They go on to quote fees in passively managed funds at approximately one-third of those in actively managed funds, but point out that these may be kept artificially low by providers who know that fees are a significant issue to purchasers of passively managed mutual funds. Typically, these providers inflate the charge levels of funds not sensitive to price in order to subsidise price-sensitive funds. In their analysis of the industry, the authors point out that 43% of all costs are allocated to marketing budgets and question the usefulness of this allocation to the consumer. They hypothesise (ibid.: 19) that:

“competition through marketing rather than through price cuts may be a consequence of high volatility and the resulting high noise-to-signal ratio that makes it difficult for investors to distinguish between random luck versus systematic skill and low costs until many years of observations have elapsed. ... [Mutual funds] spend on marketing, pointing to their lucky returns, rather than cutting costs and price.”

3.2.3.6 The need to find ways to reduce marketing costs is a theme that echoes through the literature.

3.2.3.7 Fornero et al. (unpublished), writing on the charges in the Italian system, refer to the USA as a benchmark measure. They quote what they call an ‘annual equivalent charge’, a reduction in yield, of between 1% and 1,5% for an actively managed voluntary pension investment. The authors appear to refer to an open pension-plan structure. This would offer access to individuals but at broadly wholesale cost efficiency. (cf. Fornero et al., op. cit.: 3, 15)

3.2.3.8 The federal thrift savings plan (TSP), available to public sector employees, offers an interesting example of a system with very low costs through simple design. Only five investment funds are available to savers. The right to manage the portfolios for each fund are auctioned every two to four years and the auction works on the basis of price, that is, management fee. Furthermore, this system is exceedingly large with 2,3 million participants and US\$65 billion in assets by 1998 (James et al., op. cit.), which allows very low costs.

3.2.3.9 Record-keeping and communication costs under this system are fairly consistent at US\$20 per year per member and investment charges are no more than a few basis points, giving a total charge to members in 1998 of 0,11% of assets.

3.2.3.10 Clearly, this system has features that cannot be replicated elsewhere, notably its sheer size. Unquestionably, however, design contributes to the low costs, and hence to reduction in the erosion of retirement savings. The limited choice may be widened in due course without significant increase in cost.

### 3.2.4 SWEDEN

3.2.4.1 Planners of Swedish reform took considerable care to protect the retirement assets of workers saving in an environment of mandatory individual accounts, bearing in mind that economy of scale would be difficult to achieve with a contribution rate of only 2,5% of earnings.

3.2.4.2 They achieved this protection both through a set of maximum charges and through centralised administration:

- Asset managers may charge up to a maximum that is defined by a fairly complex formula that takes into account the size of the fund and the charge levied in the voluntary sector. The system allows higher fees for more complex or specialised funds, so that these options are not ruled out for investors who wish to invest in them, but it significantly reduces the scope for marketing. It also ensures that the benefits of gaining assets under management are passed back to the consumer, not maintained by the manager. See Whitehouse (op. cit.) and Palmer (unpublished) for a full description and justification of the approach.
- A clearing-house approach is used. Contributions to be managed by a given manager are bundled centrally and passed on to the manager without reference to the individuals that have selected that manager for their investment.

3.2.4.3 Whitehouse (op. cit.) suggests a fee in the region of 0,75% of assets for large managers, around half of the equivalent costs in the mutual-fund market. James et al. (op. cit.) give results that are consistent with Whitehouse's, but express them in another way, postulating a saving of between 0,70% and 1,00% of assets per year.

### 3.2.5 ITALY

3.2.5.1 Fornero et al. (op. cit.) have reported on a study of costs in Italy's voluntary-savings environment.

3.2.5.2 The initiative was launched early in this decade as part of the reforms of the 1990s, with the intention of stimulating voluntary saving to supplement the (unsatisfactory) social security system. It has two main components: a number of open pension funds offering defined-contribution savings; and a range of products called 'personal insurance policies', akin to South Africa's retirement annuity concept.

3.2.5.3 Following the convention of other researchers, the authors calculate a charge ratio and an annual reduction in yield, but because these products are taxed in the accumulation phase under Italian law, they adjust their figures to make them internationally comparable. They quote an equivalent charge ratio and an equivalent annual reduction in yield as shown in Table 3.

3.2.5.4 The analysis suggests a remarkable dichotomy between these two product lines, the open pension funds coming in much cheaper and with less variation.

The authors point out that differences in regulatory structure make comparison difficult and that the industry is very young, but admit their inability to explain the scale of the differences. They provide three possible explanations (ibid.: 20):

- Insurers may have been particularly risk-averse in their pricing in a young market.
- Insurers provide more choice and flexibility to policyholders than is available in open pension plans.
- Charges in the open plans are more homogeneous, allowing straightforward comparison “and a gradual convergence and an overall reduction in fees”.

Table 3. Costs in Italy’s third pillar system<sup>4</sup>

	Average costs (standard deviation in brackets) (%)	
	Equivalent charge ratio	Equivalent reduction in yield
Open pension funds	28,4 (4,3)	1,46 (0,26)
Personal insurance policies	42,7 (8,8)	2,47 (0,67)

### 3.3 LATIN AMERICA

The recently emerged Latin American systems have enjoyed a great deal of attention from researchers interested in the behaviour of charges in a free-market, individual-account environment.

#### 3.3.1 CHILE

3.3.1.1 Chile’s groundbreaking retirement system is rare in its almost complete dependence on individual accounts managed by the private sector for the prosperity of its citizens in old age. As a result, overall cost-effectiveness is very important to the participants in the system.

3.3.1.2 Chilean funds are permitted to charge a combination of a percentage of contributions and a fixed regular fee. All of the funds except one have a fixed charge, but this is set at a low level, averaging USA\$1 a month (Whitehouse, op. cit.).

3.3.1.3 The charges levied by Chilean funds have changed over time. Not only has the system matured, providing growing assets under management and reducing concerns about financing initial costs, but policy interventions have changed the landscape. In 1988, for example, the annual management charge levied as a percentage of assets was abolished. Fixed and percentage-of-contribution charges were raised by providers in response, but subsequently dropped again under competitive pressure. Chile has experienced a steady reduction in charges. James et al. (op. cit.) quote a fall from 9% of assets in 1982 to 1,36% in 1998. These charges are now roughly on par with USA mutual funds and well below the corresponding charges in the Chilean voluntary mutual-fund sector.

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4 Fornero et al (op. cit.: 4).

3.3.1.4 Whitehouse (op. cit.) calculates a reduction in yield of 0,88%, or an equivalent charge ratio of 17,7%, using figures at the end of 1999. These figures might seem reasonably competitive, but this is a mature system with accumulated funds of more than 40% of gross domestic product (Queisser, 1998). Uthoff (2001) describes the level of charges as one of the key problems that need to be addressed. He suggests that high levels of regulation have resulted in low product differentiation and consequently low elasticity of demand to price. This in turn has led to high marketing costs as managers compete to attract affiliates (James et al., op. cit.). Furthermore, because charges increase with contribution, competition is highest for the highly paid. Switching between providers reached a peak in 1997. In that year the authorities capped the allowable frequency of switches, resulting in a falling number of sales agents and reducing switching activity.

### 3.3.2 OTHER LATIN AMERICAN COUNTRIES

3.3.2.1 Whitehouse (op. cit.: 28) also provides a comparison of the charges in Chile with those in other Latin American countries; see Table 4. (In that table, aggregate figures are unweighted.) He makes a number of observations concerning his analysis of Latin American charges:

- Increasing the number of providers does not appear to lead to lower charges. Argentina and Mexico top the charges rankings despite having the highest number of managers.
- The ranges in countries differ considerably, though these ranges are generally greater where there are more managers.
- There is little evidence of economies of scale. Comparison of unweighted figures with the same figures weighted by assets under management (not shown in Table 4) would provide such evidence were it present.

Table 4. Charges in Latin America (Whitehouse)

	Number of funds	Reduction in yield %	Charge ratio %	Range of charge ratio %	
				lowest	highest
Argentina	13	1,20	23,1	17,4	27,9
Chile	8	0,88	17,7	14,5	20,4
Colombia	8	0,65	13,5	11,9	16,7
El Salvador	5	0,85	17,1	16,1	18,4
Mexico	13	1,39	26,0	19,3	35,4
Peru	5	0,96	19,1	18,6	20,0
Uruguay	6	0,72	14,7	13,2	15,8

3.3.2.2 He warns against direct comparison of the corresponding charges in these countries because of differences in their rules and environments. Mexico, for

example, is the only country with freedom of charging structure (Grandolini & Cerda, unpublished). The level of maturity of the systems is also different.

3.3.2.3 Bolivia is not listed with the other countries, because its features are sufficiently distinct to make comparison unhelpful. Thanks to the country's very restricted system of only two managers, an initial monopoly on affiliates, the auction process and the privatisation, costs to affiliates are extremely low. Workers pay 5% of contributions and just under 0,23% on assets, equivalent to a charge ratio of 9,8% or reduction in yield of 0,46% (Whitehouse, op. cit.). Devesa-Carpio et al. (op. cit.) quote a charge ratio of 9,5%.

3.3.2.4 As if to confirm the difficulty of measuring charges, or their propensity to change over time, Devesa-Carpio et al. (op. cit.: 24) list somewhat different charge ratios to Whitehouse, effective 30 June 2001 (see Table 5).

Table 5. Charge ratios in Latin America (Devesa-Carpio et al.)

	Charge ratio %
Argentina	21,2
Chile	15,3
Colombia	14,1
El Salvador	15,1
Mexico	17,4
Peru	23,0
Uruguay	13,8

### 3.4 EASTERN EUROPE AND THE FORMER SOVIET REPUBLICS

The information available concerning the new mandatory systems in this region is scanty. On the whole, though, it appears that charges will prove to be fairly low relative to many other parts of the world. In many cases, charges are restricted by statute or regulation, in either form or magnitude. This may reflect concern emanating from the experience in Chile that some type of control is necessary in order to protect the mandatory savings of workers. A few countries are discussed below.

#### 3.4.1 POLAND

3.4.1.1 Poland allows fees based on contributions and on assets, but no flat charges. Asset fees are limited to 0,05% a month, equivalent to 0,62% a year. Contribution charges are not limited, but providers are not permitted to discriminate between applicants in order to attract more affluent savers, though they are allowed to offer incentives to stay with a provider for long periods, through long-service discounts.

3.4.1.2 Levies are in the region of 7% to 9% of contributions and are expected to fall to around 5% in the future (Whitehouse, op. cit.; Chlon et al., unpublished). Based on the conservative assumption of 9% of contributions, the charge ratio calculated by

Whitehouse is 20,5% and the reduction in yield 1,05%. Devesa-Carpio et al. (op. cit.) calculate a 20,5% charge ratio and a 1,06% reduction in yield. At the optimistic end of the scale, with charges starting at 7% of contributions and falling to 5%, the corresponding results are a 17,1% charge ratio and a 0,85% annual reduction in yield.

### 3.4.2 THE CZECH REPUBLIC

Lasagabaster et al. (unpublished) quote operating costs in the Czech Republic of between 14% and 18% of contributions in the voluntary third-pillar system, depending on whether the State co-contribution is included or not. The equivalent reduction in yield has been calculated at between 0,71% and 0,94% on terms giving similar results to those calculated by Whitehouse (op. cit.). The same standard set of assumptions as in Whitehouse have been used—investment returns of 10% a year, salary and contribution growth of 7% a year and inflation at 5% a year—and a 40-year savings period. The calculated results in this research are consistently a little higher, by just a few basis points, than those produced by Whitehouse. The government co-contribution should probably be excluded as it dampens the effect of charges, which means that the higher charge of each pair is more useful for purposes of comparison with figures for other countries.

### 3.4.3 CROATIA

3.4.3.1 The authorities in Croatia limit the allowable charges to 0,8% of contributions, 0,8% of assets and a fixed success fee of 25% of real returns (Anusic et al., unpublished). The asset maximum will be revised in future and is likely to be reduced as the system matures. The success fee is not negotiable and is designed to encourage performance competition. Fund managers may also levy switching and exit fees. If administrators do charge at or close to the maximum, these are high charges, equivalent to a 1,4% annual reduction in yield, or 15% of contributions in 2015, rising to 20% in 2033. Furthermore, these figures do not include the fees levied by REGOS, the clearinghouse system, which are expected to push these figures to a 2% reduction in yield in the long term and as high as 2,5% initially.

3.4.3.2 Equivalence is difficult to establish from the figures provided by Anusic et al. (op. cit.), but 2% of assets is roughly equivalent to 34% of contributions for a 40-year saving term, assuming annual investment returns of 10% and salary growth of 7%. For purposes of comparison with other countries in the next section, it has been assumed that not all providers charge at the maximum.

3.4.3.3 Anusic et al. (op. cit.) go on to point out that, even if the asset fees were revised downwards to 0,4%, half of their current level, Croatia's charges are likely to be high by international standards.

### 3.4.4 HUNGARY

Analysis of charges in Hungary's young system is difficult, but Rocha & Vittas (unpublished) suggest figures of between 7,5% and 11% of contributions. This is lower than in Latin America and they postulate additional charges for asset management and external administration of between 0,5% and 1% of assets per year. This is equivalent to

between 16,8% and 27,9% of contributions, the charge ratio, or between 0,87% and 1,57% of assets, the reduction in yield. The authors suggest that marketing and commission costs have been lower than elsewhere and that sponsors may have absorbed a proportion of costs by providing premises or staff time without charging. This occurs in the South African occupational environment as well and complicates the analysis described in this paper.

### 3.4.5 KAZAKHSTAN

3.4.5.1 The authorities in Kazakhstan have demonstrated their commitment to bold reform, not only by terminating the defined benefit pay-as-you-go system, but also by imposing very tight charging limits on the administrators. The types of charges allowed are also innovative. Fees are limited to 1% of contributions and 10% of the actual investment return (Andrews, unpublished; Whitehouse, op. cit.). An investment return in any year of 10% allows a fee of 1% of assets, for example, and a return of 5% allows a fee of 0.5%. The authors give no detail concerning the treatment of years of negative performance.

3.4.5.2 Whitehouse (op. cit.) calculates the resulting charge ratio as 11,45% and the equivalent reduction in yield as 0,55% and Devesa-Carpio et al. (op. cit.) agree with these figures.

3.4.5.3 This author, on the other hand, does not agree with the figures. The asset-related figure can be replicated only by assuming annual returns of 5%, but there is no evidence that the charge is based on the real return only. The charge ratio cannot be duplicated: in all attempts, a higher figure was calculated. On the standard set of assumptions, an equivalent charge ratio and reduction in yield was calculated as 19,75% and 1,05% respectively. In the summary in Table 6, a range of figures is quoted.

3.4.5.4 A number of commentators have suggested that these limits are likely to prove too low to be sustainable (Andrews, op. cit.). Funds have indicated that break-even membership numbers are likely to be between 100 000 and 150 000. Only one fund has achieved this to date (Whitehouse, op. cit.).

## 3.5 SUMMARY

3.5.1 The vast majority of the research refers to mandatory individual-account systems, since this is where much of the literature is focused. This makes comparison with South African unit trusts and defined-contribution funds appropriate, but perhaps stretches the appropriateness of direct comparison with individual-life arrangements at the one extreme and defined-benefit occupational systems at the other. Some researchers would suggest that comparison with a voluntary unit-trust environment is not appropriate. The argument is based on the premise that assets under management in a voluntary environment are generally lower than in the equivalent mandatory environment, and costs correspondingly higher. This is discussed in the analysis of results in section 4.6.

Table 6: Consolidated summary of charges analysis<sup>5</sup>

	Reduction in yield %	Charge ratio %	Notes
<b>Mandatory systems</b>			
Bolivia	0,5	9–10	Duopoly subsidised by privatisation
Australia (industrial)	0,5	11	Equivalent to a group product
Kazakhstan	0,6–1,1	11–20	
Colombia	0,7	13–14	
Uruguay	0,7	14–15	
Sweden	0,8	15	Higher for smaller funds
El Salvador	0,9	15–17	
Chile	0,9	15–18	Mature system
Poland	0,8–1,1	17–21	
Hungary	0,9–1,6	17–28	
Peru	1,0	19–23	
Australia (all)	1,1	21	
Argentina	1,2	21–23	
Mexico	1,4	17–26	
Croatia	1,5–2,5	27–40	Based on generous limits
Australia (master trust)	1,9	35	Wide range of choices offered
<b>Voluntary systems</b>			
USA TSP	0,1	2	Exists in unusual circumstances
Czech Republic	0,7–0,9	14–18	
Italy (open funds)	1,2–1,7	24–33	Immature system
UK personal pensions	1,2–1,4	23–25	With a very large range (not shown)
Italy (personal policies)	1,8–3,1	34–51	Immature system
USA mutual funds	1,8–2,0	31–34	Total investor costs, unweighted

5 Sources: Anusic (op. cit.), Andrews (op. cit.), Chlon et al. (op. cit.), Devesa-Carpio et al. (op. cit.), Diamond (op. cit.), Fornero et al. (op. cit.), James et al. (op. cit.), Lasagabaster (op. cit.), Mitchell & Bateman (2003), Murthi et al. (op. cit.), Rocha & Vittas (unpublished), Whitehouse (op. cit.) and the author's own calculations and approximations.

3.5.2 Table 6 is not a scientific summary of all of the information presented above, but an indication of the charges in various countries. Figures are rounded to remove the impression of accuracy and they apply to different dates, though all information is as recent as possible. Where researchers have provided a range of figures, these have been quoted here, but that practice has not been extended to all countries. Though the figures are inadequate for purposes of accurate comparison, they are an attempt to provide a reasonably coherent overall picture.

3.5.3 Examination of the table shows that system design is likely to influence charges more than external factors like national prosperity or sophistication of markets. Perhaps contrary to expectation, competition alone does not drive down costs. As Orszag & Stiglitz (unpublished) state:

“Competition ... only precludes excess rents; it does not ensure low costs. Instead, the structure of the accounts determines how high the costs are. Furthermore, centralized approaches—under which choices are constrained and economies of scale are captured—appear to have substantially lower costs than decentralized approaches. Low administrative costs thus may be possible under an idealized set of accounts—one that involves a centralized approach—but not under a decentralized approach.”

3.5.4 This has been confirmed by the experience in the UK and in Chile.

### 3.6 TECHNIQUES FOR REDUCING COSTS

3.6.1 A number of researchers have suggested ways in which the aggregate cost to savers might be reduced. These are discussed in the paragraphs below.

3.6.2 One way of reducing costs is by centralising elements of administration. This introduces economies of scale and allows co-ordination with existing systems; for example, tax-collection systems. The clearing-house approach adopted in Sweden and other countries takes this further, because fund managers have only one customer. Fox & Palmer (1999) suggest that, in comparison with overall benefit reduction (equivalent to a charge ratio) of around 25% under the Latin American decentralised administration model, the clearing-house approach reduces total benefits by around only 5%, a considerable saving.

3.6.3 A detailed discussion of the advantages and disadvantages of the model is not within the scope of this paper. There are drawbacks, one of which is that it takes a long time for funds to find their way to the manager, resulting in a significant period during which market-related returns are not earned on savings.

3.6.4 The development of economies of scale helps to reduce processing and fund-management costs. James et al. (op. cit.) suggest finding ways to pool accounts and derive the benefit of institutional, as opposed to retail, markets. Whitehouse (op. cit.), on the other hand, points out that there appear to be some limits to the effectiveness of economies of scale, which suggests that they should not be pursued to the exclusion of other objectives. He refers to studies carried out in Latin America, Australia and the USA that show a variety of results concerning the existence of economies of scale.

3.6.5 Allowable charges may be limited by regulation, either by limiting them to certain types of charges or by putting ceilings on each type. Limiting charges to certain

types may make comparison of products easier for consumers. This will not necessarily result in acceptably low costs, as pointed out by Orszag & Stiglitz (op. cit.) (see quotation above). Charge ceilings have a direct effect, but are risky as they may be set at levels too high to be effective. Croatia appears to be a case in point. Alternatively, they might be too low to allow development of the market. Kazakhstan appears to run this risk, though market development has proceeded fairly well so far. The authorities in the UK have recently announced plans to raise charge limits on the stakeholder products launched a few years ago. Sweden appears to be the best example of careful charge limitations, but these are complex and complexity alone doesn't guarantee effectiveness. In any case, improved transparency of charges should be sought as a policy objective.

3.6.6 Marketing costs may be limited. From the perspective of the national system, switching between providers is a wasteful activity. To curb this, limits may be placed on marketing spending or, perhaps more effectively, switching may be limited or made more difficult.

3.6.7 Portfolio freedom can be limited. Constraints on portfolio choice and flexibility almost certainly have positive effects on cost, but are not necessarily in the best interest of savers. Whether or not this is an appropriate option depends on the characteristics of the market and the priorities of the supervisory authorities.

3.6.8 Costs can be shifted away from the focus area. This can be achieved in a number of ways. In a mandatory savings environment, charges may be shifted to the voluntary sector, so that those who can afford to save additional amounts cross-subsidise those who cannot or will not. System set-up costs can also be spread over a long period, shifting costs to later generations.

3.6.9 Cross-subsidies to low-income workers can be used to shift the burden of charges away from those who can least afford it. This can take place in a number of ways: for example, through limiting the structure of charges to exclude fixed fees, or through co-contribution by government without charges on this portion of the total contribution. This could be taken further: Mitchell (unpublished: 31) suggests subsidising the administrative cost or commission of the low-income saver.

3.6.10 Whitehouse (op. cit.), at the end of a thorough examination of charges across a number of countries, makes the point that reducing charges should not be seen as the most important goal of system design. Single-minded pursuit of this goal is likely to compromise some of the other important objectives of the system, public or private, voluntary or mandatory. This point is revisited in section 5 after the analysis of the South African experience. Though the objective of this paper is to examine charges and their effects on savings, this should always be seen in the context of other policy-making objectives.

## 4. ANALYSIS OF CHARGES IN SOUTH AFRICA

### 4.1 INTRODUCTION

4.1.1 This is the key part of the paper. Having painted a comprehensive background of the variety of national pensions systems and the information available on retirement costs in these systems, we turn now to an analysis of charges in South Africa.

The objective is to build as clear a picture as possible of what it costs South Africans to save for retirement.

4.1.2 Three channels, or broad product types, are available to South Africans, all offering tax deductions on contributions. These are:

- occupational retirement funds;
- individual retirement-annuity policies issued by life offices; and
- individual unit-trust products issued by collective investment companies.

4.1.3 Tax complicates the comparison. In all cases, qualifying contributions are exempt from tax at the full marginal rate, though there are differences between channels in the ceilings to the exempted amounts. Assets under management during the accumulation phase are taxed and this may affect the three channels in different ways. Rules concerning the way in which these assets may be invested also differ. Trustees of an occupational retirement fund are limited to investing 75% of the assets of the fund in equities, for example.

4.1.4 No attempt has been made to incorporate these differences into the analysis. This paper is not intended to provide a detailed comparison of the savings channels, but a reasonably comprehensive analysis of the charging features of each.

## 4.2 OCCUPATIONAL RETIREMENT FUNDS

“Retirement funds in South Africa consist of defined benefit and defined contribution funds (broadly known as pension and provident funds), retirement annuity, umbrella and preservation funds.”<sup>6</sup>

### 4.2.1 INTRODUCTION

4.2.1.1 The South African retirement-fund environment is complex. There is a large variety of arrangements that do not all fall under the regulatory responsibility of the Financial Services Board (FSB). Retirement funds supervised under the Pension Funds Act (Act no. 24 of 1956), which is currently being considered for complete revision, adding to the importance of this research, include:

- those whose head office, or the head office of whose sponsor employer, is based outside of South Africa, which are exempt from certain provisions of the Act;
- funds operating entirely under a policy of insurance issued by a South African insurer, known as insured funds; and
- self-administered funds “that invest their assets with bodies and institutions in the public and private sectors of the economy on their own behalf and to which the provisions of the Act apply”<sup>7</sup>.

4.2.1.2 There are nearly 12 000 insured funds. There are a number of large funds in this category, but mostly funds in this group are small. The average over all funds for

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6 Registrar of Pension Funds (2002). *Forty-third Annual Report 2001*, Financial Services Board of South Africa: 4.

7 Registrar of Pension Funds (2002). *Forty-third Annual Report 2001*, Financial Services Board of South Africa: 4.

this group is 425 members. Assets per fund average only R16m. In general, actuarial valuations are not required of these funds.

4.2.1.3 Average membership in self-administered funds is nearly 900 and assets per fund R116m. There are a little over 3 000 self-administered funds in South Africa. Generally speaking, these funds are required to undertake actuarial valuations.

4.2.1.4 A number of funds are not supervised under the Act:

- funds for employees of the State and certain parastatals, established by special laws;
- the funds of Transnet, Telkom SA Limited and the Post Office Pension Fund, all established by separate Acts; and
- funds that have been established by collective agreements administered by the Department of Labour and are not registered under the Pension Funds Act.

4.2.1.5 The focus of this research is on the so-called self-administered funds, which can be regarded more generally as occupational defined-benefit or defined-contribution funds. These funds are a natural area for analysis of the choices faced by South Africans saving for retirement. They are most consistent with occupational funds in other countries and are reasonably large in average membership, but they are also subject to a fairly high level of regulation. This is where the Registrar also puts the weight of his analytical effort, devoting substantial portions of his annual report to this sector alone.

## 4.2.2 DIFFICULTIES OF ANALYSIS

4.2.2.1 Paucity of information is a problem generic to the retirement-fund environment and analysis proved difficult. Even the Registrar has difficulty publishing clear analysis of the self-administered funds. Of the 3 198 self-administered funds registered under the Act at the end of 2001, for a variety of reasons only 2 528 are included in the statistical information provided with the report.

4.2.2.2 It was not possible to obtain and analyse data covering every component of the industry. As a result, based on evidence gathered from as wide a variety of sources as possible, tentative conclusions have been drawn regarding the industry.

4.2.2.3 There are a number of reasons for the difficulties of analysis: undisclosed charges, the potential for the sponsor to subsidise the fees, the variety of information sources and the variety of possible measurement tools. These are enlarged on in the paragraphs that follow.

4.2.2.4 It appears that not all fees and costs incurred by retirement funds are disclosed, either in fund accounts or in actuarial valuation reports. For example, asset managers sometimes provide performance figures net of fees for the purposes of fund accounts. In these instances, trustees do not publish fund-management fees in fund reports or accounts. Perhaps these fees are not regarded as a cost but as a deduction from performance.

4.2.2.5 Costs incurred by the sponsoring employer in support of the retirement-fund arrangement, for example management time and human-resources administration, are often not passed on to the fund or reported as part of fund accounts, but considered part of the responsibility of the employer. Should these costs be included in this analysis?

As they are unlikely to be passed on to members, some would argue that they should not be considered. On the other hand, they may form part of the employer's decision regarding whether to offer a fund and how to split the contribution between sponsor and members. For this reason, it should be acknowledged that these costs exist even if it is difficult to determine what they are.

4.2.2.6 The FSB has chosen not to supply detailed information as reported by the funds. A number of consulting firms have suggested that information held by them on behalf of their clients is confidential and others have declined to participate in the study. It would be impractical to attempt to obtain the information direct from over 3 000 funds and the results would probably be subject to significant reporting error. Instead an attempt was made to build a coherent picture by analysing information from a variety of sources, like the providers themselves.

4.2.2.7 There is no uniform way in which retirement-fund costs are described, and hence measured. Asset-management fees are usually billed as a proportion of assets, sometimes with a performance incentive, while fund-administration expenses are frequently expressed as a percentage of payrolls. Smaller costs are often absorbed as fixed rand amounts. As retirement funds are heterogeneous, with widely differing characteristics of financial flows, contribution rates and size of membership, it is not easy to summarise this variety into a single acceptable measure.

4.2.2.8 It would be useful if this research were taken further in future, with a complete data set facilitating sound conclusions.

#### 4.2.3 REGISTRAR OF PENSION FUNDS

4.2.3.1 The Registrar publishes information concerning fund expenses in his annual report. Table 7 summarises the statistics for self-administered funds published in the 2002 report. Retirement fund tax is excluded from this analysis.

4.2.3.2 The total cost is equivalent to 13,1% of total annual contributions or, alternatively, 0,799% of total assets. (For the contribution and asset totals, reference may be made to the Annual Report of the Registrar of Pension Funds, 2003.) Of these costs, investment advisors' fees are equivalent to 4,9% of contributions or 0,302% of total assets. Administration fees and consultancy fees are equivalent to 5,4% of contributions or 0,327% of assets. These figures are referred to after carrying out more detailed analysis of these costs.

4.2.3.3 The information depicted in Table 7 has a number of drawbacks:

- It does not include undisclosed expenses incurred by sponsoring employers, which means that it understates total administration costs incurred in self-administered retirement funds. Anecdotal evidence suggests that this effect could be significant; a number of employers cover their retirement fund expenses completely.
- The information applies only to funds that submitted financial returns. As noted earlier, a significant proportion of the funds registered under the Act were excluded from the 2001 analysis. The similarity of 2001 and 2002 figures suggests that an equivalent proportion of the data is missing in each case. Two of the largest self-administered funds are definitely excluded from the 2002 analysis as they changed their year-end

dates to dates in 2003<sup>8</sup>.

- Because of the potential for misreporting by funds, it should not be assumed that the breakdown of the total amount into the relevant categories is reliable. For example, the FSB has made it clear in discussion that the term ‘investment advisor’s fees’ covers both independent advice concerning assets and the fees charged by investment managers themselves. This may not be clear to those providing the data and individual funds may report figures differently.

Table 7. Aggregate administration expenses reported by South African self-administered funds (Rm)<sup>9</sup>

Investment advisors’ fees	1 096
Administration fees	1 091
Consultancy fees	97
Salaries and wages	76
Auditors’ fees	53
Valuators’ fees	48
Rent and office expenses	44
Secretarial fees	27
All other fees	372
<b>Total</b>	<b>2 904</b>

4.2.3.4 Despite these difficulties, this information represents at worst a useful starting point.

4.2.3.5 In summary, allowing for administration costs carried by employers and not reported in fund accounts, total administration costs in 2002 are likely to have exceeded 13% of contributions or 0,80% per year of assets.

4.2.3.6 As consolidated information on retirement fund costs is very difficult to obtain, the major components of these costs have been set out separately, starting with asset management and following that with administration. Thereafter a consolidated picture of lifetime savings cost for occupational retirement funds is constructed.

#### 4.2.4 ASSET MANAGEMENT: DESCRIPTION OF PROCESS AND DATA

4.2.4.1 As already noted, information on asset-management costs can be difficult to obtain from the accounts of retirement funds because they are sometimes not

8 Registrar of Pension Funds. *Forty-fourth Annual Report 2002*, Financial Services Board of South Africa: 5.

9 Registrar of Pension Funds. *Forty-fourth Annual Report 2002*, Financial Services Board of South Africa: 12.

disclosed, having been deducted from gross investment performance in the income figures. Asset management fees have been analysed instead using an Alexander Forbes survey of fees quoted by the asset managers themselves. The effective date of the survey is 31 December 2001.

4.2.4.2 So-called ‘guaranteed funds’, offering smoothed returns, have not been included in the analysis of asset management fees. It can be difficult to separate asset management fees from the charge for the guarantee. Guaranteed funds are also excluded from the analysis of individual-life policy charges.

4.2.4.3 Table 8 shows a typical set of charges for a South African asset manager. (This is only an example of typical industry practice. The figures are fictitious.) Some managers charge a flat percentage of assets under management irrespective of investment size. More frequently, managers use a stepwise scale of charges that depends on the amount invested and reduces with increasing investment amount, as shown in the example. Some managers charge separately for international assets, while others prefer to build the cost of offshore management into the standard table of charges.

Table 8: Typical charge levels of South African managers of institutional assets

Amount invested	Annual charge as % of assets
Domestic assets:	
– up to R25m	0,65
– on the next R25m	0,55
– on the next R50m	0,50
– on the next R150m	0,45
– on the next R250m	0,40
– on the next R500m	0,38
– thereafter	0,35
International assets	1,00

4.2.4.4 For each manager and, in steps of R10m up to R1bn, the effective charge as a percentage of assets was calculated. A proportion of 15% was assumed invested in international assets and the balance invested locally at the quoted rates. This is slightly conservative because 15% is the current legal maximum for international holdings and is not the level at which all South African retirement funds choose to invest overseas, but using this figure is at least consistent. A reduction in the international proportion from 15% to 10% would pull down the asset charge for R300m quoted in Table 9 from 0,565% to 0,535%, a difference of only 0,03%.

4.2.4.5 Table 9 shows, for example, the effective rates at selected asset levels given by the fictitious rates in Table 8.

4.2.4.6 Where managers offer multiple portfolios at different rates, these were all

captured and the analysis was first completed across all available portfolios. For each manager, an unweighted average of the rates in their portfolios was then calculated across the manager's portfolios, so as to avoid giving a higher weighting to managers with more portfolios.

Table 9. Asset management charges resulting from fee rates in Table 8

Amount invested (Rm, total)	Effective annual charge as % of assets
30	0,70
100	0,63
300	0,57
1000	0,51

4.2.4.7 The weighting of managers by assets under management was considered but discarded for two main reasons:

- It is possible to obtain figures like assets under management, but more difficult to correctly ascribe these to the relevant portfolios currently open to business. One would also need to decide how to treat closed portfolios.
- It is not clear that asset-weighted figures are appropriate to this research, since the objective of the research is to gain some sort of sense of the type and range of charges that retirement-fund members are exposed to. This is more important than to narrow down the analysis to the single average charge across the industry.

4.2.4.8 Of 49 portfolios available from 23 different managers, 42 were included in the analysis. These portfolios were provided by 21 different managers. Only one manager of passively managed portfolios is included in the Alexander Forbes survey and these figures were discarded. Three portfolios have low basic fees and performance incentives on top of this: it was decided to discard these portfolios from the sample rather than to try to build in assumed fund performance. Three portfolios use an unspecified sliding scale at the large end of the size spectrum and these were also discarded. One manager uses a similar sliding scale at the small end of the size spectrum and it was included using appropriate estimates of the missing figures. Because the missing data apply only to a relatively small first part of the assets under management, errors in the estimates have very small effects on calculated figures.

4.2.4.9 Analysis was carried out by portfolio and for each manager, separately for pooled and segregated portfolios and separately for multi-manager and single manager portfolios. A 'pooled portfolio' is one that is shared by a pension fund with a number of other funds. Charges are supposedly lower, but flexibility of investment objectives is lost. A 'segregated portfolio' is one that is set up specifically for one client and the trustees of the fund concerned have greater freedom to set constraints and objectives in line with their requirements and to measure the manager against these requirements. A 'multi-manager' is one that invests not in securities but in the funds of other managers. This is referred to also as a 'fund-of-funds' arrangement. 'Single managers' are those that invest direct in

marketable securities and property, but not in the funds of other asset managers. This situation is replicated in the retail asset management space.

4.2.4.10 This analysis may slightly overstate actual charges for large funds, because managers are frequently willing to overrule their own fee schedule and reduce their price by a few basis points to secure the business. Explicit allowance for this has not been made, but where the fee schedule states that charges above a given level are negotiable, it has been assumed that the actual charge at this level is 5 basis points below the next best charge. To clarify, it has been assumed for example that a manager quoting 0,45% up to R500m and ‘negotiable’ thereafter actually charges 0,40% for all amounts above R500m. Analysis has been limited to amounts of R1bn and lower because of the uncertainty of costs for very large funds.

4.2.4.11 Most managers quote a minimum fund size. These minima vary and are different for segregated and pooled portfolios. No attempt has been made to exclude managers at the small end of the scale where the amount invested would be below this threshold. Selective exclusion of managers would distort the analysis because not all managers would be included at each level of assets.

#### 4.2.5 ASSET MANAGEMENT: RESULTS

4.2.5.1 Table 10 shows, for selected asset size, the industry mean and standard deviation for the 21 managers included in the sample, where the results for each manager are determined as the unweighted mean of the corresponding figures from their respective portfolios.

Table 10. Institutional asset management costs in South Africa, equal-weighted managers<sup>10</sup>

Amount invested (Rm)	Mean annual charge as % of assets	Standard deviation (%)
30	0,69	0,13
100	0,63	0,11
300	0,56	0,09
1000	0,51	0,09

4.2.5.2 Figure 1 depicts these figures, covering fund sizes up to R1 billion. The analysis in that figure is restricted to one set of data per manager. The graph illustrates the consistent downward curve of charges as assets under management increase. The mean charge falls from approximately 0,70% of assets per year to 0,50%. Around one-sixth of managers in the survey charge more than 0,10% above the median and a similar proportion undercharge the median by 0,10% or more. More detailed analysis of the percentiles shows some evidence of a charging floor of around 0,40% and strengthening price competition for

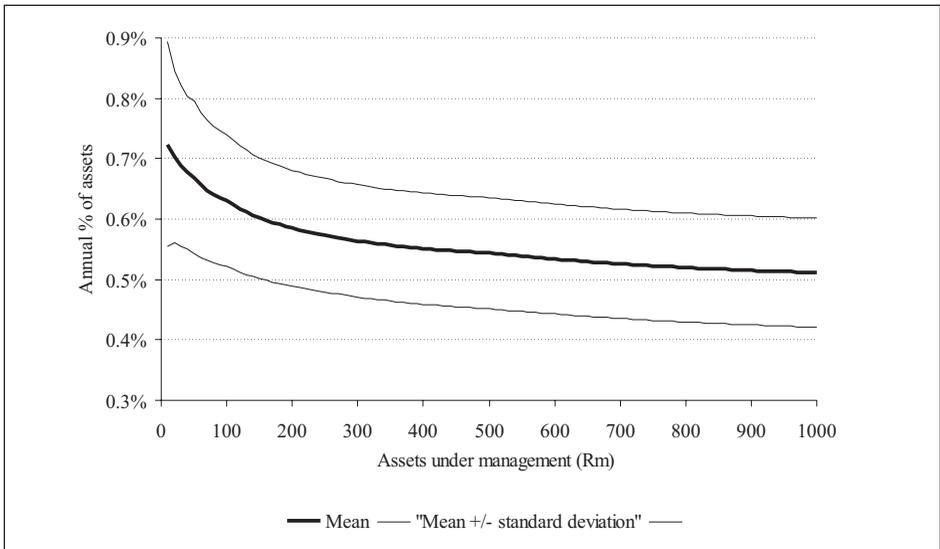
10 Sources: Alexander Forbes and author’s calculations.

large funds: the gap between the 25th percentile and the 10th percentile narrows with increasing fund size over the range R500m and R1bn of invested assets.

4.2.5.3 The effects of various factors on asset-management fees are illustrated in Table A1 in Appendix A, from which the following points may be noted:

- The difference between equally weighted portfolios and equally weighted managers is insignificant, except for small amounts invested.
- Analysis of the differences between pooled and segregated funds is confused by the fact that many managers offer only one portfolio at the same rates, or have not indicated whether a portfolio is intended for pooled or segregated administration. These portfolios appear in the analysis of both pooled and segregated funds. Despite the overlapping data sets, it is perhaps surprising that the difference between pooled and segregated portfolios is very small. Segregated portfolios are slightly more expensive for small funds. Recall that no attempt has been made to remove portfolios on the basis of minimum investment amount. Nevertheless, where portfolios are clearly identified as intended for segregated funds, charges are higher at the low end of the size scale. The reverse applies for larger funds, which is slightly anomalous, but may indicate an incentive to funds to move into segregated management arrangements.
- There are significant differences between the charges of multi-managers in comparison with the single managers, though these reduce as the size of the portfolio increases. The costs resulting from the additional layer should be offset to an extent by the ability of the multi-manager to negotiate reduced fees from the single managers in which it is

Figure 1. Investment charges: mean and standard deviations<sup>11</sup>



11 Source: Alexander Forbes and author's calculations.

invested. This analysis, however, has shown somewhat limited scope for cost reduction through economies of scale. In theory, the manager-selection process of the multi-manager also delivers higher investment returns.

4.2.5.4 A final point of analysis to note is that, where managers offer multiple portfolios that differ with respect to their asset mix, there are clear differences in the charges. This analysis has not been formally reported because the data are poor, but it is consistent with the patterns observed in the unit-trust analysis, where charges are strongly dependent on the mix of assets.

#### 4.2.6 ASSET MANAGEMENT: SUMMARY

4.2.6.1 The calculated mean institutional asset-management charge decreases with increasing fund assets, running from approximately 0,70% of assets per year down to around 0,50%. The standard deviation of charges is close to 0,10% of assets per year at all asset levels, so around two-thirds of portfolios have fees within 0,10% of the mean for that particular level of assets. Multi-managers' fees are higher than those of single managers by between approximately 0,10% and 0,15%.

4.2.6.2 Figure 1 shows that, for a self-administered fund of average size of approximately R150 million—the mean size of fund included in the Registrar's statistics on self-administered funds is R149,7 million<sup>12</sup>—asset management charges average around 0,60% and most funds of this size can expect to pay between 0,50% and 0,70% a year. Smaller funds might expect to pay up to 0,15 percentage points more and larger funds around 0,10 less.

4.2.6.3 These figures are considerably higher than the approximately 0,30% reported by the Registrar. Two possibilities exist:

- The Registrar's figures, which are quoted for the industry as a whole, are dominated by very large funds, whose ability to negotiate much lower fees brings down the average for the industry. This is possible, but the reference fund with approximately R150m in assets that has been used in this analysis is the same as the mean fund size in the Registrar's statistics.
- Figures provided to the Registrar significantly under-report investment costs. Scrutiny of fund accounts for the purposes of identifying administration costs (see section 4.2.7) suggests that a number of asset managers report investment performance net of charges to their clients rather than providing gross performance and actual charges. The result is that asset-management charges go unreported.

4.2.6.4 There appears to be evidence that the Registrar's figures are significantly affected by under-reporting. From the analysis in this section, it seems that asset-management charges are at least 0,50% of assets, and that allowance in addition for an advice component would suggest that the total provided by the Registrar, 0,30%, should be approximately doubled to 0,60% of assets, or R2bn. This equates to around 10% of annual contributions.

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12 Registrar of Pension Funds. *Forty-fourth Annual Report 2002*, Financial Services Board of South Africa: 3,10.

#### 4.2.7 ADMINISTRATION: DESCRIPTION OF PROCESS AND DATA

4.2.7.1 Fees for administration are typically charged on the basis of a percentage of the total pensionable salary of members, say 1%. In order to compare appropriately with the other products, more suitable measures such as percent-of-contributions or percent-of-assets are needed. The calculation of the former from quoted administration charges would require a contribution rate that, as a percentage of salary, is reasonably uniform across the industry, at least for those funds employing a particular administrator. It would be difficult to determine such a contribution rate.

4.2.7.2 Instead of attempting these calculations, the approach of sampling a number of retirement funds was used, as the direct approach requires no estimation or assumptions. The heterogeneity of the results, discussed below, confirms the difficulty of estimation using alternative approaches that depend on a number of assumptions to determine cost ratios.

4.2.7.3 Data were obtained from four consulting firms, covering 242 funds and a total of 127 450 members. More data would have been useful, but a number of consulting firms turned down requests for information because of lack of resources or concerns regarding the confidentiality of the data. The FSB was unable to assist and time involved approaching funds direct would not have produced the best outcome. Information was provided, direct from the fund accounts, on the quoted administration costs for the most recent reporting period. In some cases, actuarial costs had been included with administration costs, so for consistency these costs were included at all times.

4.2.7.4 Total costs in rand, costs per member and costs as a percentage of salary are not useful measures, particularly in the context of this broad-based study comparing different product types and different countries. Data requested, therefore, were the total contributions paid to the fund by employers and members, net of the contributions payable for risk benefits—to obtain consistency of approach across product types and countries—and the primary measure used was the ratio of total administration costs (including actuarial fees) to total contributions (net of risk-benefit costs). Measures of administration costs as a percentage of total payroll and of fund assets were also initially considered. These approaches were discarded not only because they provided less useful results, but because the ratios were significantly less stable across funds.

4.2.7.5 One of the disadvantages of measuring fees as a proportion of contributions is that obfuscation may result. If the fees were based on payroll, then we would not expect to find a charge ratio that is constant for varying contribution levels. A separate study of the relationship between the charge ratio and the level of contribution was made and the relationship found to be weak, affecting only the funds with very low rates of contribution.

4.2.7.6 The data obtained cannot be described as a sample representative of the industry as a whole and figures emerging should be regarded as anecdotal evidence rather than as an industry analysis. The results are nevertheless useful to compare with the Registrar's statistics on the industry as a whole. Reference may be made to sections 4.2.6 and 4.2.9, for example, for discussion of this comparison. In section 4.2.8, two areas are focused on: the average level of the charge ratio and the relationship of this ratio to the number of members in the fund.

#### 4.2.8 ADMINISTRATION: RESULTS

4.2.8.1 Table 11 summarises the results for funds from each of the data providers, focusing on the cost ratio rather than its relationship to other factors in the fund, like size of membership. In that table, the cost ratio used is the total reported administration cost, including actuarial fees, for the most recent reporting period, divided by the total employer and member contributions, net of risk-benefit contribution costs. Weighted ratios are weighted by membership. The number of funds with each provider is withheld for confidentiality of data sources. Funds with hybrid benefit structures have been excluded, as have funds with less than ten members.

Table 11: Retirement-fund charge ratios for participating providers of actuarial valuations<sup>13</sup>

Provider	DB or DC	Mean ratio (unweighted %)	Mean ratio (weighted %)	Percentiles (%)		
				75th	50th	25th
A	DC	8,9	5,1	10,8	8,2	4,8
B	DC	11,5	5,9	13,0	8,1	4,2
B	DB	16,0	12,3	20,3	11,0	6,7
C	DC	9,0	5,8	11,5	7,6	5,6
C	DB†	9,8	4,4	9,4	4,5	3,4

†The number of observations in this group is low and the results are unreliable.

4.2.8.2 The differences between the data sets are significant. This is explained partly by the funds' different characteristics—three sets of defined-contribution funds and two defined-benefit—but also by the membership. The funds from Provider A have a mean membership of just below 450. Provider B's funds have on average 672 members in the defined-contribution category and 194 in the defined-benefit category and the corresponding figures from Provider C are 263 and 212 respectively. It is inappropriate to read too much into the detail of the statistics quoted in Table 11.

4.2.8.3 The available data suggest median ratios of 8% of contributions for defined-contribution funds. The corresponding analysis for defined-benefit funds is unreliable because of a general shortage of data, the larger data set suggesting a median of around 11% and the smaller set 5%. In all cases, there are considerable ranges around the medians. These figures, with the exception of the small defined-benefit set, are significantly higher than the mean industry ratio for self-administered funds of 5,4%. This sample has smaller funds than the set of self-administered funds as a whole, which may help to explain the difference.

13 Source: Participating actuarial consultants and author's calculations.

4.2.8.4 The fourth provider provided data for a fairly large set of defined-contribution funds. The data item for risk-benefit premiums was missing and the data set could not be added to the other analysis. However, there is consistency with the results that would have emerged from the three other providers had no adjustment been made for their risk benefits. The average ratio for this set of defined-contribution funds lies within the bounds of the corresponding average ratio, after adjustment, from these three providers.

4.2.8.5 The figures summarised in the table also provide significant evidence of a size effect: the unweighted means are significantly higher than the medians, which are in turn much higher than the means weighted by membership. Except for the two defined-benefit groups, the weighted means are in line with the Registrar's figures.

4.2.8.6 Table 12 sets out the analysis of the effect of membership numbers on the cost ratios of the fund. In that table, the cost ratio used is the total reported administration cost, including actuarial fees, for the most recent reporting period, divided by the total employer and member contributions, net of risk-benefit contribution costs. 'Regression ratios' show the points on the regression line for each membership specified. The p-value provides a measure of the significance of the overall fit and of the slope t-statistic. As already shown in Table 11, the average costs in each group differ significantly. Table 12 also shows substantial differences across groups with respect to the statistical significance of the relationship between cost and membership. Again, over-analysis is inappropriate. In the case of the defined-benefit funds under providers B and C, there are likely to be a greater number of extraneous factors affecting the validity of the statistics. Some of the funds are likely to be closed to new membership, for example, distorting the analysis, and provider C's defined benefit set is unreliably small.

Table 12: Regression statistics for retirement-fund charge ratios versus the natural logarithm of the membership for participating providers of actuarial valuations<sup>14</sup>

Provider	DB or DC	R-square statistic	Slope co-efficient	P-value	Regression ratios (%)		
					500 members	100 members	40 members
A	DC	0,3945	-0,0234	0,0040	6,6	10,3	12,5
B	DC	0,0767	-0,0307	0,0223	9,6	14,6	17,4
B	DB	0,0428	-0,0246	0,2125	12,0	16,0	18,2
C	DC	0,2491	-0,0254	0,000	5,8	9,9	12,2
C	DB <sup>†</sup>	0,4882	-0,0650	0,0228	-0,1 <sup>†</sup>	10,4	16,4

<sup>†</sup>The number of observations in this group is low and the results are unreliable. The lowest cost ratio in the set is 2,1%.

14 Source: Participating actuarial consultants and author's calculations.

4.2.8.7 Overall, there is clear evidence of a negative relationship between fund size and administration charges as a proportion of contributions. This is certainly the case for the three samples of defined-contribution funds. These show not only a statistically significant relationship (p-value) but also a strong relationship (slope coefficient). The two defined-benefit groups give different results regarding the effect of size.

4.2.8.8 The strong size effect, if it exists across the industry, would be a high price to pay for working for a small firm. It also supports moves towards some form of aggregation of administration for smaller companies, as is the case under the so-called 'umbrella arrangements', for which the corresponding statistics are unavailable.

4.2.8.9 Information was also provided in respect of a much larger set of defined-contribution funds that are not subject to valuation. Because this forms a single sample, it is not reported in detail, both because it may not be representative of the industry and because it may divulge commercially sensitive information. A cursory description of some of the analysis is nevertheless useful.

4.2.8.10 This rich information set provides strong evidence of a size effect. There are sufficient data to break the funds into bands by fund membership with a large number of funds in each. With only one exception, the median charge ratio in each size band is lower than the corresponding ratio in the previous size band. These medians range from approximately 6,0% for funds of more than 1 000 members to over 22,0% for funds of 20 members or fewer. Regression analysis confirms a very clear size effect. (The p-value for the (negative) slope of the regression line is smaller than  $10^{-13}$ .) Figures are, on the whole, higher than those shown in the tables above. This may be due partly to the distortion of analysing a group with significantly lower average fund membership, but it provides the strongest evidence yet that the average of just over 5% suggested by the Registrar's figures is an understatement, even for large funds.

4.2.8.11 The difficulty of estimating total costs incurred by large employers is discussed above. The only way in which these costs might be estimated would be to request the information from employers themselves. Even then, the data may not be readily available, as costs related to the retirement fund are often wrapped into the human-resources budget. Furthermore, explicit costs would not cover the productivity cost of management time expended on the retirement fund. Rather than attempting to estimate these figures, they are excluded with the acknowledgement that total administration costs are understated, probably for all firms, and significantly for larger companies, because they undertake more in-house administration.

#### 4.2.9 ADMINISTRATION: CONCLUSIONS

4.2.9.1 Pulling together a variety of figures to produce firm conclusions is not easy and the approach adopted was to seek reasonable results rather than scientific conclusions. The Registrar's figures for 2002 give administration fees plus consulting charges equivalent to just less than 5,5% of total contributions, averaged for all self-administered funds. The available evidence suggests that, though some funds fall below this ratio, median figures are likely to be significantly higher than this, in the range of 8% to 11%, and that extreme figures are much higher than this, consistently above 20% for smaller funds.

4.2.9.2 It is suggested that a range of 6% to 12% of contributions captures an acceptable proportion of all funds, but ratios as low as 4% and as high as 22% provide reasonable estimates of some of the more extreme cases. Using the Registrar's figures for industry contributions and assets, these ratios are equivalent to a core range of 0,37% to 0,73% of assets and an outside range of 0,24% to 1,34%.

4.2.9.3 Charge ratios above 22% are frequent in the data sets available. Except for very small funds, however, these are likely to indicate unusual conditions. Since the main objective is to understand lifetime charges, unsustainable ratios need not be considered. The difficulty of assessing possible lifetime charges across different product channels and different types of measurement is discussed in section 4.5.

#### 4.2.10 OTHER COSTS

4.2.10.1 Fund-specific information covering the other costs incurred by retirement funds was not gathered. Funds are subject to a bewildering array of costs and fees, some of which are listed in Table 7 above. Expenses included in the item 'all other fees' range from FSB levies to trustee-training costs. According to the Registrar of Pension Funds<sup>15</sup>, other costs over the course of 2002 averaged over all available self-administered funds totalled R620 million, equivalent to 2,8% of contributions or 0,171% of assets.

4.2.10.2 As both administration and asset-management charges appear to have been understated in the Registrar's report, it is tempting to modify in a similar manner the figures covering other elements of retirement-fund costs. As there is no clear basis on which to do so, the figures provided by the Registrar have been used, along with the caution that they may understate the actual position.

#### 4.2.11 SUMMARY OF ANALYSIS

4.2.11.1 Retirement-fund costs are extremely varied. There is a clear relationship between fund size and cost incurred. But there is also a considerable element of variation apart from the size relationship. In the consolidation of figures that follows, the size effect is captured roughly in the overall figures but there is no attempt to include all funds in some type of spread effect. This is broadly consistent with the reports of international researchers, which comment on mean and range without trying to capture the full diversity of cases.

4.2.11.2 The Registrar of Pension Funds<sup>16</sup> reports total expenses across the industry of self-administered funds equivalent to 13% of contributions or 0,80% of assets. There appears to be substantial evidence that this underestimates the true costs to retirement funds. As set out in these pages, the available figures suggest the following conclusions.

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15 Registrar of Pension Funds. *Forty-fourth Annual Report 2002*, Financial Services Board of South Africa.

16 Registrar of Pension Funds. *Forty-fourth Annual Report 2002*, Financial Services Board of South Africa.

- Asset-management fees average around 0,60% of assets for medium-sized funds, approximately 0,50% for large funds and 0,75% for small funds. An additional 0,10% either side of these figures includes two thirds of funds, but excludes outliers.
- For most funds the costs of administration and consulting are between 6% and 12% of contributions or, if a wider range of funds is included, between 4% and 22%.
- All other costs and fees together average around 2,8% of contributions.

4.2.11.3 Combining these figures (and converting ratios to ensure consistency of measurement) gives a core range of between 17,0% and 27,1% of contributions, equivalent to a range of 1,04% to 1,65% of assets per year. An outside range of between 13,4% and 38,7% of contributions is sufficient to encompass mean costs within any subdivision by size, but not outliers. As a percentage of assets, these figures are equivalent to 0,81% to 2,36% of assets per year.

4.2.11.4 The outside ranges are wide. This reflects the reality of the data observed and is by no means an exaggerated estimate of charge ratios currently being experienced by funds. But for purposes of comparison with international benchmarks, this range is too wide and it is probably not sustainable over long periods of time, particularly at the high end. For international comparison, the narrow range provides a more sensible and meaningful summary of the position among retirement funds at present.

### 4.3 INDIVIDUAL POLICIES

“... it is not administration capacity that will drive consolidation in life assurance, an industry relatively price insensitive for many of its client offerings. Value is added as much through investment performance and effective client advice as it is through price competitiveness.”

—Garth Griffin, actuary, Sage Group CEO, *Business Day*, 13 July 2004

#### 4.3.1 INTRODUCTION

4.3.1.1 According to conventional business wisdom, life-assurance policyholders are not particularly sensitive to cost. This makes analysis of charges in this industry sector perhaps more important than in others.

4.3.1.2 Individual policies typically have a more complex set of charges than either occupational retirement funds or unit trusts, which makes computation more involved. On the other hand, they best lend themselves to the analysis of long-term charges because they are designed to be long-term in nature.

4.3.1.3 In contrast, retirement funds give at best a snapshot of the current environment, leaving the task of extrapolating across an entire working life. Unit-trust contracts provide a clear set of charges, but investor behaviour is seldom constant over a long period of time: though what is measured is clear, what is experienced is not. Life policies, particularly retirement-annuity contracts, are designed to be maintained for a long time and life offices compel policyholders to recognise the long-term nature of the agreement.

### 4.3.2 METHODOLOGY

4.3.2.1 The model described in section 2 is well suited to analysis of total fees over the contract term and to conversion to an appropriate measure. As described in that section, the actual effect of all charges was projected to the maturity date and the corresponding single-figure deduction giving the same overall effect was calculated.

4.3.2.2 The analysis was carried out for two different contribution levels and for policy terms of 10, 20, 30 and 40 years. In each instance both reductions in yield and overall charge ratios were calculated. The focus in the discussion is on the longer-term results because they allow easier comparison with international benchmarks and because, ideally, saving for retirement occurs over a long period of time. Full results are included in Appendix B.

4.3.2.3 An attempt has also been made to break down overall charge ratios into the components of commission, asset management and administration, where these data are available. Firm-by-firm results are discussed in Appendix C.

### 4.3.3 ASSUMPTIONS

4.3.3.1 The financial assumptions are set out in section 2 and are unchanged in this analysis: annual investment returns of 10% and annual salary growth of 7%. The salary growth is used to set increments to contribution levels, which take place monthly at an effective rate of 7% annually. This is also used to set the increases to fixed policy charges, quoted in rands per month.

4.3.3.2 Some may suggest that this is a penal approach to fixed-cost inflation, which would benefit from reductions to technology costs. Experience suggests that this optimistic viewpoint is fallacious and that few industries, least of all the life industry, have seen significant reduction in unit costs due to technology. Capital investment costs still affect policy fees. Wage levels are likely to continue to be key drivers of administration costs for some time to come. The effect on overall results of the slight difference between salary and cost inflation is extremely small.

4.3.3.3 The two model policyholders are assumed to be earning annual salaries of R24 000 and R120 000 respectively at the start date of the calculation. They are assumed to be contributing 10% of gross income to their retirement savings, equating to monthly premiums of R200 and R1 000 respectively. Average policy-size figures are competitively sensitive and have not been provided by all participating offices. However, one firm provided average policy size for the retirement annuity and equivalent individual-life provident fund. The average contribution in each case lies within the range of R200 to R1 000 per month without approaching either extreme too closely, supporting the choice of model points.

### 4.3.4 DATA SET AND RELIABILITY OF DATA

4.3.4.1 A retirement annuity is an endowment policy attracting tax relief during the policy term and maturing at a retirement date chosen by the policyholder. A number of firms also make available what they call 'provident fund products', which are designed for small groups or individuals as an alternative to occupational retirement funds and

intended to be available at lower charge. The results show that they seem to achieve this objective.

4.3.4.2 Full charging detail from four firms covering six policies was obtained, including retirement annuities and individual-life provident funds. This is a small number of contracts, but few firms focus on long-term savings arrangements and two firms declined to participate in the study. The sample includes the largest firms in the country and a significant proportion of the total individual-life retirement savings market, some suggest as high as 80%. As discussed below, these six contracts show a number of characteristic differences and a significant range of overall charges.

4.3.4.3 Commission scales are fairly complex. A model provided by one of the firms was used to convert commission to ongoing charges. Commission is typically paid as a percentage of the first year's premium, the longer the term the higher the percentage, and at a reduced rate on the second year's premium. Total commission costs are then spread over the term of the policy, using an appropriate factor to reflect the time value of money, and are expressed as a percentage of each contribution. Assumptions regarding premium growth may be inconsistent between the model provided and the calculations carried out for this research, but the effect of this is very small. For the longer-term policies in particular, commission does not contribute significantly to total policy costs. The equivalent percentage depends on the term of the policy, making calculation a little more laborious. One of the firms provided a spreadsheet of the effects of commission on policy and premium over the policy term, rather than setting out the commission formula itself.

4.3.4.4 Other fee types analysed, though they are not all charged for all products, include other up-front charges, policy fees, annual management charges and, finally, service fees.

4.3.4.5 Up-front charges take the form of an explicit bid-offer spread or an administration charge expressed as a proportion or multiple of the commission cost. In some cases the up-front charges are expressed as an allocation percentage that already takes commission into account. The allocation percentage typically lies between 95% and 100% and reflects the proportion of each contribution actually used to benefit the policyholder, the balance going to policy costs. One provider loads all premium-related costs into the first year, giving a significantly different results signature.

4.3.4.6 Policy fees are small rand amounts charged monthly or yearly, assumed to increase over the term of the policy. One office also charges a fixed rand amount up front, which obviously affects low-premium policies more than high-premium policies.

4.3.4.7 Annual asset-management charges are levied as a percentage of the value of assets and depend on the type of investment selected by the policyholder. These charges have been analysed across their range and at the mid-point. This complicates analysis but provides a more complete picture of the range of charges to which individual retirement savers are exposed. The guarantee charges associated with so-called 'smoothed-bonus' arrangements have not been included because this charge is related to a particular type of arrangement and is a type of insurance premium on the investment choice rather than an administration charge. These are related to the with-profit

arrangements of the past, but tend to track the market more closely, providing smoothed investment returns rather than returns reflecting a share of the office's profit. They are provided typically at an additional annual charge for the call on capital of a little over 1% of assets..

4.3.4.8 Service fees are used typically to cover additional sundry costs and are also expressed as a percentage of the value of assets.

4.3.4.9 Providers usually also charge for investment switches, for policy changes and for early termination, but these have been ignored under the simplifying assumption that saving is uninterrupted over the period until retirement.

#### 4.3.5 EXAMPLE CALCULATION

4.3.5.1 A monthly starting contribution of R200, growing at 7% a year and earning 10% a year would compound in thirty years to a nominal maturity value of R848 032.

4.3.5.2 This projected maturity value is reduced to R631 956 by up-front charges of 3% of each contribution, a monthly policy fee of R7 growing at 7% a year and annual management charges of 1,5% of the value of assets. This is a reduction of 25,5% on the charge-free maturity value. This is the charge ratio. The equivalent reduction in yield for this set of assumptions and policy term is 1,96%. This is the rate that, if deducted from the assumed annual investment return of 10%, would result in the same projected maturity value in the absence of all other charges.

4.3.5.3 The reduction in yield of 1,96% in this example is clearly dominated by the annual management charge of 1,5%, leaving under 0,5% for all other charges.

4.3.5.4 Results are discussed in two stages: the overall level and range of charges for long-term policies in section 4.3.6 and, in Appendix B, more detailed analysis, showing how different charging structures affect policies of various terms.

#### 4.3.6 DISCUSSION OF RESULTS: OVERALL CHARGE LEVELS

4.3.6.1 Table 13 shows the reduction in yield and charge ratio for a long-term saving in each policy, for two levels of saving. In that table an annual rate of return on assets of 10% and an annual rate of contribution growth of 7% have been assumed. More detailed results are available in Tables B1, B2 and B3 in Appendix B.

4.3.6.2 Scrutiny of these figures shows a number of interesting results:

- Charges are high. The mean unweighted reduction in yield across all six contracts for policies with contributions starting at R200 per month is 2,43% a year and the equivalent charge ratio is 38,6%. This means that, over a 40-year period, nearly two-fifths of the policy value is lost to charges.
- Charges are higher for small policies, owing to the fixed component of the policy fee. The equivalent average reduction in yield for policies starting at R1 000 a month is 2,24% and the charge ratio is a little above 36%. The differences between the corresponding ratios are not substantial, indicating that fixed fees form a relatively small part of the total policy charge. All contracts show this effect to some extent, depending on the relationship between fixed and variable costs. The minimum-cost

choice amongst the retirement annuities of firms A, C and D, for example, depends on the size of the contribution.

- The provident funds are cheaper than the retirement annuities. The firms that offer both retirement annuities and provident funds have succeeded in providing a cheaper alternative to the retirement annuity, though the difference is considerably greater in the case of firm A. As a fee breakdown has not been provided, it is not possible to comment on how the life offices have reduced these charges. Administration expenses and asset-management costs may be lower if policy options are more limited. Commission scales may be lower for these products. The average cost for the two provident funds is also lower than the corresponding average for the four retirement annuities.
- Three of the retirement annuities have very similar charges. Firm B offers by far the best value for money in a retirement annuity. The other three retirement annuities are remarkably close in their charging levels, despite having very different charging structures. Differences are greater at shorter policy terms, as is evident from the detailed tables in Appendix B.
- The range of costs is wide. The difference between the cheapest and the most expensive might be regarded as unacceptably large, particularly as the effect of charges is unlikely to loom large in the mind of most prospective policyholders. On a reduction-in-yield basis, the most expensive contract is nearly twice as costly as the cheapest.

Table 13: South African life policy cost ratios for 40-year saving period at average asset management fee<sup>17</sup>

	Reduction in yield %	Charge ratio %
R200 starting premium:		
Firm A retirement annuity	2,82	43,38
Firm A provident fund	1,49	26,58
Firm B retirement annuity	2,01	33,78
Firm C retirement annuity	2,89	44,13
Firm D retirement annuity	2,81	43,30
Firm D provident fund	2,55	40,37
R1 000 starting premium:		
Firm A retirement annuity	2,60	41,01
Firm A provident fund	1,37	24,76
Firm B retirement annuity	1,79	30,83
Firm C retirement annuity	2,64	41,45
Firm D retirement annuity	2,67	41,74
Firm D provident fund	2,40	38,65

17 Sources: Participating life offices and author's calculations.

4.3.6.3 More detailed analysis has been carried out on the mix of charges for each manager. This is tabulated and discussed in Appendices B and C. The analysis shows that:

- commission is not a significant charge to the policyholder and does not explain the difference between life-assurer and unit-trust charges; and
- the pattern of charges across different types is not consistent between providers, indicating that, while their claim to a competitive environment may be true in total, charges are not closely matched to the pattern of costs actually incurred by the life offices.

#### 4.3.7 SENSITIVITY TESTING

4.3.7.1 Changes to the underlying financial assumptions produce only small changes in the results, as demonstrated by the scenarios described below. Firm A's retirement annuity starting at a monthly premium of R200 has an annual reduction in yield of 2,82% for a 40-year policy term under the standard assumptions and average asset-management charge. The corresponding charge ratio is 43,4%.

4.3.7.2 An increase to the assumed investment return from 10% to 11% a year results in a reduction in yield of 2,79%, a change of 0,03%. The charge ratio increases to 44,5%.

4.3.7.3 Reducing annual premium increases from 7% to 5% a year gives a reduction in yield of 2,85% and a charge ratio of 47,1%. These are not substantial increases but hint at the effect on the ratios for policyholders that choose not to increase the premium paid over the lifetime of the policy.

4.3.7.4 Reducing the rate of inflation of fixed charges from 7% to 5% a year results in a reduction in yield of 2,75% and a charge ratio of 42,6%.

4.3.7.5 These sensitivity tests result in changes of similar magnitudes in all the policies included in the sample. There is little to suggest that the analysis could be invalidated by the financial assumptions used.

#### 4.3.8 SUMMARY

4.3.8.1 The life product of today offers flexibility of choice with respect to investment of accumulating assets and to the rate of saving. It allows pauses in saving, the injection of lump sums and the addition of various forms of protection to savings. In many ways it is a flexible and convenient way to save for retirement.

4.3.8.2 However, this analysis suggests that it is also an expensive way to save for retirement. Taking all the results into account, a broad range of 1,5% to 2,8% annual reduction in yield, equivalent to a cost ratio of 26,7% to 43,2%, would cover most policies.

4.3.8.3 Over a long and consistent savings period, a significant proportion of the total benefit is likely to be lost to a variety of charges. This is a high price to pay.

4.3.8.4 Except in the case of the policy paying commission through the term of the contract (see Table B4 in Appendix B and paragraph C.2.1 of Appendix C), direct intermediary remuneration does not form a significant proportion of total charges.

4.3.8.5 The main surprise emerging from this analysis is the magnitude of asset-based charges. Over a long period of saving, these charges seem high, perhaps unjustifiably so. As mentioned before, these should be referred to as annual asset-based charges, for while they are termed asset-management charges and vary according to the portfolio selected, the 1% to 2% deduction has little to do with the cost of asset management. The fee that life offices pay their asset managers is a small fraction of this charge. The so-called ‘asset management charge’ appears to be a convenient way to recoup a variety of costs. At least, in absolute rand terms, it effects the wealthy more than the poor.

4.3.8.6 A valid concern is that the main cause of the magnitude of these charges is a lack of transparency and a lack of competition. While the link between transparency and cost is a field often studied, though not always with conclusive results, it is difficult to argue against the benefit of clear information to the consumer about the charges levied.

#### 4.4 UNIT TRUSTS

“South African unit trusts are likely to play a leading role in retirement funding, says Di Turpin, executive vice-chairman of the Association of Collective Investments. ... ‘Because of their simplicity, transparency, flexibility and **cost effectiveness**, unit trusts are being used increasingly as a fundamental building block of virtually any investment and retirement vehicle today.’ ”

—*Business Day* (26 Nov 2003): 20, emphasis added

4.4.1 A unit trust, like the United States equivalent, the mutual fund, is owned by its investors. Investors are allocated units in return for contributions. Payouts to investors require the realisation of units and the amount paid out depends on the number of units held and the corresponding price of those units. The unit price in turn reflects the value of the underlying asset portfolio, fluctuating with investment performance. A firm is paid by the unit-holder to administer the account and invest the assets.

#### 4.4.2 TYPES OF CHARGES

4.4.2.1 Unit-trust charges are relatively straightforward, consisting only of

- up-front fees, charged as a percentage of each contribution or unit purchase; and
- annual management or service fees, charged as a percentage of the value of the accumulated fund of the unit holder.

4.4.2.2 No fixed-rand deductions are made. Fixed costs, where they exist, affect low-contribution contracts more than high-contribution contracts. This means that there is no need to consider the sensitivity of results to the size of the contribution. It also means that economies of scale are not available to savers putting away large amounts to their unit-trust retirement-saving arrangement.

4.4.2.3 It is difficult to build a complete understanding of unit trust charges, because implicit charges should also be included. Trading by the asset manager results in costs. These are not translated into explicit fees, but the costs are incurred and absorbed by the fund manager, reflected in the unit price, and therefore borne by the unit-holder. As stated by James et al. (op. cit.: 13,14):

“Brokerage fees paid by the fund for securities transactions are also excluded from the expense ratio but are costs to shareholders, netted out of the fund’s reported gross returns.”

Unit holders are here referred to as ‘shareholders’ because they are the owners of the mutual fund.

4.4.2.4 Section 3.2.3 demonstrates the effect of these additional costs. In that section the research of James et al. (op. cit.) is quoted stating an average reported expense ratio of 1,28% of assets and total investor costs of 1,85%. The difference between these figures corresponds to the implicit charges mentioned in this discussion. Similar data are very difficult to obtain in South Africa and would depend on detailed analysis of the trading statements of each asset manager. Fitzrovia carries out this service in the UK<sup>18</sup>. Virtually all their data capturing resources are occupied with the analysis of financial statements necessary to understand implicit costs.

4.4.2.5 For these reasons, no attempt has been made to include implicit costs in this analysis of the unit-trust industry. Implicit costs are also not included in the international research described in section 3. Furthermore, it is reasonable to expect similar implicit costs to affect the investment management of assets in the retirement-fund and individual-life industries. The fairest and most consistent approach is to exclude implicit costs in all channels.

4.4.2.6 Two types of up-front charges need to be considered:

- initial charges, which are typically used to cover bid–offer spread, commission and up-front administration charges; and
- a so-called ‘compulsory charge’, which includes stamp duty, marketable securities tax, since replaced by uncertified securities tax, and broker costs.

4.4.2.7 It should be noted that this discussion has been superseded by the passing of the Collective Investment Schemes Control Act (Act no. 45 of 2002), which does away with the compulsory charge. As data are not yet available concerning the new set of charges, the analysis in this paper necessarily includes this type of charge.

4.4.2.8 Initial charges range from zero, for the majority of money-market funds, through 1,14% (one percent plus VAT at 14%) for most bond funds to usually 5,7% (five percent plus VAT) for equity or balanced funds.

4.4.2.9 The compulsory charge is typically 0,7% and never higher, though a number of managers appear not to charge it at all.

4.4.2.10 The treatment of the so-called ‘funds of funds’, which invest not in marketable assets but in other unit trusts, is not very clear. The majority of these funds quote no compulsory charge, which is correct because the charge is incurred by the funds in which they invest, but it does not mean that the investor escapes the effect. It has been assumed, after discussion with industry players, that the fees provided correctly reflect the charges incurred by unit-holders in these funds, regardless of the complexity of underlying structure. The data were used as provided, but it should again be noted that this covers explicit charges only. If analysis of implicit charges is difficult for most unit

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18 See [www.fitzrovia.com](http://www.fitzrovia.com) for more detail.

trusts, it is probably impossible in the case of funds of funds, whose unit-holders incur the hidden costs of the underlying managers as reflected in the unit prices of these managers, with a changing mix of managers; but there is no reason to expect systematically higher implicit charges from fund-of-fund investments than from investments with fund managers trading direct in the market. The possibility of higher explicit charges as a result of the additional layer is often offset by the negotiating power of the fund-of-funds house.

4.4.2.11 Annual management charges and service fees range from around 0,4% for money-market funds, through 1,14% to 1,71% for most equity and balanced funds, to 2% and over for some specialist funds, particularly funds specialising in international holdings.

#### 4.4.3 SOURCE AND RELIABILITY OF DATA

4.4.3.1 Data were provided by I-Net Bridge in association with MoneyMate and comprise the most recent information available before the passing of the Collective Investment Schemes Control Act. They cover the period 2002 to 2003.

4.4.3.2 The source must be regarded as one of the most reliable in South Africa, though it is certainly not the only one. I-Net Bridge is a well-known provider of business information in South Africa. MoneyMate is an international leader in the collection and provision of mutual-fund data, based in Ireland and covering the mutual funds of most of Europe, in addition to those in South Africa.

4.4.3.3 The data themselves were provided on the fact sheets completed by the managers. Lapedus<sup>19</sup> states that there are 474 funds in the industry as a whole. Of the 457 funds on the MoneyMate database, 369 are included in the charges database. Thirty-four of these were discarded from the analysis because their charges were expressed as a range, as a weighted average of domestic and international holdings, or as performance-based charges, or because of initial charges that depended on the size of the investment, or in a few cases because of zero charges throughout. This leaves 335 funds with complete and reliable initial and annual charges.

#### 4.4.4 THE RELEVANCE OF THE DATA IN THE NEW UNIT-TRUST ENVIRONMENT

4.4.4.1 Is it worth analysing a set of charges that no longer exists? The compulsory fee has been modified and the whole charging basis has been de-regulated so analysis of past charges may not be relevant to an understanding of future costs.

4.4.4.2 It is an imperfect situation, but it is probably fair to assume that there is little change to the costs incurred by the managers and that administrators and fund managers are likely still to charge on a basis that covers costs and allows as much profit as possible. Assuming that the new system encourages a more transparent comparison of costs (and there are indications that this is indeed the case as the industry looks to separate performance and charges in the figures provided to investors), there may be some pressure to reduce charges, but it is difficult to estimate this change. This would partly be offset in any case by the industry costs of transition to the new system.

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19 *Business Day*, 26 Nov 2003.

4.4.4.3 Imperfect as it may be, for the purposes of this study, analysis of charges in the recent past is the best available manner in which the effect of potential future charges may be understood.

#### 4.4.5 THE RELEVANCE OF THE DATA TO RETIREMENT SAVING

4.4.5.1 Are the data set helpful in understanding the costs of saving for retirement? Funds attracting tax relief for retirement must be identified as such. They are effectively separate products.

4.4.5.2 Only a few product providers give access to unit trusts in the retirement annuity wrapper necessary to attract tax relief. Rather than attempting to identify these retirement-annuity products, all unit trusts were included. This makes the simplifying assumption that there is no reason to expect the charging profile of retirement unit trusts to be systematically different to that of other unit trusts.

4.4.5.3 Should we then exclude money-market and bond funds? One argument goes that individuals saving for retirement are more likely to appreciate the long-term potential of pure-equity or equity-rich funds. The counter to this is that individuals of all ages are saving for retirement and that there may be many who prefer the low-risk money-market and bond funds to protect their capital as their retirement dates approach. These funds were included in this research.

Table 14: Investment categorisation of unit trusts analysed<sup>20</sup>

Category	No. of funds %
Cash	9,9
Bonds	10,7
Balanced	15,2
Equity	42,7
International	10,1
Other	11,3

4.4.5.4 Another way to determine whether funds might need to be excluded is to analyse the asset mix implied by the portfolio of all funds. As clearly as possible from the names of funds their investment leaning was identified and Table 14 shows the mix of funds analysed, unweighted for fund size. The ‘other’ category includes a variety of funds whose primary asset allocation was not clear from the name or did not fit well into the other asset classes: absolute return funds, for example. The implied asset mix is perhaps a little heavily weighted towards equities and slightly under-weighted on bonds for the purposes of this study, though other categories also contribute some fixed-interest weighting. Charge ratios and reductions in yield are shown in the results of this research

20 Sources: I-Net Bridge in association with MoneyMate, and author’s calculations.

separately for each asset category. Overall, the mix is acceptable for the purposes of comparing charges on an unweighted basis. In conclusion, all funds available and with clean data were included, but without weighting for assets under management.

#### 4.4.6 ANALYSIS

4.4.6.1 For each of the 335 funds available for analysis, the model described in section 2.5 was used to determine the equivalent reduction in yield and charge ratio under the standard assumptions (annual return on investments 10% and annual growth in contributions 7%).

4.4.6.2 These measures have been calculated for investment terms of 10 years, 20 years, 30 years and 40 years and a full set of results for each category of funds is provided in Tables D1 and D2 in Appendix D.

#### 4.4.7 DISCUSSION OF RESULTS

4.4.7.1 Table 15 provides the reduction in yield and charge ratio for each category over a 40-year investment period. (Again, the assumed annual rate of return on assets is 10% and the annual rate of growth of contribution is 7%.) This period is unrealistically long for a savings vehicle as flexible as the unit trust, but it provides a basis for comparison with other products and with the results of international studies. Corresponding figures for other investment periods are shown in Appendix D. The sensitivity of the results to changes in assumptions is discussed briefly in the next section.

4.4.7.2 Analysis shows an intuitive relationship between the charges for the various classes of assets, despite the slightly unscientific manner in which funds were allocated to classes. Cash funds are cheapest, followed by bond funds and those that describe themselves as 'income funds'. Balanced, equity, international and all other funds are fairly closely bunched, with the exception of funds that could be identified as passively managed, which have overall charge levels closer to the cash and bond funds. Closer analysis of the passively managed funds shows that they are more expensive than bond funds at short terms and cheaper at long terms. This reflects their higher average initial charge than the bond funds and lower average annual charge. The trends are evident in Table D1 in Appendix D.

4.4.7.3 The average reduction in yield without weighting for assets under management is 1,58% a year, equivalent to a charge ratio of just under 27,5%. Standard deviations across all unit trusts are 0,37% and 5,1% for the reduction in yield and charge ratios respectively.

4.4.7.4 Comparable figures for the standard deviation from international studies are not available, but this should be regarded as a fairly significant spread, suggesting that only two-thirds of funds have reductions in yields over the 40-year term inside the range 1,21% to 1,95%, though some of this variation is due to differences in asset types. Table D2 in Appendix D shows that, even within each asset class, the spread is significant, in most cases only slightly narrower than the overall spread.

Table 15. South African mean unit-trust cost ratios for a 40-year saving period<sup>21</sup>

Category	Cost ratios (standard deviation in brackets—%)	
	Reduction in yield %	Charge ratio %
Cash	0,74 (0,37)	14,14 (6,22)
Income	0,93 (0,27)	17,70 (4,51)
Bonds	0,97 (0,28)	18,25 (5,03)
Balanced	1,73 (0,28)	29,92 (3,98)
Equity	1,80 (0,34)	30,83 (4,56)
Equity passive	0,94 (0,27)	17,64 (4,60)
International	1,87 (0,42)	31,65 (5,64)
Other	1,77 (0,31)	30,42 (4,41)
All funds	1,58 (0,37)	27,43 (5,11)

#### 4.4.8 SENSITIVITY TESTING

4.4.8.1 The discussion in section 2.6 points out that the results of the model are fairly insensitive to changes in the underlying financial assumptions. This is relevant to the analysis presented in this section, in which the same underlying investment return for all asset classes has been assumed, unrealistically.

4.4.8.2 The use of a return on cash, for example, of 7% a year rather than 10% gives rise to only small changes in results. The reduction in yield increases by just under 0,01 percentage points and the charge ratio experiences a somewhat more significant drop: around 1,5 percentage points.

4.4.8.3 Equivalently, assuming a return on equities of 11% a year rather than 10% would give a small decrease (just over 0,01 percentage points) in the reduction in yield and a small decrease (approximately 0,9 percentage points) in the charge ratio. (Rather than recalculating values for the entire set of funds, in each case the fund most closely matching the results of the entire asset class was selected and the effect of changes in assumptions on the charge figures for that fund was tested.)

4.4.8.4 These figures suggest that it would be unnecessarily complex to carry out the analysis using different assumptions for each asset class, as alternative assumptions result in only very small changes to the reduction in yield.

#### 4.4.9 CONCLUDING COMMENTS

4.4.9.1 This analysis suggests that the unit-trust industry offers fair value for money to retirement savers. Some commentators have suggested that retirement-annuity unit trusts have an unfair advantage because they are not actively marketed and cannot

<sup>21</sup> Sources: I-Net Bridge in association with MoneyMate, and author's calculations.

afford to pay commission. While these are valid points, the objective of this research was primarily to establish the cost to the consumer.

4.4.9.2 In summary of the results discussed above, a range of 1,20% to 1,95% in the reduction in yield captures a substantial proportion of South African unit-trust funds and there is little reason to suggest that funds earmarked for retirement are significantly cheaper or more expensive. These figures are equivalent to charge ratios, charges divided by contributions, of 22,3% to 32,5%.

4.4.9.3 Charging levels appear to compare reasonably well with those in the USA and very well to those in other developing countries. Specialist equity funds are more expensive, as expected, but not by significant margins, with a range for local equity funds of 1,45% to 2,15% and for international funds of 1,45% to 2,30% likely to include more than two-thirds of these funds.

#### 4.5 COMPARING SOUTH AFRICAN ALTERNATIVES

4.5.1 Table 16 summarises the discussion of the previous three sections. The figures in that table are not designed to be directly comparable. Definitions of ranges, in particular, have been determined in different ways and are intended to give a reasonable impression of the spread of results. Very broadly, retirement funds provide the cheapest means of saving for retirement, followed by unit trust arrangements, though a significant proportion of retirement funds provide saving opportunities to their members at greater overall cost than the unit trust alternative. Individual policies appear to be the most expensive, but even here a blanket statement is dangerous and misleading.

Table 16. Summary comparison of South African savings channels<sup>22</sup>

Channel	Charge ratio %		Reduction in yield %	
	Low	High	Low	High
Retirement funds (narrow range)	17,0	27,1	1,04	1,65
Retirement funds (wide range)	13,4	38,4	0,81	2,36
Individual policies	26,7	43,2	1,50	2,80
Unit trust products	22,3	32,5	1,20	1,95

4.5.2 There are a number of reasons why these figures should not be regarded as directly comparable, covering methodology, data, the source of payment and the flexibility of the offering. These are discussed in the paragraphs that follow.

4.5.3 Different approaches were used to arrive at these conclusions. The individual-policy and unit-trust information uses a model with a number of assumptions that tries to replicate a lifetime savings pattern. Results here are based on a policy term of 40 years, which is perhaps unrealistically long. As can be seen in section 4.3 and

22 Various sources as stated in sections 4.2, 4.3 and 4.4.

Appendix B, the use of a shorter term results in a lower charge ratio, but a higher annual reduction in yield. For life policies, the corresponding figures for a 30-year term are charge ratios of 21,7% to 35,8% and annual reductions in yield of 1,62% to 3,20%. The ranking of the three savings channels by costs remains unchanged.

4.5.4 The retirement-fund approach, in contrast, is a snapshot of today's circumstances and results are particularly dependent on the appropriateness of the denominators of each ratio: contributions and assets respectively. The relationship between the charge ratio and the annual reduction in yield is reasonable, lying somewhere between the corresponding modelled ratios for a 30-year and a 40-year term. This is more by accident than design: while the assets in the retirement-fund industry have been built up by active members with well under 30 years of service, they also include funds held for pensioners who contributed for a full career.

4.5.5 Different data sets were employed. The unit-trust analysis, for example, can be regarded as virtually complete: nearly all products were included in the information, and the data are accurate and reliable. In the cases of both retirement funds and individual policies, a variety of data sources must be relied upon and the analysis must be based on incomplete data.

4.5.6 The employer often covers some or all of the costs of administration of a retirement fund. This is very difficult to factor in explicitly and these costs were estimated on the assumption that they form part of the decision of the employer to make available this savings option to its employees.

4.5.7 It must be acknowledged that a comparison across channels is inherently unfair. The products are very different in what they offer. Retirement funds benefit from economies of scale, but generally offer less flexibility and choice to their members than unit trusts and life policies. Unit trusts offer investment and timing flexibility but no additional benefits. Life policies typically offer a wide range of additional insurance products and significant flexibility of contribution level. Also, these products are (or should be) sold under the umbrella of sound, holistic advice in the best interests of the policyholder, the cost of which is covered by the mechanism of commission.

4.5.8 Despite these concerns, useful conclusions can be drawn. First, charge information is very difficult to obtain and accurate comparison of options within and across channels is almost out of reach. The unit-trust industry stands apart from this generalisation. Secondly, the cost differences between channels appear to be substantial, occupational pension funds being on average the cheapest, followed by the retail options of unit trusts and then individual-life policies. Thirdly, within each savings channel, there is substantial variation in charges. All consumers and trustees should be made more aware of these variations, enabling them to make decisions that are more informed. Charges are not automatically wrong, but the corresponding service must be appropriate to the needs of the customer.

## 4.6 COMPARISON WITH INTERNATIONAL BENCHMARKS

### 4.6.1 INTRODUCTORY COMMENTS

#### 4.6.1.1 The South African system is almost unique in that:

- social-security benefits are widespread and effective but pitched at a level to stave off poverty rather than to provide an adequate level of income in old age; and
- the extensive voluntary retirement system covers only the employed and leaves significant scope for poverty in retirement for the working poor by not requiring minimum levels of saving and not preventing workers from accessing pension savings prior to their retirement.

4.6.1.2 Only the old-age system in the Czech Republic, with an absent second pillar of mandatory retirement saving, is directly comparable to the South African environment.

4.6.1.3 For the purposes of international comparison, attention is focused on the retirement-fund sector, which is most closely aligned with the largely mandatory systems described in the literature review. Consideration is given in a subsequent section to the cost-effectiveness of South African life-insurance and unit-trust products against available international benchmarks.

### 4.6.2 RETIREMENT FUNDS

4.6.2.1 Tables 6 and 16 above provide the information required to compare the South African retirement system with those in other countries. As not all comparisons to the statistics from other countries are equally valid, the South African analysis is discussed within the international context from a number of perspectives.

4.6.2.2 South Africa's retirement funds compare poorly with mandatory systems in other countries, being less costly only than Croatia's system and Australia's master trust, which provides a particularly flexible offering to a narrow part of the market. The systems of some other countries are significantly cheaper.

4.6.2.3 The comparison needs to be made with care, however, because the environments differ. For the following reasons, mandatory systems might be expected to provide savings at lower cost:

- Mandatory systems have a far larger ready market and should be able to generate significant economies of scale.
- Mandatory systems are set up following an extensive review of the available options and are regarded as being the most efficient manner in which to stimulate retirement saving, and one assumes therefore that they are expected to be reasonably cost-effective.
- Many of the mandatory systems include a mechanism for comparison of charges by the consumers.

#### 4.6.2.4 A case can be made, however, for the other side:

- Most mandatory systems around the world permit a degree of individual choice. The group nature of occupational retirement funds should allow for economies of a different type.
- A number of the mandatory systems allow freedom of movement between providers, introducing significant additional costs.

– South Africa’s occupational retirement-fund system has been in existence far longer than any of the mandatory systems described in this paper and lower charges might be expected from a more mature system, despite the tendency for regulatory authorities to increase the burden of regulation on older systems.

4.6.2.5 Two voluntary systems are included in the available data set: the Czech retirement system and the newly launched open pension funds in Italy. In section 3.4.2, the upper limit of the charge-ratio range of 14% to 18% is suggested as appropriate for international comparison of the Czech system because it excludes the government co-contribution. The figure of 18% falls within the narrow range computed for South African retirement funds (see section 4.2 for details) but this suggests that, as in the case of mandatory systems, South African funds are on the whole more expensive than international counterparts.

4.6.2.6 The Italian system is more expensive than the South African, but these costs are likely to fall as this system was established only in the last few years and will develop economies of scale over time.

4.6.2.7 Murthi et al. (op. cit.) describe the results of some initial analysis of the costs of administration in Britain’s occupational-scheme environment. Overall cost ratios are in the region of 20%, with figures closer to 25% for smaller schemes. They note that these ratios are close to those experienced by individuals in the personal-pensions environment. Against these figures, the range of 17% to 27% postulated for South African funds appears reasonably competitive.

4.6.2.8 A final comparison may be made with the analysis carried out by Mitchell & Bateman (op. cit.), which sets out charge ratios for different sizes of groups in Australia. As described in section 3.2.2, charge ratios for defined-contribution arrangements vary from 5% to 15% and the corresponding charges for defined-benefit schemes from 7% to 21%. Accurate calculation of the corresponding figures for the South African industry is difficult, but the evidence discussed in the retirement-funds analysis in section 4.2.11 suggests that few large South African funds experience charge ratios of less than 8%. At the small end of the scale as well, few funds can compete with the corresponding Australian figures.

4.6.2.9 With scanty data, clear conclusions are hard to come to, but it appears that, in comparison with most countries, South African retirement funds are expensive to run. The exceptions include the UK occupational-scheme environment, one or two of the newly established national systems and the sophisticated sectors of the Australian environment. On the whole, though, concerns that the occupational retirement-fund industry in South Africa might be running at high cost are supported by this analysis.

### 4.6.3 INDIVIDUAL POLICIES

4.6.3.1 This study focused largely on retirement systems. As a consequence, data regarding international life policies were not systematically gathered and comparison is more difficult.

4.6.3.2 Two useful sources of information were identified: the UK and Australia. The new Italian system has also been discussed, and is included in the chart. As noted by

Fornero (op. cit.) costs are extremely high, though this is partly due to the immaturity of the system. It is not appropriate to use this system for purposes of international comparison. In the UK personal-pension system, charge ratios appear to run in the low 20s (per cent of contribution) as computed by a number of researchers, though some have pointed out the very large variability of experience. Concern over costs in the UK has extended far beyond academic research and the industry is adjusting to the one per cent annual charge limit on stakeholder pensions. The regulator has recently announced that this charge limit is to be raised, but only for the first few years of the contract. Reference may be made to the discussion on stakeholder pensions in section 5.1.4.4. Charges on other products have fallen as a result of the increased consumer awareness regarding fees.

4.6.3.3 Corresponding ratios in Australia appear to be somewhat higher than in the UK. Mitchell & Bateman (op. cit.) quote charge ratios of between 22% and 28% at the retail end of the market. Whitehouse (op. cit.) calculates an average as high as 35% and this is corroborated by Devesa-Carpio et al. (op. cit.). These suggest that the South African figures are very high in comparison with the UK and parts of Australia, but reasonably competitive against the master-trust analysis in Australia.

4.6.3.4 Of course, care must be taken when comparing the international figures with the results for South African policies described in this paper, because the assumptions under which other researchers' calculations have been carried out are not always clear. Whitehouse appears to use a full 40-year contribution term and a similar set of assumptions regarding investment returns and salary growth, which means that his figures are directly comparable. The approach used by Devesa-Carpio et al. (op. cit.) is based on the Whitehouse approach.

4.6.3.5 Comparison is made a little more difficult by differences in the levels of saving. Economies of scale may be more difficult to achieve in a developing country where saving levels are likely to be lower. The counter-argument to this is that costs should be lower as well.

4.6.3.6 Overall, there is evidence to suggest that South Africans have reason for serious concern regarding the analysis of costs to individual life savers, but that we would not be alone in this concern: parts of the Australian system appear expensive as well.

#### 4.6.4 UNIT TRUSTS

4.6.4.1 The South African average annual reduction in yield across all product providers, without weighting for assets under management, is 1,58%. This compares reasonably well with the United States equivalent of 1,28% quoted by James et al. (op. cit.) and the alternative figure of 1,49% quoted by Diamond (op. cit.). Higher costs might be expected in South Africa than in the United States, not only because economies of scale are less likely in the smaller South African market, but also because the USA market has been more conscious of costs for a long time and the market has a greater proportion of no-load funds and other low-cost alternatives. Some would suggest in contrast that a market size of R250bn (to be exact, R249.6bn<sup>23</sup>) is sufficiently large for economies of scale to be fully realised.

4.6.4.2 Are these comparisons really like for like? Diamond (op. cit.) quotes from a 1998 study by Rea and Reid and makes it clear that the figure includes annual charges and annualised initial charges, but not brokerage. The approach described by James et al. (op. cit.) also includes annualised initial charges and uses a similar methodology. These comments suggest that the comparison is fair.

4.6.4.3 Detailed analysis of similar costs in other markets is beyond the scope of this research, but evidence from Chile (James et al., op. cit.) indicates that equivalent costs in that country are far higher than those in South Africa.

4.6.4.4 The available analysis suggests that, in contrast to the occupational pension-fund environment and the range of products for individual retirement saving, the unit-trust industry provides a retirement-saving mechanism at costs that are reasonably competitive by international standards.

## 5. IMPLICATIONS FOR POLICY & FURTHER RESEARCH

### 5.1 POLICYMAKING IN A COMPLEX ENVIRONMENT

“Financial regulators and supervisors are confronted with an increasingly complex global environment in which the traditional distinctions between financial institutions and between banking and other types of financial activity are blurred. The complexity of the financial environment is increased by the speed with which portfolios can change, and by the globalisation of the operations of major financial institutions and markets outpacing the national accounting, legal and supervisory systems on which safety and soundness of individual institutions and financial systems rely.”

—G. Marcus<sup>24</sup>

5.1.1 This paper analyses and discusses the level and spread of charges eroding South African retirement savings. The research indicates that, while there is a range of experience across and within savings channels, there is cause for concern overall regarding these charges. This section examines how the evidence presented in this paper might shape the future of policymaking for pension saving in a complex environment. This debate is intricate and far-reaching. It is neither possible nor desirable to propose options across the entire policymaking spectrum on the basis of this research and this is not an attempt to do so. Instead, a series of thoughts is presented that arise from the study of the international literature and from insights gained during the analysis process. These thoughts are set out not as conclusions but as a set of possibilities.

### 5.1.2 CLOSURE OF CHANNELS

5.1.2.1 The results do not imply that any of the channels should be closed. When an individual chooses between financial products or channels, expected administration charge is just one aspect of the decision-making process. Closure of any of the three channels investigated on the basis of cost alone would be inappropriate. The results

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24 Annual report 2002. Financial Services Board of South Africa, p 2.

discussed in the previous section give much cause for concern, but each channel plays an important role in providing appropriate vehicles for retirement saving. Also there are many sound reasons for the cost differences between channels. Flexibility and individualised design come at a price.

5.1.2.2 The author submits that existing channels should not be closed on the basis of cost alone.

### 5.1.3 CONSISTENT DISCLOSURE OF COSTS

5.1.3.1 Costs are opaque. This is particularly so in the life-insurance and retirement-funds environments. The difficulties experienced in the gathering of data suggest that industry consumers would find it very challenging to compare providers on the basis of cost.

5.1.3.2 The life-insurance industry may find some defence in the policy-value projections that are provided to all prospective policyholders. Provided that all costs are taken into account in these calculations, consumers have the ability to compare providers, because the investment returns used in these projections are prescribed.

5.1.3.3 However, these figures are presented as rand amounts. Most policies also provide life cover, confusing the issue. The projections do not equip the consumer to determine the financial effect of these costs, let alone translate these into meaningful measures. Measures like the charge ratio or the annual reduction in yield are not necessarily meaningful either and thought would need to be given to the development of measures that can be understood by consumers. Whatever figures are used, they must be sensible for comparative purposes. Simple summary figures, with straightforward explanations, would assist investors:

- to understand the real effect of charges;
- to compare intelligently across products; and
- to make informed decisions regarding the savings channel appropriate to their needs.

5.1.3.4 The Financial Services Authority in the UK, as an example of transparency, hosts a website for comparing charges. The site provides the total charge payable over the policy lifetime for any specified policy details, across the full range of participating providers.

5.1.3.5 The unit-trust industry appears to be more transparent, helped by the fact that the range of charges is limited. Still, information could be improved by providing consistently calculated summary ratios, again with clear definition of terminology.

5.1.3.6 In both the life-insurance and unit-trust industries, if contracts allow for changes to the levels and types of charges, it is reasonable to require providers to make this clear and to provide appropriate information every time charges are modified.

5.1.3.7 The issue is perhaps more complex in the retirement-fund industry. A proportion of the charges may be passed on explicitly by the fund to the members. More commonly, trustees regard charges levied by providers as the cost of running the fund. In these cases, the costs are often carried by the employer, who may take these into account when choosing whether to provide the fund as part of its employment policy. One crucial exception to this concerns investment fees in a defined-contribution fund, where these are

not explicitly notified but are deducted from the gross investment return. These fees very clearly affect retirement savings and a case may be made for notifying members of them.

5.1.3.8 Regardless of these issues, the monitoring and control of costs should fall within the fiduciary responsibility of the board of trustees, because cost has at least an indirect effect on members' benefits. Consequently, the trustees should gather all the information required to ensure that the costs incurred by the fund are reasonable. Initiatives that would accelerate this process include:

- clear, simple reporting requirements from the FSB enabling a minimum of industry information to be collated;
- sufficient industry analysis to enable trustees to measure fund expenses against appropriate benchmarks, for example, a page of output in the annual report by the Registrar of Pension Funds;
- a requirement that asset-management charges be disclosed separately from gross investment performance; and
- industry initiatives increasing the awareness of the effect of charges and recommending minimum disclosure to members, including discussion of the effect of charges on members' benefits.

5.1.3.9 The Canadian Joint Forum of Capital Market Regulators has published a set of guidelines for those defined-contribution pension products in which members may choose between two or more investment options. These guidelines suggest that the sponsor should provide members "... with the description and amount of all fees, expenses and penalties relating to the plan that are borne by the members."<sup>25</sup>

5.1.3.10 The guidelines go on to list details of charges to be provided to members. The author submits that the compilation of such a list should be considered by South African policymakers.

5.1.3.11 A longer-term objective might be the development of charge measures common to the entire retirement-savings industry that would allow savers to make all retirement-planning decisions more confidently. The FSB has the reach to coordinate such an initiative, but should consider the potential for unintended consequences as a result of the greater emphasis on charges: the key question to ask is whether the quality of decision-making would improve.

5.1.3.12 The author submits that a consistent methodology should be established for measuring charges and that a set of minimum disclosure requirements should be established for all retirement-savings channels.

#### 5.1.4 CHARGE LIMITATIONS

5.1.4.1 The effect of centrally imposed charge limitations on the retirement-savings industry is difficult to assess. Some would suggest that any limitations that reduce maximum charges are of benefit to consumers. Others point out that industry players who might otherwise aim to be competitive would tend to migrate towards the newly imposed

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25 Canadian Joint Forum of Financial Market Regulators (unpublished). Guidelines for capital accumulation plans, May 28 2004, Joint Forum of Financial Market Regulators, Canada: 10.

ceiling, which over time becomes the *de facto* default charge. An analysis of the economic theories around such regulatory prescription is outside the scope of this paper.

5.1.4.2 A number of regulators around the world have elected to impose maximum charges on market players, but with great care to avoid unintended consequences. If the ceiling is set too low, market players are driven out of business, reducing the existing competition. If the ceiling is set too high, aggregate costs may rise as providers drift towards the ceiling, leaving the consumers in a poorer position overall.

5.1.4.3 The Swedish system of maximum asset-management charges is a complex model, probably not appropriate to all environments.

5.1.4.4 The UK limitation on the stakeholder range of personal-pension products is remarkably straightforward: one per cent of assets only. Despite voices of concern from the industry and suggestions that only a handful of providers would be able to operate in the stakeholder environment, the firm resolve of the regulator appears to have spawned a thriving industry. Comparative tables provided by the Financial Services Association show 38 products provided by 28 different providers.<sup>26</sup> Investment and Pensions Europe quotes sales of 1,9 million stakeholder pensions.<sup>27</sup>

5.1.4.5 Following intensive lobbying by the industry, news is emerging that the authorities plan to relax the charge limitations, allowing an annual charge of 1,5% of assets for the first ten years. However, while the modification allows providers to recoup initial expenses more quickly, it has little effect on the aggregate charge if contributions are paid over the full term of a long-term contract. The annual reduction in yield for a 40-year contract is 1,04% and for a 30-year contract, 1,06%.

5.1.4.6 There is strong evidence that charges for other products have also fallen as a result of the stakeholder initiative and the resulting publicity (Murthi et al., unpublished b), though it should be noted that a great many initiatives were launched almost simultaneously. As noted in ¶5.1.3.4, the Financial Services Authority has launched a web site with comparative tables that provide to consumers an interactive, personalised medium for selecting the product offering them the best value, specifically by targeting low charges.

5.1.4.7 In the complex South African environment, charge ceilings would be difficult to apply. A consistent measure of pricing would need to be developed and careful analysis undertaken regarding the level of a proposed ceiling. The consequences of the ceiling would need to be considered as carefully as possible before implementation, and measured as well as possible thereafter. Regular review of the system would be required. Charge limitations may be more appropriate in the environment of a newly created class of products like the stakeholder in the UK.

5.1.4.8 The author submits that the implications of imposing maximum charge systems on part or all of the industry should be considered.

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26 Available at [www.fsa.gov.uk/tables](http://www.fsa.gov.uk/tables), as at 5 June 2004.

27 Source: [www.ipe.com](http://www.ipe.com), 18 June 2004.

### 5.1.5 NEW CLASS OF PRODUCTS

5.1.5.1 The high-profile launch of the stakeholder range of pensions saving products in the UK makes an equivalent in South Africa an attractive option. Consideration of the success of the stakeholder launch is beyond the scope of this paper, but detractors have pointed out that it is being used largely by the middle- and upper-class saver. It was intended for the lower-income worker who needed a cost-effective and straightforward mechanism to fill the gap between state-provided and employer-provided retirement savings.

5.1.5.2 However, the stakeholder system is just one option: a privately managed, funded, voluntary system. Another option might be a national provident fund, in line with many of the defined-contribution arrangements in South Africa, but centrally managed to ensure economies of scale. If a new class of products were to be set up, whatever form it took, it should at least be straightforward to understand and implement, inexpensive to run, and designed for the benefit of the savers. It should also dovetail with existing arrangements, reducing the potential for unintended consequences like lower saving in other areas.

5.1.5.3 The author submits that the need for a new class of products to stimulate cost-effective retirement saving should be assessed.

### 5.1.6 LESSONS FROM OVERSEAS

Many of the benefits to be gained from observation of experience outside of South Africa can only be applied to a mandatory system, or at least a voluntary system with considerable national reach. For completeness, however, these lessons, discussed in more detail in section 3.6, are listed as a reminder of the policy steps that might bring benefit to the South African environment:

- centralise elements of retirement-savings administration;
- look for ways to develop economies of scale;
- restrict the set of allowable charges;
- find ways to impose limits on marketing costs;
- establish limitations on portfolio freedom that reduce costs without unduly restricting investment choice;
- shift costs to other areas, by postponing them to later generations or by moving them to other parts of the economy; and
- find ways to cross-subsidise low-income earners.

## 5.2 SUGGESTIONS FOR FURTHER RESEARCH

The analysis presented in this report suffers a number of shortcomings. In this section, ways in which this research could be taken further are set out. All of these focus either on the breadth of the numerical research, or on the potential for this research to be translated more actively into policy. The suggestions below are listed in increasing order of complexity, and probably also in increasing order of importance.

### 5.2.1 BETTER DATA

5.2.1.1 The most obvious shortcoming of this study is a lack of quality data, particularly in the areas of individual-life products and occupational retirement funds. Improvements should be made to the data set.

5.2.1.2 In the case of individual-life products, a broader spread of providers would be useful, together with some indication of the penetration of each of these providers into the retirement-savings market. More detailed comparison with the other products of each provider would provide greater insights into the nature of the charges experienced specifically by retirement savers.

5.2.1.3 Occupational retirement funds are subject to a more complex range of charges and analysis should take place from a number of perspectives. Comprehensive surveys of a variety of different players would assist and the following data sources may be useful:

- annual reports of retirement funds, supplemented by more detailed discussion with trustees;
- information held by fund advisers;
- charge schedules from product and service providers such as administrators, asset managers and consultants; and
- consolidated industry information from the FSB and other industry bodies like the Institute of Retirement Funds.

### 5.2.2 DEEPER ANALYSIS

5.2.2.1 It would have been useful to have been able to spend more time analysing the numbers to understand:

- the underlying drivers of administration cost; and
- the variability of charges experienced by market players.

This would require more data, because detailed analysis on scanty data would create illusions of accuracy. But it also requires better focus. A study as broad as this is not ideal for developing a detailed understanding of particular parts of the savings environment.

5.2.2.2 The effect of a number of further issues should be further explored. These include:

- investment switching;
- contribution interruptions;
- guaranteed charges;
- trading costs, brokerage and other hidden costs; and
- options around purchasing annuities.

5.2.2.3 It would also be useful to have a greater research focus on those savers affected most by high charges. An environment with high fixed unit cost and no cross-subsidisation of charges penalises low-income savers. Better understanding of the dynamics would improve assessment of the problem. Financial support for those most affected by charges is possible through a variety of mechanisms, but these would be effective only after accurate analysis of the effect of charges on all savers.

### 5.2.3 BETTER COMPARISONS

5.2.3.1 It would be interesting to see further research permitting more confident comparison of the three South African channels against one another and against international counterparts. The comparison should take into account differences in the design and objectives of the alternatives and analyse in more detail the apparently large differences in charges across channels.

5.2.3.2 A more detailed literature review of international systems would help. The efforts of this research project were focused on understanding the old-age system as a whole and the description of charges overseas is biased towards national mandatory systems. Further research into the three channels would be useful, analysing how South Africa's retirement funds, individual-life products and unit-trust arrangements compare with international counterparts.

### 5.2.4 A MORE DETAILED CONSIDERATION OF THE LINK BETWEEN CHARGES AND POLICY

5.2.4.1 Research that more clearly translates its findings on charges into concrete policy would be interesting. A very large number of papers have been written that describe national retirement systems. A smaller number can be found that put forward clear recommendations for the future of these systems. But very few demonstrate steps towards a desired future that takes into consideration all the objectives of a social-security system.

5.2.4.2 The price that a consumer pays to be able to save for retirement is clearly of key concern to policymakers. But how to determine what price is appropriate and how to spread total cost across a system are complex questions that are difficult to answer. It would be useful to find ways to understand better the link between cost and ultimate benefit. And for this we need a better grasp of the range of system objectives that could be considered.

### 5.2.5 LIFETIME SAVINGS PATTERNS

5.2.5.1 This analysis required a number of simplifying assumptions: an uninterrupted period of saving, for example, with gradually increasing contributions. This helps to develop a clear picture of product charges, but fails to develop an understanding of total system cost and the resulting financial status of savers in retirement. Savers do not behave in easily predictable ways, even when they recognise that a steady period of saving is the best way to protect against financial distress after their retirement.

5.2.5.2 A more helpful approach would be to spend time understanding the financial wellbeing of a wide variety of savers, both before and after retirement. Through longitudinal study or a thorough and broad snapshot, researchers should aim to gain a better picture of the financial health of the aged. For those that have been fully or partly employed during their working years, how much have they been able to save, what have been the most effective savings mechanisms and how well-off will they be during their retirement? This could be extended: for those without savings who depend on social

security, how well does the grants system meet their needs and how would they be able to apply increases to these grants?

5.2.5.3 Engen et al. (unpublished) analyses the adequacy of retirement wealth accumulation in the USA in the light of recent stock-market fluctuations. If studies such as this were to be carried out in South Africa, a better picture of overall post-retirement financial security would be developed.

### 5.3 FINAL THOUGHTS ON POLICY ISSUES

5.3.1 A large variety of options exist, and there is vigorous debate among academics and policymakers regarding the advantages and disadvantages of each of these options. Funded or unfunded, centrally or privately managed, defined benefits or defined contributions, there are no obvious solutions. Readers interested in a range of views should consult World Bank (1994), Holzmann (unpublished), Orszag & Stiglitz (op. cit.) and Barr (unpublished). These represent just a few of the writers that have set out to understand the complex effects of the available alternatives.

5.3.2 And the key question for policymakers is whether savings should be voluntary, like life office retirement annuities and UK personal pensions, or mandatory, like the majority of the international systems described in this paper. Considered from the perspectives of cost and coverage, a mandatory system appears to be better, but this fails to recognise the difficulty that such a system would impose on individuals with interrupted employment histories. The approach taken thus far by policymakers in South Africa is that mandatory retirement saving, even compulsory preservation of any retirement savings already made, is not within reach in this country.

5.3.3 The Taylor Report (South African Government, 2002) sets out to review all the issues affecting South Africa's social security and private pensions industry and it is not within the scope of this research to comment on their recommendations. But the report and its recommendations exist and there is a growing urgency for South Africa to put together a comprehensive long-term approach to retirement-funding issues that addresses in some way the wide variety of needs in this country. As Whitehouse (op. cit.: 60) says:

“Some analysts treat lowering administrative charges as the only goal of designing a pension system. I have tried to spell out the important trade-offs involved. Lower administrative charges can involve substantial constraints on individual choice of pension provider and of pension-fund portfolio and limits on competition. This conflicts with other goals of pension reforms and might adversely affect pension funds' net rate of return.”

5.3.4 It is hoped that this report sheds some light on the costs of saving for retirement. But these costs are only one piece in a complex puzzle affecting the prosperity of South Africa's citizens in their golden years.

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## APPENDIX A

### OCCUPATIONAL RETIREMENT FUNDS: ASSET MANAGEMENT CHARGES

Table A1 shows an analysis of institutional asset-management charges for occupational retirement funds in South Africa. It should be noted that pooled and segregated portfolios overlap in those cases in which the manager levies the same charges for both products.

Table A1: Analysis of institutional asset-management costs in South Africa<sup>28</sup>

Investment (Rm)	Mean annual charge % of assets					
	Equally weighted portfolios (%)			Equally weighted managers (%)		
	All	Pooled	Segregated	All	Multi- managers	Single manager
30	0,66	0,66	0,68	0,69	0,82	0,66
100	0,62	0,62	0,63	0,63	0,75	0,60
300	0,56	0,56	0,56	0,56	0,64	0,55
1000	0,52	0,53	0,51	0,51	0,57	0,50
No.	42	35	28	21	4	17

<sup>28</sup> Source: Alexander Forbes and author's calculations.

## APPENDIX B

### INDIVIDUAL POLICIES

Table B1 shows the mid-point of the range of life-policy charge measures in respect of the asset-management fee for different periods of saving. The assumed annual rate of return on assets is 10% and the assumed annual rate of growth of contribution is 7%. Tables B2 and B3 show the minimum and maximum of those measures respectively. Table B4 analyses the mid-point of the range of charges by type (viz. commission, asset-based and administration) for premiums starting at R200 a month.

Table B1. South African life policy charge measures:  
mid-point of the range of the asset-management fee<sup>29</sup>

	Reduction in yield %				Charge ratio %			
	10 yrs	20 yrs	30 yrs	40 yrs	10 yrs	20 yrs	30 yrs	40 yrs
R200 starting premium								
Firm A								
retirement annuity	4,69	3,45	3,03	2,82	19,61	28,06	36,00	43,38
provident fund	3,37	1,92	1,61	1,49	14,56	17,01	21,56	26,58
Firm B								
retirement annuity	4,28	2,74	2,23	2,01	18,09	23,19	28,31	33,78
Firm C								
retirement annuity	5,92	3,88	3,24	2,89	23,98	30,87	37,88	44,13
Firm D								
retirement annuity	5,10	3,98	3,21	2,81	21,08	31,47	37,62	43,30
provident fund	4,39	3,08	2,73	2,55	18,48	25,59	33,21	40,37
R1 000 starting premium								
Firm A								
retirement annuity	3,80	3,00	2,74	2,60	16,24	25,05	33,31	41,01
provident fund	2,64	1,63	1,44	1,37	11,63	14,71	19,55	24,76
Firm B								
retirement annuity	3,31	2,27	1,93	1,79	14,34	19,71	25,10	30,83
Firm C								
retirement annuity	4,25	3,26	2,88	2,64	17,94	26,83	34,68	41,45
Firm D								
retirement annuity	4,50	3,67	3,02	2,67	18,89	29,51	35,87	41,74
provident fund	3,53	2,78	2,52	2,40	15,19	23,44	31,28	38,65

<sup>29</sup> Source: Participating life offices and author's calculations.

Table B2: South African life-policy charge measures:  
 minimum asset-management charges<sup>30</sup>

	Reduction in yield %				Charge ratio %			
	10 yrs	20 yrs	30 yrs	40 yrs	10 yrs	20 yrs	30 yrs	40 yrs
R200 starting premium:								
Firm A								
retirement annuity	4,31	3,06	2,64	2,44	18,20	25,45	32,43	39,07
provident fund	3,37	1,92	1,61	1,49	14,56	17,01	21,56	26,58
Firm B								
retirement annuity	4,03	2,48	1,97	1,75	17,13	21,32	25,61	30,35
Firm C								
retirement annuity	5,92	3,88	3,24	2,89	23,98	30,87	37,88	44,13
Firm D								
retirement annuity	4,54	3,40	2,64	2,25	19,03	27,79	32,43	36,80
provident fund	4,19	2,88	2,53	2,35	17,73	24,20	31,29	38,04
R1 000 starting premium								
Firm A								
retirement annuity	3,42	2,62	2,36	2,22	14,77	22,33	29,59	36,51
provident fund	2,64	1,63	1,44	1,37	11,63	14,71	19,55	24,76
Firm B								
retirement annuity	3,06	2,02	1,67	1,53	13,33	17,75	22,27	27,24
Firm C								
retirement annuity	4,25	3,26	2,88	2,64	17,94	26,83	34,68	41,45
Firm D								
retirement annuity	3,94	3,10	2,45	2,11	16,79	25,72	30,53	35,06
provident fund	3,33	2,58	2,33	2,20	14,42	22,01	29,31	36,25

30 Source: Participating life offices and author's calculations.

Table B3: South African life-policy charge measures:  
maximum asset-management charges<sup>31</sup>

	Reduction in yield %				Charge ratio %			
	10 yrs	20 yrs	30 yrs	40 yrs	10 yrs	20 yrs	30 yrs	40 yrs
R200 starting premium								
Firm A								
retirement annuity	5,07	3,83	3,42	3,21	21,00	30,56	39,34	47,32
provident fund	3,37	1,92	1,61	1,49	14,56	17,01	21,56	26,58
Firm B								
retirement annuity	4,54	3,00	2,49	2,26	19,04	25,00	30,89	37,00
Firm C								
retirement annuity	5,92	3,88	3,24	2,89	23,98	30,87	37,88	44,13
Firm D								
retirement annuity	5,66	4,55	3,79	3,38	23,07	34,93	42,33	48,99
provident fund	4,58	3,28	2,93	2,75	19,21	26,95	35,06	42,59
R1 000 starting premium								
Firm A								
retirement annuity	4,18	3,38	3,12	2,99	17,69	27,65	36,79	45,11
provident fund	2,64	1,63	1,44	1,37	11,63	14,71	19,55	24,76
Firm B								
retirement annuity	3,57	2,52	2,18	2,04	15,33	21,61	27,80	34,20
Firm C								
retirement annuity	4,25	3,26	2,88	2,64	17,94	26,83	34,68	41,45
Firm D								
retirement annuity	5,06	4,24	3,58	3,24	20,94	33,07	40,72	47,59
provident fund	3,73	2,97	2,72	2,60	15,96	24,84	33,18	40,94

31 Source: Participating life offices and author's calculations.

Table B4: South African life-policy charge measures:  
mid-point of the range of the asset-management fee: charges analysed by type<sup>32</sup>

	Reduction in yield %				Charge ratio %			
	10 yrs	20 yrs	30 yrs	40 yrs	10 yrs	20 yrs	30 yrs	40 yrs
<b>Firm A</b>								
retirement annuity	4,69	3,45	3,03	2,82	19,61	28,06	36,00	43,38
commission	1,37	1,01	0,89	0,82	5,77	8,27	10,64	12,89
asset-based	1,15	1,15	1,15	1,15	4,86	9,37	13,52	17,30
admin.	2,18	1,29	0,99	0,84	8,98	10,42	11,83	13,19
provident fund	3,37	1,92	1,61	1,49	14,56	17,01	21,56	26,58
<b>Firm B</b>								
retirement annuity	4,28	2,74	2,23	2,01	18,09	23,19	28,31	33,78
commission	0,91	0,33	0,13	0,07	3,94	2,90	1,92	1,43
asset-based	1,54	1,54	1,53	1,54	6,50	12,77	18,91	24,88
admin.	1,83	0,87	0,56	0,40	7,65	7,52	7,48	7,46
<b>Firm C</b>								
retirement annuity	5,92	3,88	3,24	2,89	23,98	30,87	37,88	44,13
commission	1,41	0,93	0,69	0,50	5,81	7,63	8,59	8,98
asset-based	2,01	2,00	2,00	2,01	8,15	15,47	22,28	28,53
admin.	2,50	0,95	0,55	0,38	10,02	7,76	7,01	6,61
<b>Firm D</b>								
retirement annuity	5,10	3,98	3,21	2,81	21,08	31,47	37,62	43,30
commission	0,84	0,40	0,22	0,11	3,60	3,45	2,81	2,07
asset-based	1,85	1,79	1,75	1,72	7,68	14,03	19,98	25,57
admin.	2,40	1,79	1,25	0,97	9,80	13,98	14,83	15,67
provident fund	4,39	3,08	2,73	2,55	18,48	25,59	33,21	40,37

32 Source: Participating life offices and author's calculations.

## **APPENDIX C**

### **COMPONENT ANALYSIS OF INDIVIDUAL POLICY CHARGES**

#### **C.1 DESCRIPTION**

C.1.1 In this section, fees are analysed firm by firm, demonstrating the wide variation in charges by type. Results are tabulated in Table B4 in Appendix B. The analysis that follows suggests that there is no uniform set of drivers affecting charging strategy. The mix of fees varies considerably rather than being closely related to the respective sources of costs.

C.1.2 The process of breaking down charges into their component parts is complex. Where the data are available, it is not difficult to allocate all charge types into commission, asset management and administration, the balancing item. The model easily allows separate calculation of reductions in yields and charge ratios for any set of charges. What is challenging is the reconciliation of the two results: owing to the complexity of the compounding effects over the policy term, the sum of the parts is not equal to the whole. A simple arithmetic sum is not expected, under any circumstances, to give the same result because of the compounding effects of the various charges over the term of the contract. Compounding component charges also does not give the same result as the overall effect of all charges. Almost without exception, the reductions in yield behave rather better, giving results closer to the overall charge result than the charge ratios. This is intuitively comfortable. The reduction in yield operates throughout the term of the policy, though weighted towards the end. The charge ratio is based on the maturity value, so the compounding effects, and hence distortions of the charge types, are expected to be greater.

C.1.3 In order to arrive at a result that is both reasonably accurate and not unnecessarily complex to calculate, the approach has been:

- to calculate the reduction in yield separately for each of commission, asset management and administration, as if, in each case, it were the only charge under the policy; and
- to adjust each of these figures proportionately so as to ensure that the sum of the three reduction-in-yield figures is the same as the reduction in yield for the sum of all charges.

#### **C.2 FIRM A**

C.2.1 Firm A's retirement annuity charges administration fees as a proportion of each premium and on a fixed monthly basis. Asset-management charges are lower than for any

other provider. Costs and charges do not necessarily correspond. This is particularly so in the case of the asset-management charge, which might better be referred to as the annual asset-based charge because it need not correspond to the cost of managing the assets. Commission, termed an advice levy, is payable throughout the policy term and is determined as a percentage of premium and as a (small) percentage of assets.

C.2.2 The resulting pattern shows a set of charges with high commission costs, but correspondingly low asset-management costs. Administration costs form a relatively large proportion of the total, but are slightly lower than for other contracts analysed.

C.2.3 This arrangement provides an incentive to the intermediary to continue servicing the policyholder, but one must wonder whether this servicing is worth the nearly 1% annual reduction in yield given up by the policyholder. This is equivalent to more than 10% of the total maturity value of the policy. The result is a contract close to the most expensive in the market.

C.2.4 In contrast, Firm A's provident-fund product is by far the cheapest in the market. It is the only product that loads all premium-related costs into the first year of the policy, but it also has the lowest fixed monthly deduction. The contract has only one asset-management fee, except for guaranteed-fund arrangements, and this is set at a competitive rate. As the breakdown of charges has not been provided, no details on commission are available, but the contract clearly serves the purposes of the policyholder. Low fixed charges also make this policy very valuable to low-income savers.

### **C.3 FIRM B**

C.3.1 Firm B's product is the cheapest retirement annuity included in the survey and is second overall only to Firm A's provident-fund product. Commission is paid on fairly conventional terms, mostly in the first year of the policy, with a reduced amount paid in the second year, but spread over the term of the policy. The life office also charges a percentage of each contribution for administration and a bid-offer spread. The policy fee under this policy is higher than for any other office, but does not appear to have significant adverse effect on the overall charge figures, as its total cost effect is still low relative to other charges.

C.3.2 Commission and administration charges reduce rapidly with increasing policy term, but asset-management costs remain constant. While the asset-management fees are reasonably competitive, they are significantly higher than in the institutional market.

### **C.4 FIRM C**

C.4.1 Firm C is the only company to levy a fixed initial charge. This affects low-premium more than high-premium policies and it affects short-term policies significantly.

This would not be of great concern if retirement saving were always long-term and consistent, but we know that this is rarely the case.

C.4.2 The commission structure is complex and was expressed as a series of deductions depending on the policy term. The result is a commission level somewhere between the as-and-when commission of firm A and the up-front model of firms B and D. This is presumably designed to encourage ongoing policyholder servicing at reasonable cost.

C.4.3 Asset-management charges are particularly high under this contract, with no option for reduced fees through portfolio choice. The company offers only a guaranteed-fund option. The firm has provided information concerning the guarantee charge and this charge has been excluded from the calculations for consistency. As for firm B, these charges may be considered penal for a long-term contract. Fees are well in excess of their corresponding levels in the institutional market.

C.4.4 Fixed costs make this policy the most expensive for short-term contracts and the high asset management charges are what put this policy among the most expensive even over a 40-year term.

## **C.5 FIRM D**

C.5.1 Firm D's retirement annuity pays front-loaded commission but charges the policyholder over the term of the contract. Contribution-related administration fees are charged in proportion to the commission charge, the proportion itself increasing with policy term. The policy fee is comparatively reasonable. Asset-management charges vary significantly; they depend on the choice of investments—the tables in Appendix B show charges at the extremes of the range for asset management as well as at the mid-point—and are high at the top end, significantly over 2% annually. Though the effect is small, this is the only contract that explicitly loads for the so-called statutory charge of 0,7% of premium rather than absorbing it into the asset-management cost. Reference may be made to the discussion of unit-trust charges in section 4.4.2 for more information on this charge.

C.5.2 Overall, despite the low commission for 40-year contracts, the policy is among the most expensive in the sample. This is largely because the administration portion is higher than for any other contract.

C.5.3 The provident fund from firm D achieves the objective of offering better value than the retirement annuity from the same provider. The fee structure is more straightforward. Commission terms were not disclosed and the premium-related charge is expressed as an allocation percentage. The allocation is reduced by 1% for small, short-term contracts. This affects the 10-year contract at a starting premium of R200 per month. A market-average policy fee is also levied.

C.5.4 Asset-management fees fall within a range, reflecting a degree of choice, but these charges appear high. This is the main reason this contract is uncompetitive against its counterpart offered by firm A.

## **C.6 COMMISSION CHARGES: A COMMENT**

C.6.1 The point has been made in public debate that comparison of the life-assurance and unit-trust products is disingenuous because it ignores the fact that life assurers give advice with their product and cover the cost of advice through commission.

C.6.2 If this were the only difference between the charges levied by the life offices and their counterparts the unit-trust providers, it would be an acceptable point. However, consideration of the figures in Table B4 of Appendix B shows that commission forms a relatively small part of the total charge, particularly on long-term contracts. Even with commission removed, retirement annuities would be significantly more expensive through life assurers than through unit trusts.

C.6.3 Furthermore, the commission cost alone is insufficient to explain the difference between retirement-annuity charges and the corresponding charges under provident funds, where they are provided by the same office. Somehow, the office finds other ways to reduce charges for provident funds, perhaps through economies of scale as these products are usually sold to small groups of individuals.

## APPENDIX D UNIT TRUSTS

Table D1 shows the means of charge measures for South African unit trusts over different periods of saving. The assumed annual rate of return on assets is 10% and the assumed annual rate of growth of contribution is 7%. Table D2 shows the corresponding standard deviations.

Table D1. South African unit-trust charge measures: means<sup>33</sup>

	No.	Reduction in yield %				Charge ratio %			
		term (years)				term (years)			
		10	20	30	40	10	20	30	40
Cash	33	0,83	0,77	0,75	0,74	3,80	7,17	10,63	14,14
Income	14	1,13	1,00	0,96	0,93	5,16	9,28	13,47	17,70
Bonds	22	1,25	1,06	1,00	0,97	5,69	9,82	14,02	18,25
Balanced	51	2,66	2,04	1,83	1,73	11,70	17,89	23,99	29,92
Equity	136	2,81	2,13	1,91	1,80	12,29	18,62	24,82	30,83
Equity passive	7	1,27	1,04	0,97	0,94	5,74	9,65	13,63	17,64
International	34	2,84	2,19	1,97	1,87	12,42	19,03	25,45	31,65
Other	38	2,63	2,05	1,86	1,77	11,55	17,99	24,30	30,42
All funds	335	2,37	1,84	1,67	1,58	10,42	16,20	21,88	27,43

33 Source: I-Net Bridge in association with MoneyMate, and author's calculations.

Table D2. South African unit-trust charge measures: standard deviations<sup>34</sup>

	No.	Reduction in yield %				Charge ratio %			
		term (years)				term (years)			
		10	20	30	40	10	20	30	40
Cash	33	0,53	0,42	0,39	0,37	2,34	3,68	4,98	6,22
Income	14	0,28	0,27	0,27	0,27	1,24	2,38	3,48	4,51
Bonds	22	0,42	0,32	0,29	0,28	1,84	2,83	3,92	5,03
Balanced	51	0,37	0,30	0,29	0,28	1,51	2,37	3,22	3,98
Equity	136	0,36	0,34	0,34	0,34	1,47	2,61	3,65	4,56
Equity passive	7	0,62	0,40	0,27	0,27	2,35	2,70	3,55	4,60
International	34	0,41	0,41	0,42	0,42	1,65	3,17	4,50	5,64
Other	38	0,48	0,36	0,33	0,31	2,02	2,84	3,66	4,41
All funds	335	0,46	0,39	0,38	0,37	1,92	3,06	4,15	5,11

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34 Source: I-Net Bridge in association with MoneyMate, and author's calculations.