

# Cumpston Sarjeant Truslove Pty Ltd

## Consulting Actuaries

22 July 2004

The Secretary  
Senate Economics Legislation Committee  
Parliament House  
Canberra ACT 2600

Dear Dr. Batchelard

### **Inquiry into the Superannuation Industry (Supervision) Amendment Regulations 2004 (No. 2) as in Statutory Rules 2004 No. 84**

#### **Capacity of SMSFs to provide Lifetime or Life Expectancy Pensions**

This submission addresses the issues affecting Self-Managed Superannuation Funds (SMSFs) that arise from Statutory Rules 2004 No. 84, in particular Divisions 9.2A, 9.2B and 9.2D.

#### **SMSF Provision of Lifetime Pensions**

The arguments advanced by Treasury that SMSFs cannot carry the longevity risk inherent in lifetime pensions are without foundation. The techniques used by life insurers to address longevity risks may be applied to SMSFs.

#### **Insurable & Un-Insurable Risks**

The risks that are faced by an insurance company fall into two classes:

- Insurable risks (i.e. diversifiable risks)

Risks that can be averaged are readily insured. A life insurer issuing a large number of one year policies against the risk of death can average claims over all the policies and hence carry only the small risk of divergence from the average. If the life insurer insures 100,000 lives then the likely fluctuation in claim numbers means that the actual number of claims should lie in the range 550 to 650. This level of fluctuation is small at about 8% of expected claims and presents no threat to the solvency of the insurance company.

The insurance company avoids the risk that the over time claim rates and costs may increase by retaining the right to review and increase premiums each year to cover increased costs.

In statistical terms, the insurance company is able to avoid risk by diversification over a large pool of independent risks. Risks are diversifiable.

- Un-Insurable risks (i.e. systemic risks.)

Risks that cannot be averaged cannot be insured unless they comprise only a small part of the life insurer's liabilities. If a life insurer issued policies with a guarantee that the insured could renew the policy each year for the next 25 years at the initial premium rate then the insurance company's financial risk would be unsustainable. If average claim numbers increased, or average claim cost increased (due for example to an unforeseen high level of inflation) then the insurance company would become insolvent.

The problem is that it is not possible to average the risk of a long-term increase in claim numbers or claim costs. The essence of insurable risk, the ability to average the risk over a pool, is absent. Such risk is uninsurable. To address this un-insurable risk the insurance company transfers the risk back to the insured by retaining the ability to alter premiums to reflect change in the average number of claims or in the average claim cost.

In statistical terms, the insurance company is unable to avoid risk by diversification because the increase in likelihood of a claim, or the increase in claim cost, applies to all risks. Risks are correlated rather than independent and are not able to be averaged. Such risks are systemic risks.

## **Annuity Risks**

Annuities are provided on guaranteed terms, so that the insurance company carries two significant risks:

- Longevity risk, i.e. the risk that the annuitant lives longer than expected
- Investment risk, i.e. the risk that assets yield a return lower than expected.

Annuities are paid for with a single lump sum at commencement. The life insurance company issuing the annuity is exposed to the systemic risks that:

- there may be an increase in life expectancy for the whole population; or
- future investment returns may be lower than provided for in the premium.

Although the annuity may run for 30 years or more, the insurer is unable to increase the premium if subsequent experience imposes higher than expected costs. A life insurer issuing annuities is therefore exposed to an uninsurable systemic risk.

Both these risks include a substantial systemic component that the life insurer will seek to transfer to or share with other parties. The insurer may minimize diversifiable risk by:

- Issuing annuities to a large number of lives to average out diversifiable longevity risk
- Holding a diversified asset portfolio to average out diversifiable asset risk.

However the insurer is left with significant systemic longevity and asset risk.

Systemic longevity and asset risk has recently caused the insolvency of the Equitable Life Company in the UK. Equitable Life was one of the oldest and largest UK insurance companies. Such risk is real and can and has caused insolvencies.

**Patrick Collinson**  
**Thursday November 28, 2002**  
[The Guardian](#)

*A cross-party group of MPs yesterday called for the government and the insurance industry to rescue Equitable Life, amid fears that the firm is close to insolvency.*

*Earlier this week Equitable's finance director quit, hard on the heels of a 30% cut in pension payouts to 50,000 annuity holders and an admission by the insurer that it faced breaching regulatory solvency requirements.*

*Vincent Cable, the Liberal Democrat trade and industry spokesman, who initiated yesterday's debate, called for the Treasury to orchestrate an industry-led rescue attempt to prevent the society from going bankrupt.*

Annuities also caused significant problems in AMP's UK subsidiaries.

## Techniques for Meeting Systemic Longevity Risk

Life insurance companies face the systemic risk that annuitant longevity may increase more than forecast, resulting in significant loss to the life insurer. This substantial risk exists even if individual annuitant mortality is averaged over a very large group of lives. DIY funds face the same systemic longevity risk, as well as the risk that an individual annuitant will live longer than average.

SMSFs can and do address longevity risk, by using a few of the techniques of life insurance companies, to cover both systemic and diversifiable risk.

### Option – Bonus paying annuity

A life insurance company lifetime annuity with a price of \$100,000 for a 65 year old male, calculated on the Australian Life Tables 1995/97 rated down 8 years at the current long term Commonwealth bond rate of about 6%, (the market basis used by the Australian Government Actuary for Centrelink purposes), gives \$8,170 p.a.

To avoid the systemic longevity and mortality fluctuation risk the life insurer may issue the annuity as per paragraph 22 of ATO ruling IT 2480 (dated 16 June 1988, indicating that the practice is long-standing) at 70% of this rate, i.e. at \$5,720 p.a. initially with subsequent bonus increases in the annuity. In effect the assumed 6% yield is replaced by a 2.3% assumed yield. Each year 3.7% of the asset value is available to cover the systemic longevity risk and fluctuations in individual annuitant mortality, as well as investment fluctuation risk.

A SMSF may use exactly the same bonus increase technique to address longevity risk.

### Option – Treat as term certain annuity

Alternatively a SMSF may cover the longevity and mortality fluctuation risk by providing for a 35 year term certain annuity. For a \$100,000 price, for a 65 year old man the SMSF needs to earn 7½% p.a. to provide a pension at the life insurance company rate of \$8,170 p.a. for 35 years to age 100. The SMSF fund may have a problem in the few cases where the man lives past age 100: this has a low probability of about 1%. This may be addressed by carrying a provision for the small cost of a life time annuity at age 100. To use this technique the SMSF needs to earn 7½% p.a. as compared with the 6% that the life insurer needs to earn.

Life offices, under applicable regulations, have to reserve and hence price using a long term Commonwealth bond yield. SMSFs may invest in A grade corporate bonds to earn and reserve at a ¾% higher yield, or invest a proportion of assets in shares which will over the 35 years average a higher yield than bonds. A DIY fund should over the long term average 1½% p.a. above the long term Commonwealth bond yield to use the term certain approach. A DIY fund may cover the longevity risk in this fashion. If more than 1½% p.a. above the long term Commonwealth bond yield is earned then the trivial cost of an annuity payable from age 100 can also be accumulated.

### Spurious Need for 50 lives

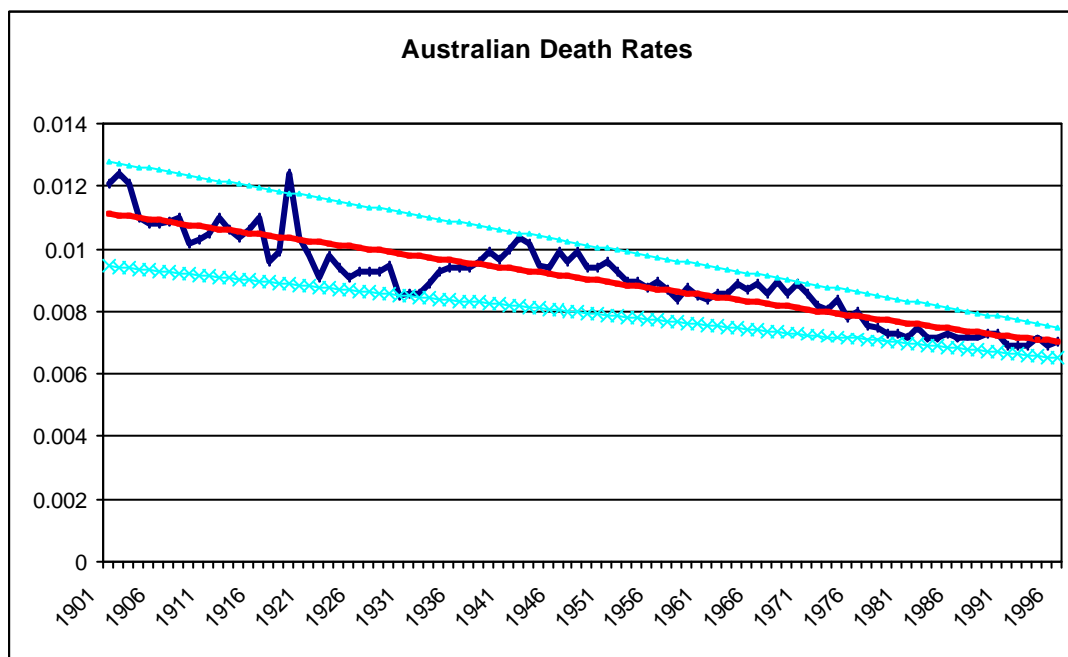
There is no need for 50 lives to average mortality risk using this approach.

The effect of increasing the number of pensioners on the fluctuations in the experience can be seen from the following table based on male lives age 70 and a fixed death rate.

Number of pensioners	Average number of deaths	Reasonable range	Fluctuation Range/Average
50	1.5	0 to 4	165%
500	15	7 to 23	50%
5000	150	125 to - 175	17%
50,000	1,500	1,422 to 1,578	5%

To rely on averaging requires at least 5,000, not a mere 50. The purported basis for requiring at least 50 lives has no reasonable basis. Very few of even the largest superannuation funds would have a sufficient number of pensioners for the fluctuation level to be reduced to a 5% level.

Even if a superannuation fund had 50,000 pensioners, the actual fluctuation would be significantly higher. The mortality rates applicable to the whole population fluctuate from year to year. This is shown in the graph below, which shows the fluctuations over time in the mortality rates of the whole population.



The fluctuations in the population death rates increase the range for 50,000 lives from 1422 – 1576 to 1336 to 1622 i.e. an 11% range.

There is further uncertainty from the uncertainty in the downwards trend in mortality rates.

Faced with these uncertainties, even for very large portfolios of lives, life insurers have constructed their products to transfer the longevity risk back to pensioners or annuitants through the use of annuities with provision for a bonus to cover the risk. The practice has been long-standing, as evidenced by the relevant taxation rulings dating back to the 1980s.

The taxation rulings provide a basis that gives a reasonable buffer to life insurers against fluctuations and adverse trends in mortality rates. As well the taxation basis prevents unreasonable deferral of income, so that no abuses can occur.

No arguments have been advanced by Treasury to imply that the long-standing arrangements for life insurers should not be adopted for SMSFs. This provides a satisfactory solution for SMSFs as well as life insurers.

### **Conclusion re Longevity Risk**

A SMSF may provide a pension, initially at a lower rate, with bonus increases modelled on life insurance company practice. The margins serve to buffer mortality fluctuation risk.

SMSFs are for persons who want a higher yielding investment strategy than life insurance companies are able to provide under their regulatory constraints. An increase in return of 1.5% over the life office yield is sufficient to provide for a pension payable to age 100. In this circumstance the risk of outliving the pension provided is about 1%. Even this risk may be provided for. When the result is a pension comparable to that provided by a life insurance company as well as surplus left in the fund on death of the annuitant then no good social purpose is achieved by prohibiting the provision of lifetime pensions.

Treasury proposals to ban SMSFs from providing lifetime pensions on the basis that the longevity risk cannot be carried are without factual basis. Treasury's proposed regulation should be disallowed as without foundation.

### **Life Expectancy i.e. Fixed Term Pensions**

Where a pension is payable for a fixed term no longevity risk is involved. The significant relevant issue is investment performance.

A superannuation fund commonly groups all its pensioners and uses a single investment policy for the assets of the group of pensioners. If the outcome of the investment strategy is unsatisfactory then the result is unsatisfactory for all pensioners, whether there is one pensioner or 50,000 pensioners. Treasury's implicit argument that the presence of at least 50 pensioners in a superannuation fund reduces the investment risk to an acceptable level is plainly nonsense.

Treasury proposals to ban SMSFs from providing life expectancy pensions on the basis that the investment risk requires at least 50 pensioners to reduce investment risk to an acceptable level are without factual basis. Treasury's proposed regulation should be disallowed as without foundation.

SMSFs generally have a more conservative investment strategy than large corporate funds. Exposure to overseas shares is generally small, so that currency risk is usually negligible. This has meant that SMSFs have generally fared better than large corporate funds because the fall in overseas share markets, exacerbated by the rise in the Australian dollar, has not adversely affected most SMSFs.

SMSFs commonly seek high yielding franked Australian shares, fixed interest securities and mortgages, property and cash. The consequence is summed up by Alan Kohler ("The Age, Business 1, 17 July 2004) "your average self-managed superannuation fund has at least tripled the average professional investor's performance over the last three years without even trying". In this circumstance Treasury intends to force SMSF members who want a life expectancy pension into large professionally invested funds.

Treasury's approach lacks investment merit and economic logic and should be rejected.

## RBL Compression

The effect on the value of defined benefit pensions for RBL purposes must be considered. There is an unfounded notion that some abuse is involved.

A lifetime pension payable from a SMSF is assessed for RBL purposes using the factors set out in the SIS Regulations Schedule 1B. For a 65 year old man taking a lifetime pension with a 10 year guarantee and without a widow's reversion, for a purchase price of \$100,000 the annual amount is about \$8,530. Without increases this has an RBL value of  $\$8,530 * 7 = \$59,710$ . The pension has a value for RBL purposes of less than the purchase price. This applies whether the income is pension from a SMSF or an annuity from a life insurer. If a problem exists then the problem is not addressed by simply transferring the provision of the income to a life insurer.

The great bulk of the SMSF pensions that I certify are issued with provision for bonus increases. This approach is adopted in order to ensure a high probability that the pension can continue to be paid. In that case for RBL assessment the Standard Indexation Rate of 7% applies under Tax Determination TD 96/33 of 26 June 1996. A higher factor applies under SIS Regulations Schedule 1B. This gives an RBL value of  $\$8,530 * 12 = \$102,360$ .

The RBL value is so close to the purchase price that no material difference exists. If there is any concern that abuse of RBL's is occurring then the purchase price could be used. In almost all cases in my experience the result will be virtually no different from the position at present.

The purported concerns leading to the introduction of Division 9.2B do not address the supposed problem in the case of life insurance offices and serve no purpose that could not be better met by treating the purchase price as the RBL value. For SMSFs the purchase price is known, so that this solution could be easily introduced. There is no justification for the blanket prohibition on the payment of pensions from SMSFs.

## DFCS Asset Deprivation

The issue of abuse of social security means test is already addressed by asset deprivation tests. A comparison of annuity rates offered by life insurers with the asset deprivation test used by Centrelink can be seen in the following table for lifetime annuities with a 10 year guarantee period.

Life Insurer	Male 65	Female 65
Office 1	8,521	8,195
Office 2	8,476	7,883
Office 3	8,217	7,776
Office 4	8,301	7,771
Office 5	8,054	7,748
Office 6	8,011	7,474
<b>Centrelink Basis</b>	<b>7,932</b>	<b>7,437</b>
Office 7	7,836	7,104
Office 8	7,832	7,296

The result is reasonable. No material asset deprivation can occur without the appropriate reduction in social security age pension entitlements applying.

The Centrelink basis limits the degree to which the prudentially sound approach of providing bonus paying annuities can be used by SMSF's. The Centrelink basis does not attach any value to future increases allocated to pensions on a life insurer's basis. (See the Appendix for Centrelink's policy statement.)

The Social Security Act sec 1124 requires an assessment of market values. There is no basis in law for Centrelink to ignore a part of the value of the pension, i.e. the value of future increases. This issue is significant in ensuring that SMSF pensions can be paid for the full intended term and warrants investigation by the Committee.

The terms on which bonus-paying annuities are sold are limited by IT 2480 and IT 2492 (See Appendix 2). Paragraph 22 restricts the basis that can be used.

*IT 2480*

*22. .... As a guide, a product which provides for a minimum guaranteed annuity based on 70% of the rate used at the time by the particular company to determine the payments to be made under a purely traditional annuity which the company competitively offers on the market will not be disputed by this office as constituting an annuity merely because of the existence of the obligation to pay bonuses. It is understood traditional annuities are backed by investment in appropriate Commonwealth Government securities and therefore any company which does not offer a traditional annuity product may use the Commonwealth bond rate most applicable to the period for which an annuity discussed in this paragraph will be issued. A Taxation Ruling concerning the provisions of the Taxation Laws Amendment Act 1988 relevant to the timing of the payment of both bonuses and guaranteed payments of an annuity is to issue shortly.*

*IT 2492*

*5. The explanatory memorandum made the following points about bonus components of annuity payments (sub-subparagraph (A) of subparagraphs (b)(v) and (b)(vi) respectively of the definitions of "eligible annuity" and "eligible policy"):*

- (a) the size of bonuses should bear a consistent relationship to the income out of which they are paid;*
- (b) bonuses should be declared annually (assuming the contract provides for them to be paid); and*
- (c) a bonus should normally be paid within the year following its declaration.*

In the absence of reserves in the fund to buffer investment risk the best prudentially sound way of providing a high degree of probability is to provide for a bonus that will be paid if events turn out as expected but which can be reduced to protect the solvency of the fund if investment performance is poor.

The Department of Family and Community Services in April 2000 published an information paper that expressed the concern that surplus might not be allocated as bonus pension increases where the pension is payable from a SMSF. This issue is readily addressed by issuing the SMSF pension on terms whereby the emerging surplus on the valuation basis is required to be allocated as bonus increases.

The problem of wealthy individuals seeking to obtain an age pension has already been addressed by the reduction to 50% assets test exemption of the purchase price.

## **Conclusions**

Both life insurers and SMSF's face longevity and investment risks in providing lifetime and fixed term annuities and pensions. The techniques used by life offices can be used to address the same risks in SMSFs.

For SMSFs the longevity risk for individuals can be addressed by providing for a pension payable to age 100. The extra cost can be met by a 1½% higher yield. This is not

unreasonable given the greater investment freedom that SMSFs have when compared with life offices.

For investment risk an increase in the number of persons exposed to the same risk does not reduce the risk.

The consequence is that the proposal to require that a superannuation fund have at least 50 members before a pension can be provided lacks any considered basis. This has effectively been acknowledged by the Treasury in announcing an inquiry into the provision of pensions by SMSFs.


The matter is best addressed by disallowance of the regulations pending a considered review of the issues.

Yours faithfully

A handwritten signature in blue ink that reads "A L Truslove". The signature is written in a cursive style with a large initial "A" and "L".

Allen Truslove



 DEPARTMENT OF FAMILY AND COMMUNITY SERVICES	<a href="#">Home</a>	<a href="#">Legislation</a>	<a href="#">Search</a>
	<a href="#">Feedback</a>	<h2 style="text-align: center;">Guide to Social Security Law</h2>	
	<a href="#">Social Security Law</a>		<a href="#">Guide to Social Security Law</a>
	<a href="#">SS Act</a>	<a href="#">SS (Admin) Act</a>	<a href="#">SS(IntAgr)Act</a>
	<a href="#">Contents</a>		<a href="#">Keyword Index</a>
	<a href="#">by Act Sections</a>		
	SS LAW Status: 03/12/2003 to 01/01/2004		Guide Status: Current as at 03/03/2004
<b>SS Guide Contents</b> <a href="#">Reader's Notes</a> <a href="#">What's New</a> 1 - <a href="#">Key Terms &amp; Principles</a> 2 - <a href="#">Claim Lodgement &amp; Verification</a> 3 - <a href="#">Qualification &amp; Payability</a> 4 - <a href="#">Income &amp; Assets</a> 5 - <a href="#">Rates &amp; Payment Methods</a> 6 - <a href="#">Reviews, Debts &amp; Payment Recovery</a> 7 - <a href="#">Portability &amp; CFP</a> 8 - <a href="#">Administration Act Provisions</a> 9 - <a href="#">Visas &amp; Entitlements</a> 10 - <a href="#">Australian SS Agreements</a> <a href="#">Acronym List</a> <a href="#">Keyword Index</a> <a href="#">Act Section Index</a>	<h3>4.9.4.50 Deprivation Assessment for ATE Income Streams Paid from SMSFs or SAFs</h3> <h4>Summary</h4> <p>This topic deals with assessment, under the deprivation provisions, of <u>ATE</u> income streams paid from <u>SMSFs</u> or <u>SAFs</u>. This topic covers:</p> <ul style="list-style-type: none"> <li>deprivation provisions,</li> <li>assessing deprivation,</li> <li><u>AGA</u> valuation,</li> <li>AGA valuation procedures, which includes: <ul style="list-style-type: none"> <li>lifetime income streams,</li> <li>life expectancy income streams, and</li> </ul> </li> <li>explanation of deprivation provisions relating to indexation rate for ATE income streams.</li> </ul> <h4>Explanation of deprivation provisions relating to indexation rate for ATE income streams</h4> <p>The documents listed in 4.9.4.30 will specify, for ATE income streams purchased from SMSFs or SAFs, whether indexation will apply, the relevant rate, and whether it is 'guaranteed'. However it is typically for the fund's trustee to have the power to amend the fund trust deed and related contracts, which includes any specified indexation rate even if the rate is guaranteed. Because of this uncertainty, the AGA will effectively assume, for valuation purposes, that the income stream is not indexed (i.e. an indexation rate of 0%) unless the indexation rate is guaranteed through either the fund's documentation or trustee resolution.</p> <p><b>Policy reference:</b> The Guide <a href="#">4.9.4.30</a> Documentation Required for Assessment of ATE Income Streams Paid from SMSFs or SAFs</p> <h4>Deprivation provisions</h4> <p>All ATE income streams are subject to the normal deprivation provisions (4.1.1) in the <i>Social Security Act 1991</i>. These provisions are designed to limit the extent to which customers can avoid the assets test. Deprivation occurs where the purchase price (1.1.P.500) of an ATE income stream is greater than the present value of the</p>		