ABSTRACT OF THE DISCUSSION

HELD BY THE INSTITUTE OF ACTUARIES

Mr T. J. Gordon, F.I.A. (introducing the paper)**:** I would like to begin, possibly unusually, by making it clear what our paper does *not* say:

— We have *not* said that accrued benefits in pension schemes *must* be secure. This decision is up to society and the parties involved in running pension schemes, not the Actuarial Profession.
— We have *not* said that sponsors and trustees *must* fund their pension schemes strongly and invest in bonds and longevity hedging contracts.
— We have *not* said that actuaries *must* be prevented from advising on funding in a particular way.
— *Nothing* which we have said overrides any pre-existing 'social contract' or legal responsibilities of scheme sponsors or trustees.

So, what *does* our paper say? It says, principally, two things:

(1) The standards governing actuarial advice on funding need to be revised to ensure that advice given by actuaries is less likely to be misinterpreted by those who may rely on that advice.
(2) We have argued that, where there is a creditworthy sponsor, there is a strong case for a defined benefit pension scheme to be invested in assets that closely match accrued benefits, and to be strongly funded, in the sense that it is solvent independent of the sponsor.

The case for pension schemes investing in matching assets is much more widely accepted today than it was five years ago, and we think that it is very strong at both the individual scheme level and at the macro-economic level. However, this view, while important, is not our primary focus. The most important aspect of our paper is that it highlights the lack of profession wide standards for giving actuarial funding advice. We have, therefore, made recommendations about the process of giving advice and how that advice is framed. Our recommendations do not restrict the advice; rather, they increase the quality of the information that is disclosed. If you disagree with this notion of disclosure, or our particular recommendations to achieve better disclosure, we think that it would be helpful if you would explain why.

We have raised particular concerns over the notion of 'ongoing funding'. First, let us consider what ongoing funding means. It means, simply, that there may be future reliance on additional contributions from the sponsor in order to pay accrued benefits. So, for example, pay-as-you-go is an ongoing funding method. In fact, any funding method which involves amortising surpluses or deficits is an ongoing funding method. Therefore, it is not surprising that the range of ongoing funding bases which is adopted, in practice, is extremely wide.

Harvie Brown, in his Presidential Address to the Faculty of Actuaries, earlier this month, highlighted the dangers of standards that are drawn widely and the commercial pressures that can lead to 'assumption shopping'. The problem is the reliance that may be placed on disclosed ongoing funding levels and the assumed implications for contribution rates. A particular example is the statement that a pension scheme is '100% funded on an ongoing basis'. If ongoing funding itself is not well defined, how can such statements be meaningful? Our President, Michael Pomery, noted, in his Presidential Address, that these statements can lead people to conclude that the benefits in a scheme are secure, when they are not.

We have made the point that the sponsor's covenant, i.e. the degree to which the scheme can rely financially on the sponsor, needs to be treated as an asset. It is a very special kind of asset though, because it is a form of 'employer related' or 'self' investment, and, therefore, needs even greater scrutiny than normal scheme investment. It does not sit well, though, within a

framework based around conventional ongoing funding valuations. For instance, an unfunded scheme with a strong sponsor covenant (or where there are financial arrangements in place to offset the risk of the sponsor failing) may well provide greater security for members and less risk to the sponsor, and so be better funded in any meaningful ongoing sense than a pension scheme which is supposedly 100% funded on a conventional ongoing basis, but with a weak sponsor. We are not pretending that consideration of the sponsor's covenant is always simple, but this is an insufficient reason for it to be avoided. It is important, however, that the Actuarial Profession is clear that assessing the sponsor's covenant is a job for someone else, and that actuaries should avoid implicit assumptions about the sponsor's covenant when they advise on funding.

In discussing pension scheme funding, it is common to hear references to the 'long term'. It comes as a surprise to non-actuaries, therefore, that funding methods are, typically, not defined for the period after the next formal valuation. We have highlighted, in particular, that, although deficits are sometimes referred to, at a valuation, as being repaid over n years, in practice they are typically re-amortised at future valuations, which means that they are paid over a longer period. We could, additionally, have pointed out that funding targets do not define future contributions unless the amortisation method is also specified. In order to debate long-term funding, let alone assess different funding methods, there needs to be a definition of how contributions would change under different future circumstances, and this is not a feature of typical current funding advice.

We are concerned that the Actuarial Profession may be perceived to encourage the notion that lower sponsor contribution rates go hand in hand with more risky scheme investment strategies. If trustees determine that members are best served by temporarily lowering contributions from the sponsor, there should be no consequent need or pressure for scheme assets to be invested more riskily. Otherwise, members' benefits may be at risk on two counts rather than just one.

At the core of our paper is the notion that it is fundamental that a liability subject to credit risk should be benchmarked against the payment required to meet the liability in full, without the credit risk. Ongoing funding targets do not achieve this, but our profession has been making these assessments for many years in the realm of insurance, and, therefore, we already have the collective expertise. There is no good argument for avoiding this benchmarking, and we note that the Pensions Board has already made a first step, by requiring basic disclosure of this information in formal actuarial valuations, with effect from March 2004.

We conclude that it is dangerous for our profession to continue to sanction advice based on ongoing funding methods, without ensuring that the risks are quantified in relation to pension scheme solvency, which is both a more meaningful, and a more objective, measure. We have, therefore, set out ten principles for actuarial funding advice:

(1) Reference to the *value* of a scheme's liabilities in a funding context should mean the scheme solvency measure, assuming no future financial support from the sponsor.
(2) Disclose the broad impact of priority rules, including how they will impact as time passes.

These first two principles reduce the likelihood that actuarial advice might mislead users over the level of benefit security or the cost of exit for the sponsor.

(3) Require a well defined funding objective expressed in terms of scheme solvency. I stress that this does *not* necessarily mean funding for full solvency.

This principle prevents actuaries advising on funding before clear funding objectives have been established.

(4) Funding targets should be described unambiguously in relation to solvency.
(5) Highlight if contributions are inadequate to maintain solvency (including priority coverage for all members).

Principles (4) and (5) are to prevent funding advice being misleading. A funding target is an intermediate result. The solvency measure can do just as good a job, and avoids the confusing

proliferation of actuarial values. It is clearer to state that the funding target is equivalent to 70% of scheme solvency rather than 100% of something else.

(6) Reserve for options against the scheme, or obtain confirmation that they will not be exercised.
(7) Require the parties responsible for setting contributions to determine the degree to which the company covenant can be relied upon.
(8) Define the amortisation method in full.

This principle is to provide clarity as to when the deficit is likely to be removed by the approach adopted.

(9) Provide a financial risk assessment based on the solvency position at the next review date.

This principle is to ensure that basic risk management information is provided.

(10) Do not advise on contributions beyond the next review, unless these are specified unambiguously.

Principle 10 is to prevent the impression being given that funding advice applies to the long term, when the basis for contributions beyond the next review is, in fact, unspecified.

If the Actuarial Profession had adopted this approach, then we believe that it would have spotted the cost implications of Government imposed indexation of pensions in the 1980s and 1990s; it would have counselled against the formula used for the statutory Minimum Funding Requirement (MFR); it would not have been news to members, and sometimes even trustees, that benefits in pension schemes with failed sponsors would have to be severely reduced; and we would have lost less of our reputation.

We recommend that the Profession's guidance on pensions funding advice, i.e. GN9, should be rewritten, adopting these principles to improve the clarity of advice and to make it less likely to be misinterpreted. Therefore, I remind you again that, if you disagree with this recommendation, which relates solely to process and disclosure, we would like you to explain why.

John Maynard Keynes said: "The difficulty lies, not in the new ideas, but in escaping from the old ones." We think that, if there is to be a long term for an independent and influential Actuarial Profession, then we had better get cracking on that escape plan.

Mr D. O. Cule, **F.I.A.** (opening the discussion)**:** Firstly, I give a word of warning, especially to younger actuaries. Lady (Shirley) Williams, a famous politician, tells of advice which she received when starting in politics: "Make lots of speeches when you are young, and then no one notices the mistakes you make." Clearly, her adviser had not spoken at Staple Inn, where all speeches are recorded, and can come back to haunt you. I am quoted in ¶4.3.2, although, I hasten to add, I do not feel that what I said was a mistake!

This paper is certainly a product of its environment. As pension actuaries, we see many important issues facing us: public faith in the country's pension system at an all time low; a review by Sir Derek Morris of the Actuarial Profession; public doubt about the ability of actuaries to provide a valued service; and significant state and European revision of legislation surrounding the funding of pension schemes. This paper touches on all of these aspects, and pulls few punches in setting out the authors' views on how the profession is implicated in arriving at this perilous state.

Many of us recognise the ideas set out in the paper, and the authors are not claiming any original thought on the underlying theory. The paper's principal thesis is that pension liabilities should be measured by reference to a solvency measure, and this implicitly means a buy-out, or 'gilts with margins', basis. As a corollary to this, the authors conclude (in the last sentence of ¶7.3.6) that all schemes should be funded (or aspire to be funded) to this level, backed by assets reflecting the valuation basis, or at an even higher level with mismatched assets (¶7.4.2). The paper examines some of the counter arguments which have been expressed about this thesis, and rejects them.

The new ideas brought by the authors are set out in Section 7, where ten 'Principles for Funding' are proposed; Section 8, where a critique is made regarding the role of trustee governance; and Section 9, where a strong statement is made about the change in status of the Actuarial Profession over the last 15 years. The core concepts of the paper deserve the profession's gratitude for facilitating this important debate; although it is a pity that the language used in the delivery has led to the unfortunate headlines in the *Financial Times* last week.

I have worked closely with all the authors in recent years, and it will come as no surprise to them that several of their comments resonate strongly with my own thoughts, particularly the need to be open and honest with scheme beneficiaries, the role of a trustee as a trustee (and not as an employee or as a manager of the sponsoring business), and the importance of being clear in what the role of an actuary really is.

Where, perhaps, I depart from sharing the authors' views in full is in the absoluteness of it all, and the severe criticism of past practice, using 20-20 hindsight. Sadly, the world is not a black and white place, much as many people would like it to be. It is grey, and rules are really only guidance about choices to be made. These aspects are revealed in the paper, where, several times, there are opinions expressed as fact or the authors' views are assumed to be 'the right way', and should always have been applied.

For example, much is made of the role of public interest adopted by the Profession, but this concept is never fully defined, and appears to be taken as meaning protecting the benefits of beneficiaries at all costs. Given that private sector defined benefits are provided for a minority of the public, protecting such benefits at all costs may not actually be in the public interest, and this is certainly not a matter for actuaries to judge. In our democratic society, it is the elected Government which makes such decisions, for good or ill.

Also, I do not have the authors' faith in politicians (and the public) being correct or consistent. Government is suggested to be a clear supporter of security, because of all the legal changes introduced since 1975; except, perhaps, when they were explicitly advised to adopt a Minimum Solvency Standard by the Goode Committee, but this was rejected in favour of the now discredited MFR. This was a political decision. In my mind, it was appropriate for politicians, and not actuaries, to make this decision.

Also remember that the same politicians who focused on security also reduce benefits. The main reason why the Pension Protection Fund (PPF) is even remotely likely to work is because pensioners, in receipt of pensions which have pre-1997 increases attaching to them, are having their benefits severely reduced on transfer to the PPF. Further, thanks to the Presidents' letter to the Secretary of State, we know that the current level of PPF benefits are not, themselves, guaranteed. All benefits are not sacrosanct. These are political decisions.

Similarly, members' outrage at insolvent schemes, outlined in ¶3.2.3, appears to be used as a reason why delivery of all benefit is an actuary's duty. I suspect, when the debate surrounding the Turner report on pensions begins, that we will see whether pensions are really that valuable to people if the alternative is higher taxes. Outrage is easy to express when it does not cost you anything.

So, I question some of the issues presented as facts and givens, and offer some counter examples of my own. I recall, some years ago, that a survey on employee perks valued car parking over pensions. At the time I found this amusing, but now I can see an alternative use for that information. If that is the case, why should we be surprised (in an economic sense) if the pensions delivered to the same employees are worth less than a car parking space? It is, after all, economically consistent (if a touch harsh at the individual level).

If this idea is thought too trifling, then remember that those employees, who are allegedly making unsecured loans to barely solvent companies, are the same people who are borrowing excessively on 20% plus store credit cards. These two economic strands are not incompatible.

Similarly, if we accept that economics is about explaining observed phenomena (as opposed to expected situations), why are pension schemes not fully funded on a solvency basis and not fully invested in bonds? Is the power of the vested interests so strong as to prevent the invisible

hand of economics working both here and in America? Possibly. An alternative could be that security is not an absolute, but a relative, and, as long as reasonable security is provided, then the extra optionality given by more flexible funding has an economic value (albeit hard to price). This allows for a more flexible application of enterprise cash flows, which are used, it is hoped, in an efficient capitalist market to generate additional cash flows, which can then be used to meet future pension payments. As support for this thesis, that is what almost every scheme does. This is despite the ideas expressed in the paper being with actuaries for at least seven years, and with the general financial world for much longer than that (as we are often reminded). Shareholders are not requesting management to make these investment changes. The most famous case that did follow the theory, Boots, interestingly no longer has in place the finance team behind the decision. I am not aware of the reason why it is no longer there, but one would expect that, if this was the right decision, a significant number of others would have made it by now.

And the point is ... ? My point is that the world is grey and not absolute, and that 20-20 hindsight is not always a helpful tool. I am happy with many of the ideas raised in the paper, which should be listened to and reflected on. I am unhappy with the tone in which they were delivered, but, perhaps, that was the only way in which the authors felt that they could have put across their message. I think that there are better ways.

I cannot finish on such a downbeat note, as there is much in the paper that deserves close consideration. In particular, I find the idea of codes of practice, as described in Sections 7 and 8, an interesting one, and so offer some of my own.

Scheme trustees should always be aware of the solvency position of the scheme, and they should accept responsibility for telling this to all scheme beneficiaries 'like it is', including priority orders and the potential effect of the PPF. I also suggest that the option to transfer (including pensioners) should be openly available — but only for the value of the benefits which the scheme can provide from its actual assets.

Decisions on funding are an area for compromise between the sponsor and the trustees (on behalf of the beneficiaries) *unless* this is over-ruled by legislation, when the Government must (but, as is most likely, will not) fully define what it wants to happen. In reaching this compromise, the sponsor and the trustees, as principals, will need separate advice and a fully documented agreement. The Scheme Actuary should not separately advise the sponsor. The trustees should act as trustees. There is a strong case for trustees to have an independent chairman — although I accept that this may not be practical for many schemes.

This agreement (which will be the Statement of Funding Principles) should set out all the mechanics of how matters are to be determined for funding purposes, including deficit recovery periods, and should include the similarly agreed Statement of Investment Principles. Re-negotiation can, and should, take place, but only by agreement, as the document would have the power of an enforceable contract.

I believe that this is where the new Pensions Bill (and ancillary measures) should end up.

Ms W. M. Beaver, F.I.A.: As Chairman of the Pensions Board, this enables me to clarify the Board's position. The Pensions Board will be giving full consideration to the paper and the discussions, both here and at the Faculty.

In particular, I would like to point out that this paper, although written by three individuals who are members of the Pensions Board, is not automatically the Pensions Board's view, nor indicative of any hidden policy agenda. Indeed, had this been an official Pensions Board paper, I would not have presented the action plan in ¶9.2.1 as a list of apparently aspirational items, but rather, more proudly, as a progress report to the membership and the wider public, of significant initiatives which we already have well under way. That is an omission which I am sure the authors would wish me to correct.

Although there is much in this excellent paper with which I agree, I would have complemented the theory with recognition of some practical aspects — in particular the affordability of the pensions promise, where Section 6.6 might be thought to be somewhat light. The opener has already referred to the, perhaps somewhat over zealous, language in some areas,

which has had some unfortunate repercussions in terms of press reporting, and, perhaps, has not been helped by the lack of information on initiatives already under way by the Pensions Board.

So, here is my progress report. I am pleased to say that much of what is set out in the action plan in ¶9.2.1 was already under way before the paper had been written — indeed, we started the fourth of these actions — to lobby for the disclosure of better information to members on pension scheme solvency — more than four years ago, and we have returned to it with the Government several times since then.

Moreover, earlier this year we published approaches for determining pension scheme solvency — these underpin the mandatory solvency disclosure requirement on actuaries in their funding reports. Also, the methodology is being kept under review, and we hope soon to be working with the Life Board to improve the methodology still further. That responds to the second action point.

The third action point calls for the Actuarial Profession to be influencing the new regulator on funding issues, with particular reference to solvency, and taking account of the creditworthiness of the employer. The fifth action point asks the Actuarial Profession to lobby for improvements to the governance of pension schemes, as it relates to trustees and advisers. We have been working closely with the Department for Work and Pensions (DWP) and the pensions regulator for quite some time, both at the strategic level and now at the drafting level, on these issues. One member of the Pensions Board is helping the new regulator to develop its code of practice in this and other scheme funding areas. We hope to see, as an outcome, a regulator's code of practice that will recognise the need for trustees to set funding objectives which are well defined, and which take account of the employer's creditworthiness and other relevant risks — not least that of discontinuance.

The authors are mistaken to say, as they do in Section 8.5, that the Profession has overlooked the employer's covenant. We released, more than a year ago, and published on our website a discussion paper which covered, not only the employer's covenant, but other key considerations for funding advice. It should also be borne in mind that the Board's public comments on policy issues are usually the tip of an iceberg of substantive discussions with the Government, which are not so public. The matter of the employer's covenant has been an integral part of our discussions with the Government since 2003.

In the first action point, the authors call for the actuarial guidance note on pensions funding, GN9, to be rewritten. This is imminent, and will take account of the new scheme specific funding regime that the Government will be introducing. While I cannot make any pledge that the revised GN9 will deliver all that the authors ask, I would hope that we will be able to achieve, in guidance, the majority of the initiatives which I have just mentioned.

All in all, I think that I can hold my head up — as can the Pensions Board Chairmen before me — and say that we had already made significant progress towards many of the authors' recommendations, even before they made them.

The authors are right to challenge fundamental pensions issues facing the Actuarial Profession, and it is right that we are having this discussion at this time, but the discussion should not be against a background that the profession is ducking the solvency issue with trustees or hiding it from scheme members. Let there be no delusion about that.

Therefore, I hope that my progress report is helpful.

Last week, Mr Martin Dickson of the *Financial Times*, quoted 'Humpty Dumpty' at us: "When I use a word, it means just what I choose it to mean — neither more nor less." However, he was not being original. Sixteen months ago, the Pensions Board made the same point — and used the same quote from 'Humpty Dumpty' — in our own article in *The Actuary* magazine, where we also announced that a working party had been set up to develop and recommend improvements to actuarial terminology. Perhaps we should be grateful if the worst that can be thrown at us today is an out of date story and a quote borrowed from the Actuarial Profession itself.

The Pensions Board is on the case. The Actuarial Profession is acting.

Mr P. N. Thornton, F.I.A.: I agree that there is no doubt at all that members' expectations from occupational pension schemes have been raised, and that solvency is an issue. There have been too many members who have lost out in scheme wind ups for that to have been avoided. So, there is no question that solvency needs more prominence, and that members need better transparency about the state of solvency. I believe that trustees and employers have understood the issues underlying occupational pension provision rather better than the press, on the whole, and I think that it is notable that actuaries have not come under criticism from trustees and employers.

I also agree with the historical analysis of how we have got where we are. There is an implication in the paper that this is a result of underfunding or weak funding advice in the past; but it is quite interesting, if you pick up the latest *IMF Financial Stability Journal*, where there is a whole section on risk management in pension funds, that it does not attribute the pensions' crisis to past actuarial advice, it attributes it to members' raised expectations from schemes, longevity and low returns.

We all know that there has been a very serious retroactive problem of creeping costs, and employers have basically been on a ratchet over the past ten years or more. If actuaries had moved to the defined accrued benefit method when Thornton & Wilson (1992) was published, that would have reduced funding payments into schemes, and it is quite likely that there would actually be less money in funds now rather than more. The reason, of course, why solvency was a growing concern, but not an immediate one, at the time, was that the 1995 Pensions Act had not come into force, and the pension indexation requirements which came with it were yet to come.

Incidentally, while our 1992 paper marked a watershed between the 'good old days' and where we are now, it did perform a rather important function, that, perhaps, was not well enough recognised at the time, of bridging what actuaries were actually doing in giving funding advice and what investment consultants were actually doing carrying out asset/liability modelling.

The authors assert that underfunding must be reserved for. There is a huge leap of logic here, which does not give credit to trustees and employers for all the work which they do on asset/liability analysis, in consideration of the employers' covenant, that takes place before temporary underfunding is accepted.

The profession is in danger of missing the big picture here. If benefits always had to be secured to this level, there is no doubt at all that no employers would provide these sort of benefits, so there is something wrong, and, of course, that is why we have seen the steady erosion of pension provision. The profession ought to be calling for a change in the legislation to enable less secure pensions to be provided, in the interests of more people getting pension provision.

We could do well to look at the approach in the Netherlands, where there is a three-pronged attack, which is a continuity test, a solvency test and a one-year stress test. That is their approach to funding. More importantly, they have an approach of conditional indexation, where indexation is reduced when it cannot be afforded and restored when it can.

Mr R. I. Sykes, F.I.A.: I agree with the authors' recommendations almost without reservation, and I hope that we will adopt them quickly and enthusiastically. It is time that the debate on pension funding, started by Exley *et al.* (1997), was wrapped up, and that we moved on.

Funding and investment issues from the employer perspective are complex. The financial economics is regarded as rather theoretical, but the issues for trustees, it seems to me, are quite simple. Most people will rely on their pensions when they retire. Employers can go bust and stock markets can crash, and these events can happen at the same time. If we accept these points, we should accept the recommendations of the paper when advising trustees. No one, including the Actuarial Profession, can afford another insolvent, fully funded pension plan.

It is time for us to recognise that the liberal use of professional judgement is not a virtue. To be blunt, judgement is what you use when you do not know the answer. During the last few decades, financial theory has become a science capable of answering most of the key questions

and, critically, developing products to implement these answers. There will always be some residual areas of uncertainty where judgement is required. However, allowing for equity risk premiums in valuing liabilities, without them reserving for the risk, is like telling people to save money by not taking out insurance, because accidents do not happen very often. It is extraordinary that actuaries, of all people, should make this mistake.

We need to set ourselves clear guidelines to keep professional judgements to a minimum, and there are two areas where I would welcome professional guidance. These are future mortality improvements and the evaluation of employer covenants.

Changes in the way in which problems are viewed can be very powerful. There is an excellent example in the paper. Underfunding and self-investment are actually the same thing, and legislation forbids more than 5% self-investment in most cases. In the absence of any specific guidance from the Government or the Actuarial Profession, trustees might deduce that funding levels below 95% are inconsistent with their investment principles.

I am sure that some people see this paper as the final, final straw for final salary pensions. I suspect that that straw was piled on some time ago. However, by showing how to fund defined benefit (DB) liabilities to maximise shareholder and employee value, this paper may yet save other forms of DB retirement plans.

Mr E. S. Thomas, F.I.A.: I speak as a full-time trustee and also as a former pension Scheme Actuary. I think that the paper speaks for itself, and I agree with most of its conclusions. I do want to urge the Pensions Board to take note of the paper and to act. There is a danger that, while Rome is burning, we get immersed in the *minutiae* of actuarial discussion, and we should not do that.

The paper presents us with two opportunities. The first is to re-apply basic principles that all actuaries have learnt about pension scheme funding: that pension schemes were set up on the funded principle to provide security for members' benefits; that greater security is provided when assets are matched to liabilities; that institutions which look after substantial amounts of people's savings can only be run prudently when adequate solvency margins are established; that mismatching reserves and reserves for the cost of options should be held; and that profits should not be anticipated in advance.

This paper also provides an opportunity for Council and the Pensions Board to show leadership. I am glad to hear from Ms Beaver that some changes are already in train. The leadership which I am referring to is not about disclosing the results of reams of computer output, but rather leadership in giving real advice to pension scheme trustees which helps them in the actions and the decisions which they have to take, leadership that is not influenced by commercial interests, and recognises the real conflicts of interests that many pension Scheme Actuaries still suffer.

It is time for action. I urge Council and the Pensions Board to endorse principles of pension scheme funding which will once again empower Scheme Actuaries to demonstrate the important contributions which they can make. Trustees need best advice from their Scheme Actuaries. Scheme Actuaries, in their turn, need their professional body to establish principles which are, first and foremost, in the interests of the members of pension schemes and the security of their benefits. Trustees and members of pension schemes, still look to actuaries to ensure the security of their benefits. They are counting on the Actuarial Profession to ensure that the income which they look forward to when they retire is still there.

Mr S. Cooper (a visitor)**:** I am an equity analyst, not an actuary.

I agree with all aspects of the paper. The authors raise very important issues, which are, not only relevant to you, but are also very relevant to companies which are reporting on their pension positions, and to investors and analysts, like myself, who have to try to interpret this information and to make sense of it.

I shall comment on one aspect of the paper, which is the use of the term 'actuarial valuation'. I remember, when I first started to look at this issue, that it was something which

perplexed me somewhat, particularly the term 'valuation'. The problem, I think, is that many companies which I encounter still put across that this is a real valuation, a valuation that I would think of within the capital markets. To me, an actuarial valuation is merely a representation of a target funding, it is a target that is set after allowing for the investment returns that are expected from a particular asset allocation. Of course, there is nothing wrong with an actuarial valuation in that context, but it does not compare to a market valuation or to a fair value of a financial instrument that would be seen within the capital markets.

The problem for myself and for other investors is that many companies fail to recognise this. Of course, some companies may deliberately try to portray an actuarial valuation as the 'right answer' in preference to FRS 17 and a solvency test, because, of course, it is a better number. However, many companies really do seem to believe that the actuarial valuation is an economic measure, and not what it really is.

I would very much like you to ban the use of the phrase 'actuarial valuation', and refer to it as, for example, a 'funding target'. That would be a significant, and very welcome, step forward.

Mr A. H. Phillips, F.I.A.: As a colleague of two of the authors, and having benefited from their wisdom and clear thinking over the years, I would urge the profession to consider very carefully what is in this paper. There is, in my experience, generally a validity to the arguments put forward, and if we, as a profession, try to ignore this or to do something different, we do so at our peril.

Whilst I agree with much of the content, if there is just one thing that we should all take away from the paper, it is the need for much greater clarity in how we, pensions actuaries, communicate with our clients and with the world at large on funding issues. We have to adopt a more transparent approach. This has been the policy of my own firm for a number of years — we have encouraged clients to consider the implications of their funding policies in terms of the impact on members' security, and our valuation reports have contained full disclosure of solvency levels (as advocated by the paper) well before this was required by the Profession.

Some years ago, I was using such methods with early adopting clients, and found that to be a wholly beneficial experience for all parties concerned. This was especially the case when I was appointed as a Scheme Actuary, to replace another actuary who was still adopting a more 'traditional' approach to funding and/or where the level of disclosure fell a long way short of what we would now consider to be best practice. On occasions, trustees who had become empowered for the first time with their understanding of what their funding policy really meant, could find this to be uncomfortable, but it would always lead to a better understanding of how they needed to work with the sponsoring employer to achieve a result that would be understood by, and acceptable to, all of the interested parties. In one case, I was advising a finance director who had, perhaps, the best grasp of what we were doing of anybody whom I have advised during over 25 years in the profession. He was a chartered accountant by profession, but a highly skilled amateur actuary (and amateur lots of other things as well!), and his relief was very tangible as we moved to a fully transparent approach as to how the pension scheme in his company should be funded.

I was glad to hear Mr Gordon's opening remarks, which reminded members what the paper did not say. It is right that we do not prescribe which benefits *must* be secure, and it is right that we do not prescribe that bonds *must* be the right asset category in which pension schemes should invest. However, both of these are effectively the starting point for the debate, first of all between the actuary and his or her trustee client, and then between the trustees and the sponsoring employer. By being clear and transparent about what we do, we can encourage clients not to think that the value of a pension promise is influenced by the investment strategy adopted by the trustees, or that pensions can, in any way, be made cheaper by the adoption of more optimistic assumptions. With these two starting points, both trustees and sponsoring employers can make better quality decisions about how they actually do wish to fund the promised benefits, and how the assets should be invested. To the extent that the funding target is

not 100% on the solvency basis, or that assets have been invested other than in risk free debt, the implications of this can be evaluated, considered and understood by all parties concerned. Again, I speak from the experience of introducing such clarity to clients who have not seen this before — yes, it can be painful, but the outcome is worth the effort.

It is right that the paper encourages everybody to step back and to consider the duties of trustees and the purpose of funding. For example, should trustees be concerned only with members' security (above all else)? Should they not also take into account the interests of the sponsoring employer, which can be a 'beneficiary' in both a positive and a negative sense? We certainly should not be assuming powers for trustees which they were not given — in fact, consideration needs to be given to the purpose for which trustees were given certain powers. I agree that there may be sound business and tax reasons why a strong employer may wish to have a well funded scheme (and a bond biased investment strategy), but it is not the trustees' role, nor the actuary's role, to force this on employers.

Ultimately, DB pension schemes work best when there is an effective working partnership between trustees and the sponsoring employer. That can only happen when there is a transparent approach to funding and there is real clarity of the associated communication. The paper encourages the debate that is needed to achieve that in practice.

Mr J. Ralfe (a visitor)**:** I am glad that the previous speaker emphasised transparency. The corporate pensions world has moved a remarkably long way over the course of the last few years, towards greater transparency — transparency in accounting, transparency in the way credit rating agencies view pension risk, transparency in regulation. However far we have come, there is a lot further to go. The paper is a plea for the Actuarial Profession to lead the move to greater transparency. It is a plea to the Actuarial Profession, not simply to co-operate, however unwillingly, but to lead the move to telling it like it is, and that is telling it like it is to members, to companies, and, perhaps above all, to the Government.

The paper explains how the Profession can develop a transparent, consistent standard. I am afraid to say that to me, as a non-actuary, the framework developed in this paper and the recommendations that it contains are blindingly obvious. Many, if not most, non-actuaries are shocked that there is no such standard.

I am, however, reasonably optimistic about the prospects that the Actuarial Profession will choose transparency. The requirement to include the gold standard of the wind-up value on a consistent basis is a real step in the right direction. *De facto*, this will become an important part of the information communicated to members. As I understand it, the fund actuary has to explain whether the agreed contribution level will reduce or increase that funding level.

I am also encouraged that the Actuarial Standards Board is a real step forward to greater transparency. It must lead to standard ways of doing things, like the Accounting Standards Board did for accounting.

I am also glad to hear from Ms Beaver that there is much going on behind the scenes in the Pensions Board. Perhaps this should be publicised outside the Profession.

I also believe that actuarial valuations should be in the public domain. They should not be secret documents. They should, perhaps, be filed at Companies House; they should be available on company web sites, just like the annual report. There should also be greater transparency about the real conflicts of interest for trustees and actuaries advising both trustees and the company.

For those of you have not seen Mr Barry Riley's article in today's *Financial Times*, he makes some very interesting comments about the new Standard & Poor's rating for individual pension funds, which, perhaps, could be seen as a rival to the Actuarial Profession. Actuaries would have to explain — and I think that this might be rather difficult — how a scheme could only have one or two stars from Standard & Poor's on a five-star scale, but nevertheless be fully funded.

The Actuarial Profession must not behave like a medieval guild, whose primary function is to protect its members' jobs. In public policy terms, there is just too much at stake. However, there

is also too much intellectual capital and too much ethical capital in the Actuarial Profession to allow that to happen.

Mr D. B. Duval, F.I.A.: There seems to be an argument that some of what we are discussing is really about disclosure, and not about advice. I do not believe that, and I think that the paper is pretty clear that what we are talking about is advice; and, if we were only talking about disclosure, the meeting would not justify this attendance.

Incentives appear in the paper in various places, and the authors give a whole list of incentives operating on pension schemes. Most of them are described as distortionary. The one that is not is the tax incentive. That happens to be the one that supports full funding and investing in bonds, but, if schemes move that way, the Government would probably change the tax incentive. Why would you provide an incentive if you do not need to, and, in any case, the Government would actually get a reduced tax take, so that it would have to change something.

The authors take it as given that bonds are the best match for pension scheme liabilities. That is true, so long as you also take it as given that the pension scheme benefits are entirely defined, and that the sole object of the trust is to meet those defined benefits. If you look at most pensions being paid from DB schemes today, they are very substantially in excess of what was promised at the time when they were accrued. Indeed, if we had only delivered exactly what was promised, no more and no less, company pension schemes would probably have disappeared in the 1970s, because inflation would have rendered pensions worthless. We need to think about that for the future as well. There are many events, which we cannot anticipate, which we need to try to protect our pensioners against, so far as possible. What pensioners need is an income in retirement that bears some relation to what the people around them are receiving, and what they were earning just before retirement. To get that, you need investment in growth assets, not investment in very long-term fixed guarantees in today's pounds or euros, or whatever currency you happen to be talking about. We need benefit designs which allow and encourage investment in growth assets, not ones which inhibit it.

I have looked at how the authors' approach would work on three specific schemes:

(1) This one is a final salary scheme. It is closed to new entrants, it is insolvent, and it is in deficit — a fairly common position. I do not think that the authors' approach would change anything very much. The basic approach is to put in as much money as the company can afford, and to close down the risks as the opportunity offers, and that is, in practice, what would happen under the authors' system.

(2) This scheme is more interesting. It is a career average revalued earnings scheme with revaluation at the RPI. The authors would probably recommend funding this as a non-profit deferred annuity, and investing it in bonds, or possibly in buying non-profit deferred annuities, because that is the way how you close the risk down most effectively, and, clearly, there is a massive divergence between what they are recommending and what is, in fact, happening with the scheme. Their approach would clearly kill the scheme. That worries me; but, equally, it worries me whether the members of such a scheme actually know about the vulnerability of the promise that they have been made? It is disclosed as an accruing promise.

(3) This is a scheme which promises benefit at one level, but actually targets and funds for a higher level. As far as I can see, on the basis of what they have written, the authors would ignore the targeted benefits completely, and just fund for solvency on the lower level of benefits. I hope that is not what they meant, but it appears to be.

Mr J. Hawkins (a visitor)**:** I believe that the paper represents a defining moment for the profession. Where I make polite assertions, rather than develop arguments, for the sake of brevity, I would be happy to defend them in another place or at another time. I also take the practice of asset/liability matching for granted.

I have no doubt that there will be some who disagree with some, or even all, of the conclusions of the paper, but, ultimately, I would hope that most do become accepted and adopted.

The solvency measure, by class of member, has to be the most appropriate starting point for liability valuations, and thus for funding and investment advice. Aspirational rates of return and asset values may have their place, but taking the opener's point, quoted in ¶4.3.2, 60% to 70% probability of having your pension paid does not sound to me like good news.

The idea of an Actuarial Standards Authority should be promoted assiduously. The necessity for this ought to be self-evident. Clearly, actuaries, as with other professionals, need to exercise their skill and judgement when setting assumptions, but the ranges of key assumptions used, for example in discount rates and mortality tables, seem to me to be absurdly wide, and based largely on differences in philosophy and a failure of true understanding. This should not be the case in a modern profession. The better these issues are understood, the more the valuation outcomes will be based on the real world, and not on what is convenient for the trustees and/or the sponsoring company.

The authors deal with transparency and governance, and go a long way in the right direction, but not quite far enough. There may be some cases where it is right for a firm to act for both the trustees and the sponsoring company, or, indeed, to act as the Scheme Actuary and the scheme investment adviser, but Mr Paul Myners did not think so, and neither do I, certainly not for funds of a material size or that are in deficit on a solvency basis. The sooner the Actuarial Profession adopts this as a guiding principle for its members, their firms and their investment advisory subsidiaries, the better. Ironically, this could easily be viewed as a business opportunity rather than as a business threat.

Mr P. M. Greenwood F.I.A. [an augmented version of what he said at the meeting]**:** As one who, in 1991 and 1992, started to draw attention to the fact that we were targeting 'insolvent funding levels', I substantially agree with much of this paper. In that light, in 1992, I do not think that there was actually movement to insolvent funding plans, as stated in ¶6.2.4, but rather that there was inertia in relation to the then current funding methods and arrangements, which, unfortunately, were partly condoned by Thornton & Wilson (1992), which has been overtaken by events since it was written.

The section with which I mainly disagree, is Section 6.6, on current affordability. The Government has attempted to impose increased security of DB promises and benefit levels without recognising the true cost of so doing. At the present time, I estimate that the difference between the present value of United Kingdom DB accrued promises, on a secure cash flow basis, with adequate margins, allowing for the latest mortality information and the current value of the funds, is still to be of the order of a deficit of £360bn.

This debt may have been issued by the employers (or rather, largely imposed by the Government), but it is still not, I believe, fully recognised by markets or on company balance sheets via reserves. I do believe that FRS 17 deficits, probably now of the order of £140bn, are in the market. However, the commentary of most equity analysts still does not recognise the extra £220bn. Indeed, the accounting standard, itself, is now dangerously adrift from reality. FRS 17, paragraph 33, mandates a discount rate which includes a risk premium: "to reflect the options that the employer has to reduce the assumed scheme liabilities''. These options are becoming fewer and far between, as active member liabilities cease to predominate.

The Finance and Investment Board working party, which concluded that a sufficient supply of bonds existed, did so on the basis of current contribution levels and ongoing or FRS 17 sized deficits. I believe that that work should be redone on the basis of risk free targets.

Few employers have bought into these extra costs, even though, without bankruptcy, they may be unavoidable. I believe that the Profession should immediately introduce an actuarial standard requiring the Scheme Actuary to inform both the trustees and the employer of the annual value of accruing rights on a fully secure basis, as well as the new GN9 requirement for a solvency level for accrued rights.

I believe that there are other parties to blame for the current position, as well as the Profession. I substantially disagree with most Government compliance costs in this area over recent years. The Treasury and the investment community wish that DB pension schemes

continue to be a source of risk capital, despite the increasingly guaranteed nature of the benefits imposed, and the wishes of the DWP on guarantees. The two are fundamentally incompatible, and have led to the mess in which the U.K. DB industry now finds itself.

Unfortunately, I believe that PPF financing may continue to be based on methods other than those justified by the paper, although I welcome the recent report from the NAPF working party.

It is a great pity that the original recommendations of the Goode Committee for a true solvency standard were not implemented. At that time, I believe that solvency deficits were of the order of £20bn to £50bn at most. Those who lobbied against them have a lot to answer for.

I also believe that the Profession should no longer have private conversations with Government. In these days of spin doctors and media management, the one-hand-tied-behind-your-back stance that results unfortunately stops the Profession from being able fully to defend itself in public.

I was always taught that a good actuary is one who spots trends in society early, and reacts to them. A system which delivers 100% of what has been promised to, or expected by, 95% of members, and around 50% to the other 5%, was never going to survive. That is especially true when the issue is retirement income, where there is little opportunity for correction if it goes wrong, and those in the 5% can take no consolation from the 95%.

Mr S. A. Carne, F.I.A.: Reading this paper and listening to the discussion, I am reminded of a television advert some years ago. It showed a young thug mugging a pensioner. I do not recall what the advert was for, but what I do recall is that, as the camera pulled back, it became apparent that, in fact, the youth was rescuing the pensioner from falling masonry.

The more I step back from this paper, the less clear I become about what the authors' message really is.

I share the authors' concern when someone says that a pension scheme is fully funded, if the employer faces a statutory debt to top up the scheme. However, pull the camera back, and the statutory debt which they describe has been in place since only last year, and, within a matter of months, the Profession had moved to make disclosure on that basis a compulsory requirement.

The authors have issued a call for action in Section 9, but pull the camera back, and we find the Chairman of the Pensions Board telling us that the list is already work-in-progress. Pull the camera back a little further, and we see that, in September 2004, the Profession suggested to the Morris Review four ways to determine how well secured the liabilities of a pension scheme are. All four methods — including the authors' solvency measure — provide useful information.

Pull the camera back some more: "Why is it that, when economists make projections, no one is surprised when they turn out to be wrong, but everyone is utterly disillusioned when actuarial valuations are not borne out?" I agree with Mr Cooper that, so long as we use the word 'valuation', rather than 'projection', we are just asking for trouble.

Sir Derek Morris is believed to be looking at the way in which lay readers of actuarial reports have inferred a greater sense of certainty about the adequacy of funding levels than was ever intended by actuaries. I am quite certain that the solution to this problem does not lie in finding one measure of funding and focusing attention solely on that.

Pull the camera back again, and focus on the macro-picture that the authors present. The authors imagine, not for the first time, a world in which pension schemes exchange equities for bonds. The authors offer us the truism that capital markets equate supply and demand. However, if the demand curve moves upwards, the price goes up, which means that the return goes down. There is also the converse for equities. Where exactly are all these pension fund trustees who want to make the cost of pensions even more expensive for employers than they currently are? If trustees want to increase security at any cost, why do not they just buy out the liabilities from an insurer from day one? Why pay the authors to do a solvency valuation when you can hold an insurance policy instead?

There are very good answers to these questions, but, no matter how far back I pull the camera, I cannot seem to find them in this paper.

Mr C. J. Exley, F.I.A.: It seems to me that there are at least three fatal flaws with the traditional funding valuation:

(1) Nobody can establish, within the tolerances needed for setting contribution rates, what the return on equities is going to be over the next three, ten or 50 years, and there is no obvious value in the actuarial judgement used to pick this parameter.
(2) This is the misleading nature of actuarial valuations, which has already been dealt with by Mr Carne and Mr Cooper.
(3) This is to do with the funding valuation as a control process. As a control process, a funding basis should not lead you into a situation where we have schemes with the levels of solvency that we have at the moment, nor should it get you into a situation where you have to keep gambling with equities to get you out of the hole into which the control process has led you.

So, traditional funding valuations may result in very smooth and stable results, but they are meaninglessly smooth, potentially misleading, and manifestly do not control the funding process very successfully.

By contrast, I applaud the proposed focus on solvency valuations in the paper:

(1) A solvency valuation is a snapshot, but it is a meaningful snapshot, and you can, at least, reconcile the position on other dates against that position.
(2) If you do not like the volatility of the solvency level, then you can change the investment policy without changing the valuation result, which is an important point.
(3) Since there is nothing special about the choice of return on equities in a funding valuation, and the range of outcomes is so wide, you lose nothing by dispensing with this assumption entirely. The choice of amortisation period for the solvency deficits (or perhaps surplus) gives you all the funding flexibility which you need.

The arguments in favour of this approach, in the paper, are so compelling that I would be surprised and disappointed if the approach is not embraced universally by the Profession within the next few years, and I would urge the Pensions Board to make application of the key ideas mandatory.

My only reservation is the focus on the idea of assessing the covenant of the sponsor. My view is that, if you have a strong sponsor with a good covenant, then you should fully fund the pension plan, and if you have a weak sponsor with a weak covenant, then you should have already fully funded the pension fund.

Mr S. F. Yeo, F.I.A.: The views I express should not be taken as representing those of my partners nor of my former employer. I agree with much of the paper, especially the calls for better communication and improved guidance for actuaries and the comments on amortisation.

I have two main concerns, the first of which is that, in the words of Alan Pickering: "I want to see more pension and less prescription." I fear that the authors' call for more rigorous tests of solvency will move us in the opposite direction. The second relates to who is going to set the statutory funding objective.

First, on the more pension, less prescription question, I note that the actions in ¶9.2.1 all relate to protecting current pension promises, and that none provide any encouragement for a company to establish or extend a defined benefit scheme. In the wake of the Pension Commission's First Report, it would be unfortunate if the best that the Actuarial Profession could do would be to preside over the decent burial of defined benefit pensions. Even if we are not certain that legislators are listening, we should not miss an opportunity to call for defined benefit pensions to be supported and encouraged. If we are going to do any lobbying, we should call for LPI to be removed.

Considering the second point, in ¶2.4.1 the authors tell us that MFR is "now widely regarded as weak", yet, in the House of Lords on 13 September, Baroness Hollis estimated that, at December 2003, 45% of pension schemes were less than fully funded on the MFR basis. She

failed to answer, no fewer than four times, whether the statutory funding objective would result in the same, less, or more money being paid into pension schemes. So, the Government does not seem to regard MFR as weak. In the Regulatory Impact Assessment for the Bill, the DWP assert that: "the impact [of the SFO] on the assessed overall level of scheme underfunding would be broadly unchanged." So, we know that the regulators do not think that the MFR is weak. Whilst the authors might regard the MFR as weak, it is not necessarily widely shared by the people who matter.

I am all in favour of a clear and reasonably strong statutory funding objective, not least because, without one, unscrupulous scheme sponsors will be able to exploit the existence of the PPF, as the authors themselves envisage in ¶7.5.4, but I want the basis for it to be laid down by the Government under the authority of Parliament. I do not want it to be defined in Brussels, nor do I want its definition to be delegated to the Profession nor to individual actuaries.

Mr C. A. Speed, F.F.A.: The focus of the paper is undoubtedly on disclosure. It is important to step back and to think about this in a wider context of discussions which have previously been held here. In McLeish & Stewart (1987), the authors argued for a method that focused on accrued benefits. In a lively debate, they were roundly condemned by every single actuary who spoke, on the grounds that they were targeting early leaver accrued benefits, and these were insufficient. Everyone said that you should aim higher, because the aim was to provide security for members, and the early leaver benefit, at that time, was deemed not to provide sufficient security. Opinion was expressed that, if you only provide early leaver benefits, you have failed. Some speakers said that they wanted better protection written into the schemes to increase early leaver benefits. We have been trumped on that. There has been legislation.

Let us delve back into that debate one more time. There was a quite poignant analogy made. Someone described funding a DB scheme as analogous to flying an aircraft from London to Paris. On taking off, the plane would gain altitude and fly high above the sea level, and, in this analogy, the sea level represented funding at the level of accrued benefits. It was argued that it was appropriate and sensible to fly high, as height could always be lost in a controlled manner when coming into land. Today, in terms of this analogy, we ought to warn those travelling that they are no longer aviators, they are submariners. Unfortunately, I do not think that the message is out there as clearly as it should be.

We have tried to express ourselves clearly in the paper. Unfortunately, at times, it seems slightly too robustly for some. However, I feel that the arguments which we have put forward are strong, and will stand the test of time. We have been careful to talk primarily about disclosure, and not to stray onto *insisting* on things happening, because we are aware that certain decisions fall beyond the remit of the actuary, and legal scope must be considered.

I think that it is important that we provide information to all interested parties on the security provided by the scheme's assets, both currently, and the security provided by the targeted level of funding. This information, split by class of member, is necessary, so that those whom we advise can properly discharge their duties.

Mr T. W. Keogh, F.F.A.: These views are my own and not my employer's. I support almost everything in the paper, and I particularly like the fact that it sets out clear arguments on policy issues without a formula in sight. These are the sorts of issues which need debating in this Hall, not the finer points of modelling techniques.

The paper challenges us to change the way in which we communicate scheme funding to clients. It may also change the actual contributions paid, but the key is the communication, and I do not apologise for repeating what several other people have said. We simply cannot go on telling clients that there is enough money in the fund as long as the music does not stop. The music is going to stop for millions of members as schemes close down. It is a bit late to try to turn around that process. It is our job to ensure that this happens in an orderly way. I do not advocate 100% solvency funding, but, if the target is 80% solvency, we must say so in the

executive summary of every report which we write and in every member communication on the subject.

I am also not particularly interested in how we got here, or the large number of wrong turnings that the U.K. pensions industry has taken along the way. Where we are is that most schemes have a finite life, and the Government has got fed up with the theological debate about what the pensions promise is, by spelling it out through the buy-out debt rule.

There may be open schemes and discretionary benefits around, for which a different approach is appropriate, and I am all for the big picture debate, perhaps coming up with ways to have more of them, but I think that open schemes and discretionary type benefits will be the exception, not the rule. What the Profession needs to do is to focus on dealing with the majority of cases.

As well as advocating that individual schemes and actuaries start to adopt solvency related funding targets, I call for the Profession to give more support to this than it has thus far. Both Presidents called, at the start of the month, for a strong Actuarial Standards Board, which would guide actuaries on their approach to difficult issues, and this seems a pretty good place for it to start.

I recognise that this represents a complete U-turn from the current situation in pensions, where, smarting from being exploited by the politicians, we now take every opportunity to distance ourselves from any suggestion of minimum funding standards; but I do not think that that will do — the MFR has failed us, but that challenges us to come up with a better standard, not to abandon the field to either the regulator or to each individual's conscience.

These are difficult issues to raise with clients, and one way in which the Profession can help people stand up to the pressure to give weak advice, is by supporting the setting of robust standards, not by passing the buck. That is part of the Profession's job, and, I wonder, sometimes, whether we have forgotten that.

Mr R. Mody, F.I.A.: October 2004 will no doubt be remembered for the publication of two important papers. I am pleased, for the sake of my work/life balance, that the paper is somewhat more succinct than the Pensions Commission's report. Both reports, though, are at risk of leading to unintended consequences, despite their clear aims.

I am supportive of some of the key points in the paper, but this subject is a complicated and commercially delicate issue. Like previous speakers, I welcome Mr Gordon's opening remarks on what the paper did and, more importantly, did not contain. In particular, the paper is focused on disclosure around the solvency position, but there does remain a risk that it will be misinterpreted inside and outside the profession, and lead to greater pressure to force employers to actually fund at full solvency level. Indeed, there seem to have been mixed views already expressed so far in the discussion about whether the focus is on disclosure or on funding. The consequences of a short-term shift, along the lines of full solvency funding, could be catastrophic, not just for U.K. plc, but also for pension scheme members. Given the risk of misinterpretation, this discussion needs to be held in the context of a changing legislative background, and we should encourage the Government to take a more active part in the debate, particularly if we have concerns about the Government not being clear what it wants.

As part of taking this discussion forward, we should reinforce the message that the objective is not necessarily full solvency funding, but, instead, is disclosure of the solvency position. However, this disclosure needs extremely careful handling. What will it do for a pension scheme member's confidence, and his propensity to save, to know that his scheme's solvency coverage is 75%, say? The chance of that member ultimately receiving his benefits in full may well be very high, but the solvency disclosure, in itself, does not convey that.

The other issue here is that the funding challenge rests crucially on the role and legal responsibilities of the trustees. The outcome of this discussion should form the starting point of any funding discussions with trustees. At my firm, my colleagues and I were encouraged, in a recent meeting with major law firms, by their strong consensus that, in most cases, trustees can, and should, take a view based on the employer being a going concern.

I am supportive of an informed debate, and would encourage us to ensure that both the legal profession and the Government take an active part in taking it forward.

Mr P. Lofthouse, F.I.A.: The paper goes too far in several ways. It goes too far in asserting that solvency measures alone are important. The Government's action, in 2003, has reduced the importance of this measure, by ensuring that employers have to use all the other resources at their disposal to satisfy pension promises. The pension fund no longer stands on its own, and it should not be measured on its own, as though it were the sole source of pension provision. It is not. Company accounts now need to provide the information required to measure the overall position, and compare the liabilities with the employer's total resources.

GN9 ensures that the member is given plenty of information on the short-term solvency position of the scheme, but a report on the scheme alone cannot now give the complete picture, because of the additional liability which the employer now has. The authors appear to react to the Government's decision to increase security by suggesting that, therefore, even more security must be delivered through the pension fund. They want to go further than the Government.

The paper goes too far in ignoring the trustees' obligation to strike a balance between the interests of the members of the scheme and the interests of the employer. In practice, pension schemes embody a delicate compromise between employers and beneficiaries. The paper ignores this, saying that trustees have been weak, because they have not used their powers to strengthen the position of the members. If they had acted in this way — and I doubt if they could have done so properly — employers would have reacted, and pension provision would have been much less generous.

It goes too far when it urges the Profession to be political, rather than professional. I believe that the authors' desired principles and their suggestions for lobbying would, if adopted, have the effect of further discouraging DB provision. Our approaches to the Government should not be political lobbying, they should be professional; for example, we should try to help it to find ways to encourage employers to offer different types of pension schemes, hybrid schemes, for example, providing risk-free core benefits, but with the ability to invest significant parts of the overall package more freely.

It goes too far, way too far, in its short-termism. To find an actuarial paper which focuses on the next three years, and, in large measure, recoils from giving advice on what might happen more than three years away, is, to me, very saddening. Our job, as actuaries, is to try to describe the uncertainties facing schemes in the long-term future. It is not easy, but it is our job.

It also goes too far in underestimating the intelligence of the member, and the abilities of this profession. I believe that a scheme can be funded allowing for some part of the expected equity risk premium, provided that the consequences are properly communicated, and the short and medium-term solvency pictures explained, which I have been doing for some years. The authors seem to think that an actuary is incapable of producing a communication covering these issues which a member could understand, something with which I profoundly disagree, and I know several trade union leaders amongst my clients who would take issue with that, too.

The authors see a future in which the Profession has abdicated from its responsibilities and no longer uses many of its actuarial skills in dealing with pension schemes. They seem to have found advising on uncertainty too difficult, and are giving it up. In their brave new world, the pension actuary's role will be very minor indeed, perhaps processing buyout quotations, or doing a few simple sums based on gilt yields, but not giving advice about long-term uncertainty. Advocating my retirement will no doubt strike a chord with my colleagues, but retiring the whole profession is a different matter. That is going too far.

Mr J. Goford, F.I.A.: With a significant change of tone, this is a paper which I would broadly support, in that it reflects the appropriate changes following the transformation of discretionary benefits into guarantees. I support, in that changed environment, the appropriate measure of insecurity being solvency based.

That having been said, I then ask: "Is there any justification for underfunding relative to a

solvency standard?'' Why would society allow the security of pension benefits to be different from the security of life insurance benefits? To both life customers and employees, in their current state, mostly, of ignorance of their benefits, let alone the security of their benefits, there seems little reason for a different level of security for life customers and employees in pension funds. Why would not the new pensions regulator go down the route of risk-based regulation, of realistic balance sheets along the lines of the paper, of internal reserve assessments to cope with asset mismatches, and of additional reserve guidance, when the regulator does not like the number you first thought of? The current state of understanding on the part of employees can hardly allow a lesser level of security. Incidentally, risk-based regulation will also bring sharply into focus the question, as to why widget manufacturers should take longevity risk at all, when there is an insurance industry that knows rather more about it.

It strikes me that the only justification for underfunding relative to a solvency standard is if it is with the full and informed consent of the employees — to the extent that the employees voluntarily lend money to their employer, because the employer cannot cover the deficit from its own net assets and needs the money for the business, and cannot, or will not, raise it in the market. What is the credit rating of such a borrowing forced on unsuspecting employees? It comes pretty low in the prioritisation order on winding up. An alternative is to reduce benefits, so that an employee may have a secure, say 60%, of the benefits in the scheme booklet, rather than a current 60% chance of getting all of the benefits in the scheme booklet. With a secure 60%, the employee can plan to make up the shortfall; with insecurity, he or she cannot plan for retirement.

Further, I would advocate an insecurity index of total solvency liabilities (including a reserve allocation to cover the asset mis-match), less assets divided by total liabilities. It would be salutary for the PPF to advertise its own insecurity index, regularly, to demonstrate how the insecurity of all employees receiving benefits from the fund increases as an even more insecure scheme joins the fund. The PPF levy on schemes could also be related to their insecurity index. Such an index, well communicated through the whole chain from the employees covered by the PPF to the trustees of schemes being levied, would bring home the essence of the social benefit of the fund, and provide a good example of communication to all schemes, which should be encouraged to do likewise, to tell the employees how insecure their benefits are.

I note that, if this insecurity or own credit risk index had been factored into the calculation of pension mis-selling claims, one wonders how many billions in compensation would have been saved by the life industry.

Mr S. J. Jarvis, F.I.A.: The paper is correct in telling us is that there is now widespread misunderstanding by our clients, and much of this probably derives from the use of 'ongoing funding' measures.

When I entered the profession eight years ago, it was still *de rigueur* for actuaries to use an 'actuarial value' of assets in funding reviews. Exley *et al.* (1997) opened our eyes to the problems that this raised. Practice has now improved, to the point where it is now untenable for an actuary to use an actuarial value of assets. I hope that continued improvements will make it unthinkable for actuaries to use 'ongoing' targets, instead of referring to solvency, in the future.

It has taken us a while to explore this new market terrain. Surely, the most salutary and educational experience of the last few years has been seeing schemes wind up with insufficient assets to cover their liabilities. The risk of this happening, coupled with the knowledge that you probably will not see an insolvency coming until it is far too late, make the paper's focus on solvency and the solvency of pension schemes completely understandable and commendable.

The clearest response to this experience has probably been the Profession's 'freedom with disclosure' policy. Since March 2004, a solvency estimate has been required in valuation reports. I suspect that the main controversial element in the paper is, therefore, the proposal that this freedom be constrained; the authors ask that all funding plans be expressed in terms of solvency. They are very clear that a funding plan need not be solvency, but argue that the transparency that solvency brings has many benefits.

I fully agree. It is difficult to explain to trustees the risks in their scheme if, at the same time, we are focusing their attention on a funding target which purports to place a different value on the scheme's liabilities. As ¶1.4.2 reminds us, and as we have heard several times in this discussion, using an 'ongoing value' as an intermediate step in the funding process has confused any distinction which we might hope to draw between valuation and funding.

Actuarial magic can look very impressive if you are performing on a darkened stage, and the equity market is providing a steady supply of rabbits. However, we are now on a highly illuminated stage, and our actions are quite rightly subject to increasing scrutiny. It is in the Profession's interest, as well as in the wider public interest, that actuarial practice becomes fully transparent and focuses on solvency.

Mr P. D. G. Tompkins, F.I.A.: As Mr Sykes said, the paper should help us to move on from the debate which has probably, to some extent, passed. More importantly, the paper produces, in ¶7.1.2, an opportunity for us to discuss a set of principles which we have not actually discussed in great detail. I am pleased to see these principles opened for discussion, and I hope that they conform with some of the work already going on.

One of the key elements of the discussion, which we have heard from a number of contributors, is the need for us to move on, particularly in our language, from phrases such as 'ongoing valuation', which the authors, in Section 6, correctly suggest is an unhelpful way of describing things, and that we should talk, instead, in terms of funding reviews, and so forth, as, indeed, in the discussion on the principles, set out in Section 7.1.

One of the problems which we now face is that, with so many closed DB pension funds, we have the issue of promises which people have for their future pensions, which, on the face of it, are going to be very difficult for the employers sponsoring those plans to deliver, and society has to form some view as to how we can deliver a reasonable level of income to people in retirement in relation to the level of funding that we currently have.

We, as actuaries, have the potential conflicts of interest which are addressed in Section 8.4, where the authors suggest that, perhaps, conflicts do not necessarily arise where there is a common commitment between the trustees and the employer in relation to funding to full solvency. "Over what period?" I would ask. Is funding to full solvency over three years acceptable, or five years, or ten years, or 20 years, or 30 years, or 40 years? What are the patterns of cash flow that are going to be acceptable between employers and pension schemes, to the members who were hoping that those pension promises are going to be met? We, as a Profession, have some very big questions to ask ourselves, as we try to deliver a reasonable level of cash flow, at the moment, into pension schemes which will deliver decent cash flow into pensions in the future, and I would encourage considerable debate around Principles 1 to 10. I would also suggest considering narrowing down these principles to a slightly smaller set of mutually distinct principles, on which we can focus in the new guidance that will replace the current guidance note GN9.

Mr D. G. McCarthy, F.I.A.: I am one of these people who is fortunate enough to be able to wear two hats, so, I am going to take off my actuarial hat, and am going to wear my economist hat.

I am pleased that the paper acknowledges that asymmetric information may affect the ultimate optimum asset allocation of pension assets, and that it recognises that price does not necessarily equal value for all participants in incomplete markets, such as those for pensions. Both of these are advances over previous thought on one side of this debate. The one thing that is still missing is the word 'marginal' in value, but I am sure that we will get there one day.

The paper is more important for a fundamental reason, because it highlights the great challenge which is currently facing professions everywhere, including our profession. A fundamental aspect of all professions is the collective setting of entry requirements, in our case the examination system, and the collective setting of standards of practice by which members must abide. We only stand together as a profession collectively. They are our property collectively, and it is only in

exchange for this standard setting service that the public grants us the legal monopoly over the services which we perform. The profession is essentially an exchange. We agree to have these services, and, in exchange for that, we are permitted to collect rents, and those rents give us an incentive to gain useful knowledge, and we offer the public some assurance that our services meet minimum standards in exchange.

However, this collective standard setting imposes both benefits and costs on us as individuals, and it imposes both benefits and costs onto the public. The benefits of common ownership of standards are clear, because they allow us to collect these rents. But are there costs? To my mind, David Hume's analysis of common goods is as valid to the Actuarial Profession today as it was to the draining of marshes in the common lands of English villages in the 18th century: "The tragedy of the commons relates to the remorseless decline in the quality of assets which are owned in common but which are maintained by individuals who must pay the entire cost of maintenance themselves and who must compete with each other in doing so."

Our profession has survived thus far, and all professions have survived thus far, because, overall, the benefits of common ownership have outweighed the costs to us personally, and, crucially, to our customers, and that is the public. If this is to continue to be the case, we need to solve the common good problems which we face: in the provision of actuarial standards; and in our education system.

Economics provides two paths by which common property can be maintained in an economically efficient manner. The first is private property rights, and, in the context of a professional body with common professional standards, I do not believe that there is a feasible way to provide private property rights over our common actuarial standards. The second way is centralised standard setting. That is similar to the provision of other public goods, such as defence, old age security, and various other things.

Therefore, I would second the proposal which I heard earlier, that we set up an independent body to govern actuarial standards, and, crucially, that this body has representatives of both the users of the numbers which we produce as well as of those who produce them. Other professions have followed this strategy. Our strategies for dealing with the education system are not relevant to this discussion.

Mr D. J. Hughes, F.I.A. (closing the discussion)**:** If the authors had simply said that actuaries should assess the solvency of pension schemes on a wind-up basis with prudent allowance for mortality improvements, and that they should communicate the result clearly to members, trustees and sponsors, then there might not have been much discussion. After all, we already have GN9, which says much of this. We have annual accounting disclosures, we have debt on employer regulations that are well-known to sponsors, and Ms Beaver described further work being done by the profession in these and related areas.

Mr Gordon tried to focus us on the two key issues for him: that our standards need revising in order to avoid possible misinterpretation; and that funding targets should be clearly related to solvency. However, many readers of the paper and speakers thought that the paper ranged rather wider than this, and the discussion has too, but maybe that is not so much of a bad thing.

There is a great deal of agreement about the history of how we have got to where we are. Mr Thornton reminded us of the creeping costs ratchet. Mr Greenwood gave us some useful estimates of where that ratchet may have taken us in the scale of costs. Mr Yeo suggested a possible way back, via the removal of LPI. Turning from the past to the future, many speakers welcomed the focus on solvency. Several said that solvency must be paramount. One speaker spoke of the 'security index', which might be a natural target of risk-based regulation. There was mention of the Standard & Poor's rating of pension funds. So, solvency is going to be prominent in our discussions.

It was Mr Duval, perhaps alone among the speakers, who has actually worked through what the solvency proposals might mean for three schemes. I thought that this was important for understanding how the proposal would work, and important for the debate on the practicality of

some of these ideas. We need to know more about the workings of a thorough-going solvency approach before we can do what Mr Keogh wants us to do, which is not to pass the MFR buck back to someone else, but to develop proper actuarial standards, perhaps via an Actuarial Standards Board.

I welcome Mr Cooper's view of our actuarial valuations, describing them as funding targets, not strictly comparable with a market type of valuation. I thought that Mr Carne was also helpful in reminding us of economists' projections and the expressions of uncertainty which regularly accompany them. Why, then, should our own projections be interpreted any differently?

There was much discussion on the actuary's role in giving advice. Mr Phillips described the full disclosed levels of funding that feature in his valuation reports, and the way in which this has encouraged beneficial debate with trustees and sponsors. I hope that Mr Thomas found that useful, too. He encouraged actuaries to lead the discussion with trustees, and he encouraged the profession to empower actuaries to give advice that will inform discussions of members' interests.

There has not been much discussion on what was, perhaps, the largest part of the paper, the critique of funding methods and funding principles, but Mr Tompkins suggests that we could usefully work these up or boil them down — one of those two — for further discussion. That seems an essential next step, if those principles are going to be developed and adopted by working actuaries.

Mr C. A. Cowling, F.I.A. (replying)**:** Some speakers have commented on affordability, and suggested that adopting the principles in the paper would have dire consequences. I suggest that this is a red herring. We are not necessarily advocating 100% solvency funding for all pension schemes, nor are we presuming to take away from trustees or companies the decision on the appropriate level of funding, nor are we taking on society's or the Government's role in deciding which benefits should be guaranteed and which benefits should not. We are simply suggesting that funding objectives should be expressed unambiguously in terms of solvency. It may be that all parties can agree on a funding objective of 80% of solvency, for example, or 50% solvency coverage for active members and deferred pensioners. The point is that this funding objective is clear, and not open to misinterpretation.

Some speakers did not like the principles outlined, because they view the actuarial valuation as a contribution budgeting exercise, where the aim is to enable the liabilities to be met over a long (sometimes indeterminate) period in the future. Such a view may have been appropriate once, but the world has changed.

We have been accused of using '20-20 hindsight' to be critical of past practices. I suggest that we are critical of applying past practices in the current environment. I am happy to stand here and say, for one of the schemes where I am Scheme Actuary, that I still apply the discounted dividend method of valuation, and I still apply smoothing. However, that scheme is 150% solvent, and has sufficient bond investment to cover its solvency liabilities, and we have never lost sight of solvency. The point is that it is the application of principles, which may have been entirely appropriate in a different environment, applied in an environment today where, unfortunately, the large majority of schemes fall way short of 100% solvency, that we are very concerned about.

Recent legislative changes mean that pension scheme liabilities are corporate debt. Do not just take my word for it — read what the likes of Merrill Lynch, UBS and Standard & Poor's are saying about pension scheme deficits.

Pension benefits are no longer aspirational; they are contractual — and, please note, I refer to pension benefits being contractual, not 'guaranteed'. There is a difference. The trustee's role is no longer to manage a fund targeted at producing a desired level of benefits, it is about managing the collateral which is backing promises made by one party (the employer) to another party (the employees). Whatever they were, pension promises are now contractual, and should be treated as such. It is for the Government to change the nature of promises, and to take away guarantees if they so decide. We suggest that it is not our responsibility.

Trustees should, therefore, behave in the same way that a bank would behave in managing the collateral put up for a commercial loan. You would not see a bank calculating appropriate levels of collateral by anticipating future excess investment returns from risky assets. Neither should trustees. The level of collateral considered appropriate by trustees should be measured as if the debtor were to default — i.e. on a solvency basis. A 'traditional' actuarial valuation, which does not focus on solvency, is no longer of any use to trustees.

Similarly, companies should now view pension liabilities as part of the capital structure of the business — they are debt, and should be valued as such. A company cannot reduce the cost of long-term liabilities (including pensions) by anticipating future excess investment returns from risky assets. Moreover, a company does not plan to default on its creditors. So, in assessing the cost of its pension liabilities, it makes no sense for a company to allow for default risk. Again, we return to a solvency type basis as the only sensible measure for a company to use —a 'traditional' actuarial valuation is no longer of any use to employers.

I thank Ms Beaver for giving us an update on Pensions Board activity; but we need to change — not just because it is in the interests of our Profession that our professional standards are absolutely sound and our advice is beyond any possible reproach. We need to change — not just because it is in the interests of our corporate clients, who are trying to work out how to meet their ever-growing pension liabilities. (Simply presenting these liabilities as being smaller than they really are is of no benefit to anyone — it is just papering over large cracks.) We need to change — not just because it is in the interests of our trustee clients — the approach outlined will make their duties and obligations much clearer.

We need to change — because, we owe it, as Scheme Actuaries, to the pension scheme members who put their trust in us, as the professionals most obviously responsible for giving them clear information on the safety of their pensions and ensuring that, as far as possible, their pension savings are properly protected.

Recently we had a weekend break in Somerset, and were walking around the grounds beneath a castle, when my son turned to me and pointed to a man in the distance: "Look, Dad", he said, "there's the best farmer in the whole of Somerset." "How do you know that, Tom?" I replied. "Well", he said, "he's a man out standing in his field". We are men and women outstanding in our field of pensions. Like that farmer, we are the trusted experts in our field, and, like that farmer, there are many people relying on us for the delivery of some of life's basic essentials. Times have changed — not just in farming — and so must we. We believe, as Scheme Actuaries, that we should do what we can to ensure that pension schemes are properly funded. Where, for whatever reason, this is not possible, we believe that we should do what we can to ensure that there is absolute clarity, particularly amongst pension scheme members, on the level of under-funding and the risks attached to members' benefits.

I hope that our paper leads to some much needed change.

The President (Mr M. A. Pomery, F.I.A.): I want to comment on one point that was made by one of our visitors, who suggested that the Profession acts to protect the employment of actuaries, and then one of our other visitors mentioned a business opportunity for us. I would stress that the Profession acts in the public interest, and that meetings such as this, where we debate contentious issues in an open manner, are a good example of that. Indeed, Sir David Tweedie, who is one of our Honorary Fellows, and Chairman of the International Accounting Standards Board, told me recently that he knew of no other profession which had meetings like this, and he thought that it was one of the great features of the Actuarial Profession that we had these open debates on issues.

Thank you to all the speakers, and a particular thank you to the opener, and to the closer. I ask you to join me, in particular, in thanking the three authors. I think that they have given us a splendid paper. The size of the audience and the long list of the people who wanted to contribute to the debate is a tribute to their work, and a tribute to their bravery in writing the paper.

WRITTEN CONTRIBUTIONS

Mr R. S. Bhabra, F.I.A.: The paper raises important issues about how well occupational pension schemes should be funded. This, of course, is not a new issue — funding of DB schemes has been a major political issue since the early 1990s, when the Maxwell scandal erupted.

It raises questions about how actuaries should frame their advice on funding. The media have reported widely on the paper, and, rightly or wrongly, the likely external perception of these reports is that it calls for DB schemes to be very securely funded. In many ways, how securely pension schemes should be funded is a far more important question than how actuaries frame their advice. Indeed, the latter is necessarily influenced by the former. So, let us consider briefly the question of how much security is appropriate. Whilst actuaries can be expected to have strong views on the subject, where you draw the line has wide ranging political, economic and social implications. This is, therefore, a question of national importance, and, as such, it is one for society as a whole.

To date, elected politicians representing society have determined that absolute security is not the aim. Parliament looked at this question in the mid-1990s, and voted for the Minimum Funding Requirement, which falls considerably short of absolute security. Whilst new legislation coming into effect in 2005 is likely to raise the bar, politicians are again heading towards similar conclusions — the PPF will only provide a proportion of members' overall benefits, and it looks as if the new scheme specific funding requirement will not call for absolute security.

I, for one, would side with the thinking of politicians on this matter. Absolute security might be a noble aim, but it simply would not work. In the words of Alan Pickering: "If you build fortresses around DB schemes, those fortresses will only serve to keep people out.'' Put more bluntly, any requirement to fund DB schemes on a very secure basis will simply kill them off.

Is killing off DB schemes the right answer to today's pension crisis? The Government estimates that about 65,000 pensioners have lost all, or part, of their pensions as a result of underfunded schemes being wound up. These 65,000 pensioners will no doubt sympathise with the notion of absolute security, but we should not forget that DB schemes have served millions of people very well over the years. The so-called pension crisis which we face today would be on an altogether different scale were it not for the role played by DB schemes.

That is not to say that leaving DB schemes largely unchanged is a sustainable solution, nor that a defined contribution (DC) alternative has no role to play. However, as Adair Turner comments in his recent report (Turner, 2004), DC schemes place huge risks on individuals, many of whom are ill-equipped to take those risks. As Turner hints, the way forward is probably through more widespread use of new types of pension schemes, which share risks more fairly between employers, employees and the state. For such schemes to become more widespread requires a change in the momentum towards DC. Perhaps the full Turner report, to be published in 2005, and subsequent Government actions will act as a catalyst for such change. You can be sure, though, that making DB provision more unattractive for employers will not help.

It is in this context that I argue against aiming for absolute security, as the price of pursuing this will be to kill off DB pension provision. The Profession has an important role to play in influencing politicians who make decisions about how much security is acceptable. We should continue to encourage the Government to come clean on how much security members of schemes can expect, and we should all do what we can in our day- to-day work to help those with an interest to understand better how securely funded pensions are. What we should not do is to create a framework which attempts to take security of members' benefits beyond the intentions of the Government.

References

TURNER, A. (2004). Pensions: challenges and choices. First report of the Pensions Commission. www.pensionscommission.org.uk

Mr N. J. R. Curry, F.I.A.: Whilst I support the view that the Actuarial Profession should lobby for better information to be communicated regularly to members on pension scheme solvency, I have practical concerns about a number of the suggestions put forward in the paper. In particular, the suggestion in Section 9.2, that the Actuarial Profession should seek to influence the new regulator, to ensure that funding objectives are defined by reference to solvency, could (when taken in conjunction with the 2003 E.U. Pension Funds Directive) lead to a situation in which all schemes are required by the new regulator to set a funding target by reference to 100% solvency, determined on a basis of similar strength to a buy-out basis. I understand that this is not necessarily the authors' intention. However, such a scenario could be an unintended consequence of their proposals.

In current financial conditions, 100% solvency by reference to a buy-out basis (even with life office profit margins removed) would represent an unaffordable funding target for most pension schemes. Estimates for the total size of the current funding shortfall, by reference to buy-out for U.K. private sector pension schemes, vary, but figures of the order of £300 to £400 billion have been quoted, and do not seem implausible.

The authors also advocate penalising equity investment, by requiring pension schemes which hold equities to set an even higher funding target, and recommend that creditworthy employers sell their equities and invest their schemes in bonds. I estimate that U.K. pension schemes currently have approximately £225 billion invested in U.K. equities and approximately £170 billion invested in overseas equities, so I, too, would anticipate 'some turbulence while markets cleared'.

Funding an aggregate shortfall of this size, or making an asset switch on this scale, would have profound implications for the U.K. economy and U.K. plc. The public interest would require the macro-economic effects of such changes to be considered in some depth prior to implementation, and, at the very least, for there to be a long transition period, to give pension schemes, companies and financial markets time to adjust.

The authors cover related issues, such as the adequacy of capital markets and affordability, very briefly, in Sections 6.5 and 6.6. However, they do not address the key issues. There is risk that setting a significantly higher minimum funding target would reduce the amount of pension provided to the U.K. public and reduce the security of pension scheme members, through:

— more U.K. companies becoming insolvent, due to unaffordable contribution demands or through them becoming more highly geared as a result of their 'retiring equity and issuing debt';
— weaker U.K. (and to a lesser extent overseas) equity prices, through more pension schemes switching from equities to bonds and larger reported pension shortfalls being recognised by shareholders;
— as a result, more U.K. pension schemes falling into the PPF and potentially undermining its finances; and
— less pension being provided to the U.K. public through: fewer new pension schemes being established; the termination of future pension accrual in existing schemes; company insolvencies; and a further loss of public confidence in occupational pension scheme provision.

The above issues need to be explored in more detail, with the assistance of economists and corporate financiers, so that there can be an informed debate, both within the Profession and externally with the Government, companies and the public.

My current view is that the existing level of pension guarantees written by U.K. plc will only be sustainable if the U.K. economy continues to grow, and U.K. plc continues to be successful. It would, therefore, be unfortunate if changes to pension scheme funding targets and asset allocations undermined these desirable outcomes. Many people have commented that there is no such thing as a risk free DB pension scheme. The question is not, therefore, whether or not such schemes should accept risk, but the balance that should be struck between risk and affordability. This is rightly a question for the Government, rather than the Actuarial Profession, not least because the PPF will have to pick up the cost of company and pension scheme failures.

The Actuarial Profession has developed asset/liability modelling techniques to enable pension scheme trustees, companies and pension scheme members to have a better understanding of the risk inherent in any particular funding and investment strategy. From our discussions with trustees and companies, we know that, for most pension schemes, a funding target based on buy-out solvency and an investment strategy based on a minimum risk portfolio, comprised largely of bonds, would be unaffordable. I believe that the challenge for the Profession is to explain how DB pension schemes can provide a reasonable level of benefits, with affordable contributions, and subject to an acceptable level of risk to members and the PPF.

Mr P. N. Downing, F.I.A.: The long-term nature of pension provision is explicitly recognised (e.g. in ¶8.1) and there are rightly many references to mis-matched assets (e.g. in ¶6.2.5). However, in ¶6.4, the authors state: "We take it as a given that ... appropriate bond investments are the best match for pension scheme liabilities." Although, apart from the concluding phrase of that paragraph: "high quality bonds provide the least risk portfolio", there seems to be no reference to the probable impossibility of securing a durational bond portfolio which anything like matches the durational liability profile of the pension provision, particularly for a closed fund comprising a large number of pensioners and deferred pensioners with very few active members for whom current contributions are currently payable.

Such closed funds may not be over significant in terms of total liability, but are likely to be quite significant by numbers of schemes — and hence by numbers of trustee boards needing actuarial advice. Given the need to provide for increasing pension outgo, even LPI rather than unrestricted RPI (quite apart from discretionary increases), one is left wondering what shape bond portfolio, or other asset allocation, the authors would consider as 'the least risk portfolio' for matching purposes — and the size and nature of the provision required for the inherent mis-match risk.

I question the wisdom of the phraseology of Principle (1) in ¶7.1.2. Those of us who qualified in the 1960s knew what was meant by the *value* of a scheme's liabilities — and I doubt if it ever was determined on the current concept of a solvency measure! However, times and concepts have moved on — and will almost certainly do so over the next half century or so. The authors' assumption that they have now stumbled on the ultimate measure of the liabilities which will stand the test of all time is unwarranted. Please qualify all measures of determining a scheme's liabilities, including the currently in vogue solvency measure, to avoid the confusion to which they refer.

Mr G. E. Finlay, F.I.A.: Much was said in the discussion about disclosure. The paper starts with the assertion that actuaries bear some responsibility for the current poor perception of pension schemes, and there is broad agreement that communication/explanation is critical, and may have been lacking in the past. Given the complexity of pension provision, members do need to have one measure that has a reasonably objective — and intuitive — meaning; i.e. they need to know the solvency level of their scheme. For many — apart from a statement setting out their own benefit expectations — that is probably all that they will want to know, and, arguably, the only measure that comes close to being unambiguous.

This should not, however, lead us to conclude that nothing matters other than solvency. Provided — and it is a crucial proviso — that the implications are clearly explained to them, it should be perfectly legitimate for plan sponsors and trustees to determine a financing strategy that reflects other measures. Reference is made to the folly of 'funding on an ongoing basis', but there seems more logic in targeting 100% of an alternative funding measure than an arbitrary percentage of solvency — provided that the solvency position is tracked as well. In any enterprise, the holder of assets should be aware of their cash value in the worst case — analogous to a fire sale — but will not necessarily manage those assets on the basis of that valuation.

The authors would wish to deny us even the option of explaining the implications to our clients. Principle (3) in ¶7.1.2 suggests that actuaries should not advise on funding if the contribution rationale reflects anything other than solvency, thereby taking on the mantle of

lawmakers, while Principle (10) prevents us from venturing beyond the next three years, unless we commit our clients to a particular pace of amortisation of deficits (or, perish the thought, surpluses). Our responsibility should not be to dictate to others how to fund schemes, but to explain clearly to them the long-term financial implications of the approach that they wish to adopt. Several contributors have referred to the public looking to the Scheme Actuary to protect their benefits, but this is not his role — rather it is to advise the trustees in ensuring that the scheme is operated — and thus funded — in accordance with the documentation and any overriding legislation.

The authors assert, in ¶2.2, that "... benefit security is the key reason for funding a pension scheme, and that this is generally recognised ..." I have no doubt that one of the reasons for funding is to enhance security, although, whether it outweighs other considerations is at least worthy of debate. However, to then proceed to the conclusion that "... the primary purpose of funding ... is to achieve benefit security for members" is a logical leap too far.

The authors also state, in ¶2.3.3, that, because equities attract a lower rate of tax in the hands of typical shareholders than bonds, this creates a shareholder preference, all else being equal, for the pension scheme to invest in bonds. However, all else is not equal — and a more efficient strategy may be not to fund pensions at all, but invest internally in other projects — where even the risk adjusted rate of return may be significantly higher. High levels of funds in the trust are not the only way of securing benefit entitlements in a world where the plan sponsor is committed to deliver the pension promise unless bankrupt. Pensions are now effectively a contractual commitment between employer and employee, so decisions over how to fund these pensions — both in the sense of what investments to use and of how much of the company assets to apply — should (allowing for legislative minima) be increasingly an employer decision.

I agree with the authors that the solvency level is an essential piece of information. I am also prepared to accept that funding for a given solvency level is a reasonable target, even if that target is less than 100%. However, determining an approach to funding the scheme is not the same as a solvency valuation, and I am very uncomfortable with the notion that this is the only acceptable way of defining a funding target.

Mr M. N. Godwin, F.I.A.: As with many speakers at the meeting, I welcome the improved disclosure that the paper's adoption would bring. However, this development is not without its problems, and the market will be in need of a clear explanation of the issues raised. Mr Goford touched on the issue of consistency of standards between life and pensions. I am a life office actuary, whose primary interest in pensions has been as a member of a final salary scheme. In recent months, I have also been assisting development of our Individual Capital Assessment (ICA), and would like to describe a pensions' conundrum with which the industry is wrestling. The views expressed below are my own, and not necessarily those of my office.

Example A: The life office. The ICA is the amount of capital required so that the office remains solvent under certain stress conditions. The recent Pensions Act has made a pension scheme deficit a debt on a solvent employer. Hence, a pension scheme deficit should be included as a debt in the ICA calculation. Furthermore, the liability in respect of current and deferred pensions is very similar to pension liabilities within the long-term fund, and, in some cases, the trustees could buy contracts from the employer to match these. I also note that, in the stress scenarios applied to arrive at the ICA, past service liability for active members may also be largely guaranteed, due to relatively low likely future pay rises in such a scenario.

In developing ICAs, companies have typically allowed for management actions to mitigate the impact of the stress tests, for example changing bonus rates. For future service, there are a number of possible actions to mitigate the stress tests, including increasing member contributions, reducing accrual rates and closure. For current purposes, we can, therefore, ignore any future service obligations. However, there are rather fewer options to manage the cost of past service pensions, other than changing the investment mix and removing discretionary benefits. Furthermore, trustees, not the company, control the investment strategy, hence the requirement to consider the strength of the employer's covenant. My conclusion is that, for

consistency, we should include a fully stressed pension scheme in the ICA. As we would match these liabilities within the long-term fund with fixed-interest securities, the management might encourage the trustees also to match guarantees with fixed interest.

Example B: Consistency with other companies. With the obvious exception of Boots, most companies with final salary pension schemes will have a similar investment mix to that of a typical life office scheme. New accounting requirements will result in any scheme deficits being included on the balance sheet. Adopting the recommendations of the paper would cause an increase to those deficits, as a result of valuing liabilities at a risk free rate. However, there is no requirement to include stress tests within the assessment, so, without an actual switch in investment strategy, the capital requirements for a pension scheme outside financial services appear to be lower than those required within the ICA regime. The conclusion here is that there is not a level playing field between ICA and non-ICA companies, and that the management of the latter group would be less likely to exert pressure to match liabilities.

The conclusions which I have reached are clearly incompatible, and I have yet to hear a clear argument as to why either example A or example B is flawed. I ask that the Profession, our regulator, and possibly the Government give very clear thought to this issue. I welcome a clearer explanation of the risks involved in schemes, but we also need to be conscious of the impact on the equity market and the wider U.K. economy of introducing changes which cause pension schemes to follow the insurance practice of matching what are now guaranteed benefits with fixed-interest. It may be that the improved protection afforded by the Pensions Act leads to an unintended consequence.

Paragraph 6.2.8 mentions that the funding strategy of a scheme might be 50% funded for in-service members. This would need very careful explanation to members. For example, why should employees accept 50% funding, when they could invest in a personal pension and know that the insurance company has 99.5% certainty of paying benefits? I do not envy the personnel director who is charged with explaining to employees and their representatives why 50% should be acceptable. I suspect that there will be pressure for a considerably higher level of funding than this illustration implies.

Mr R. J. Green, F.I.A.: Most of my career has been in the life industry. Clearly, the paper has direct application to the pension schemes of many life companies, and so, in one sense, I was attending the meeting as a potential consumer of actuarial advice. In that context, I support most of the content of the paper. As a life actuary, I recognise that many of the principles and recommendations have an application in the life industry. Indeed, with a few contextual changes, there are very clear parallels, where some of the related issues are being directly tackled in response to new regulation, in particular, the need to be clear about levels of security, capital requirements and likely levels of discretionary benefits.

It appears clear to me, therefore, that life and pensions actuaries will benefit from an appreciation of what is going on 'on the other side of the fence' in the coming years, and may, from time to time, gain insights into future developments in their own fields by observing some issues being tackled by the other side first. Much progress in a similar direction in the two industries will take place, although not at the same speed. Mr Goford's contribution at the meeting touched on this issue. I do not believe that the public will distinguish between life actuaries and pensions actuaries (not forgetting, of course, those who fall outside these simple groupings), and so we, as a Profession, need to ensure that our approach to similar issues is consistent wherever possible. This has always been the case, but, in this time of rapid and significant change, it is probably more important than ever.

Mr J. M. Harvey, F.I.A.: At a time when the Profession is increasingly coming under public scrutiny, we need to exercise greater caution before using phrases such as 'fully funded' and '100% funded on an ongoing basis', when, to any lay person, the position is anything but. Whilst, in the majority of cases, such advice is caveated in suitable terms, can we always be confident that this is fully understood by our clients, and, more importantly, by their members? It is time

for the Profession to take a stronger position in this area, and the ten principles outlined in the paper are a good place to start.

Mr G. R. Hibbard, F.I.A.: Rather than comment on the relatively minor areas where I favour an alternative viewpoint, I would like to make an observation concerning the measurement of liabilities. Most commentators are now comfortable with valuing liabilities on a corporate bond basis for the purposes of company accounts. If I were a trustee of a pension fund (which, incidentally, I am), I would not be comforted by valuing the liabilities on a corporate bond basis in my *funding* valuation, in that this implicitly includes an allowance for the sponsor's default; that is, that the liabilities are valued lower than the provision needed in the very situation (the sponsor's default) that the funding of the pension scheme was ultimately established to guard against. (If the employer will never default, one does not need to fund at all.) This does not mean that it is *necessary* always to be 100% funded on a GN9 style discontinuance basis, or to invest 100% in bonds: neither are, today, Government policy nor commercial reality. What it does mean is that, now that it is commonplace to value the asset side of the pension balance sheet at market value, we can only clearly communicate what the funding policy means to members (which is a Government policy objective) if we are clear about communicating what liability measurement means.

Consider the example of two otherwise identical pension schemes. The first measures its liabilities on a GN9 discontinuance basis, and has a stated funding policy of 80% of that liability. The second discounts its liabilities at a higher rate (e.g. corporate bond or other target investment return basis), and has a stated funding policy of 100% of that liability measure. In practice, the two approaches give rise to the same absolute target funding at the valuation date. One would communicate to members of the first pension fund that the sponsor provides good benefits, but that it will only target contributions to 80% of discontinuance levels, relying on hoped for future outperformance (relative to the liabilities) in the investments to make up the funding gap over time. Such a message is clear — your benefits depend, in part, on the continued health of the sponsor, and, although cash and cost are not the same thing, cash flow is a real driver to business performance.

Regarding the second, historically more common, approach, I agree with the authors that it risks misleading the average member of a pension scheme if actuaries build into the liability side of the balance sheet hoped for (or 'target') future outperformance on the asset side of the balance sheet. Keeping on the communication theme, I have not used the term 'expected' outperformance. In everyday language, 'expected' implies a certain sense of surety of outcome. Perhaps pension funds would be healthier animals today were investment managers certain to outperform liability growth!

I agree with the authors that the Profession has a responsibility to members of the public to adopt an approach to liability measurement which is, not only technically sound, but also does not risk communicating inadvertent or misleading messages to members of pension schemes.

Dr C. Keating: The paper is both timely and welcome in the pensions debate. I learned much from it. However, there are several points with which I profoundly disagree, and which appear to me to be flawed. Rather than dealing with these points individually, I propose to offer positive criticism. I propose only to make reference to schemes having a corporate sponsor, and recognise that there are material relevant differences in the case of local authorities and state sponsored enterprises, which also need consideration.

We should recognise that the pensions promise is made *ex-ante*, before employment commences. The degree to which it forms part of any negotiation between the potential employee and the employer is moot, in as much as it is, typically, a small part of the overall terms and conditions of employment, and should not be considered independently of those. It is also the point at which information asymmetries are largest. In fact, the signalling content of an over-funded pension plan is negative — why would they (existing management and employees) overfund if they perceived the business as viable?

The promise is made by the company, and, as such, it is a (time contingent) liability of the enterprise. It is not known with certainty, as it is functionally dependent upon inflation and longevity, both of which are stochastic in nature. There also, of course, other sources of uncertainty, depending upon the precise terms and conditions of the scheme, such as final salary. In my experience, the Actuarial Profession is well versed in the estimation of these future liabilities. There has been a considerable debate as to how we might bring these liabilities back to some present value equivalent. From the standpoint of a financial economist or analyst, there is simply only one discount rate for any future payment commitment, and that is the rate derived from default risk free securities, typically government securities.

The paper emphasises the fact that Government actions, over the past 40 or so years, have largely served to raise the strength of the corporate covenant, that is to say they have confirmed that this is a liability, just as a trade creditor's invoices are a liability. This should really have come as no surprise to anyone, as the incentives to Government are to offload, to the greatest extent possible, any potential future liability upon the state. Even here the situation is complex, in as much as there may be a point at which commercial enterprise ceases to be viable under the burden of state sponsored obligations.

The most obvious point is that this promise is a liability, like any other. To talk of insolvency of the scheme is meaningless, without the prior insolvency of the sponsor company. In other words, failure of a scheme is conditioned upon failure of the corporate enterprise. The promise has been made, and this is now a liability of the company. The question that naturally arises is the following: "Why should this be any different from any other creditor's claim?" There are the obvious consumer protection type arguments, but oppositely, it might also be argued that these were employees, and have contributed to the process of demise of the enterprise.

Entirely unfunded schemes are not unknown. The largest single source of finance for Germany's Mittelstand at the time of the Wirtschaftwonder was unfunded, albeit insured, pensions. Clearly, the employee has a major incentive in the viability of the firm in such arrangements.

If we are to be concerned with the security of the promise, then the most obvious simple way to achieve this is to take security over some of the assets of the company. The degree to which assets are charged will also clearly affect the trading terms of other creditors. The advent of the pension scheme and fund may be seen as a way to ring fence certain assets in the event of distress and bankruptcy. There is no reason why these assets cannot be those of the company; though it should be admitted that the value of the assets of a failing enterprise are unlikely to be those of first best values.

From the standpoint of a financial economist, it is obvious that, as we move from assets used by the company in its commercial enterprise to assets external to these, such as quoted stocks and shares, there are certain requirements which occur naturally. The first of these is that we should not move to external assets, unless those assets offer a return at least as high as the return on assets within the business. If the company were to purchase assets with a lower return, the cost is self-evident. The argument for 100% bond funding of a scheme seems to me to omit consideration of this fundamental point.

Issuing corporate debt, in order to purchase other debt assets within the pension fund, while matching assets with 'equivalent' liabilities, is not neutral. The firm is now levered differently from the situation in which returns on assets were diverted from shareholders' funds to the pension fund. Even if this were neutral, it should also be recognised that the variability of returns on assets has also altered, and with it the variability of other creditor claims and shareholders' funds.

The assets of a fund should have a return equal to or higher than the return on the business assets. The desired variability of returns (if you wish 'risk') from these fund assets is determined by the variability of assets in the business and the co-variability of fund assets and business assets, the dependence. This is clearly a situation which is firm specific, and, regrettably, no general asset allocation can follow. It is commonplace to see reference made to 'matching'. The form that this matching takes is clearly important, and, by way of illustration, I will cite the

relative costs of dedication and immunisation strategies in bond portfolios. Dedication is strictly more costly.

There is a second dimension to this, which arises from the question as to when a fund should be 'solvent'. Firstly, a fund is always solvent, provided that the sponsor company is viable — it has a claim on the sponsor company. 'Solvency', then, is a question of shortfall of explicit ring fenced assets within a fund, relative to the present value of (estimated future) liabilities, which might better be termed a deficit. The presence of a deficit can serve to align the interests of employees and the firm, which is positive. If we place explicit requirements upon the size of deficits, then we make the process of meeting the future liabilities path dependent — and it is trivial to show that this is strictly sub-optimal.

The question that should be addressed by the Actuarial Profession is a simple one: "When should a scheme be fully funded?" Unfortunately, that question was not addressed explicitly within the paper, though, at several points, there was an implicit answer of always, and, obviously, that cannot, in general, be true. In fairness, I should also add that the answer to that simple question appears very complex.

Mr I. J. Kenna, A.I.A.: A targeted defined contribution (TDC) pension with actuarial advice is merely DB with one member. As such, TDC is considerably more expensive for a group of members than DB. Moreover, in the event of the death of a member before his normal retiring date, employers' contributions under TDC fall into his estate for the benefit of his heirs. Under DB, employers' contributions are retained in the fund for the benefit of other members. The TDC member will not be satisfied with sheaves of calculations from his actuary's research department. He will expect responsible accurate advice for the £150 an hour charged by the actuary. £150 an hour represents a considerable chunk of real interest or dividend earnings in these days of low yields.

In ¶4.1.2, I was shocked to read that: "the majority of U.K. defined benefit schemes are now closed to new entrants". What a commentary on the actuaries who, in the 1980s and 1990s, advised trustees to take contribution holidays on the strength of the rising equity market, only to advise large cash injections in the 21st century.

I am puzzled by ¶7.1.2, which states that: "Assets should be taken at market value", and ¶7.2.1, which specifies: "a solvency funding level of 100% by 1 April 2013". It is a wise actuary who knows what the market value of the assets will be at 1 April 2013.

The baby bulge of the post-war period will be retiring between now and 2013. Disinvestment of shares will be necessary. Instead of what Adair Turner has referred to as 'the fools' paradise of overvalued equity markets', the equity markets will go into reverse, as shares have to be sold to obtain cash to pay pensions.

Paragraph 6.5.1, on the lack of risk free investments overall, is of theoretical interest. However, the duty of the individual actuary is to the pension scheme which he advises, and not to capital markets in general. Shares are still overvalued. The duty of the individual actuary is to advise his trustees to drop equities while they are still overpriced.

Ms F. J. Morrison, F.I.A. [who spoke at the meeting, and who subsequently submitted this amplified contribution as a replacement for what she said]**:**

1. *Introduction*

This is an interesting paper. There are some good — and well articulated — ideas; but also some great leaps to the conclusions — not logically built up nor reasoned.

2. *Big Picture*

At a high level, the paper fails to recognise the part which public policy has to play in security, funding and delivery of pensions — we currently have a major piece of legislation — the Pensions Bill — going through Parliament — which the paper almost entirely ignores.

The Profession can set disclosure standards, but it is not our money, and the Profession

cannot force companies to pay more money into pension schemes — that is for the Government to do.

Also, I was disappointed that, whilst the theory may be fine, the paper lacks a realistic link to the world as it now is. Whilst any number of theories can be put forward for why we are where we are (and I shall not dwell or comment on the sweeping, and sometimes gratuitous, criticisms which pepper the paper), it is a pity that the authors, who are all most capable, have not applied their intellect and skills more to looking forward to real life solutions that have a chance of making an impact in the future.

3. *Good Points*

What did I like in the paper?

— I have always been keen on solvency disclosure.
— The paper refers to, but could have made much more of, the need to drill down through the priority order to see which members are carrying the risks. It is a core building block to many areas of our advice — investment, risks associated with company insolvency, adequacy of contributions, etc. — to understand the risks and who really is carrying them.
— The articulation of meaningful deficit funding periods, and a recognition of what these are — a form of a self investment — and the corresponding need to understand the employer's covenant for that period, are well addressed.

4. *Bad Parts*

What I am less keen on are:

— There is the apparent indecision as to whether or not actuaries should be allowed to exercise judgement. Strong standards do not require inflexible prescription which removes all actuarial judgement, leaving the actuary as a mere calculating machine.
— The weakness of the recommended funding approach is that, even if it is suitable for the world as they currently see it, prescription can stop thinking. Further, the world can change, and a prescriptive funding standard may mask that change.
— The authors criticise what they see as fudges in the presentation of funding targets and levels. I see no greater transparency in a funding target of, say, 60% of full solvency, if it does not drill down to a sensible target for the lowest priority category, than some of the other methods which the authors have criticised. Each obscures some of the picture, it is just that they obscure different things.
— The conclusion is inconsistent with issues relating to governance of pension schemes, i.e. a recognition of functions and powers (including the limitation of powers) of actuaries.
— Some of the theoretical criticisms — that employees' pay rises are items over which employers have control, employees demanding a higher price for deficit style self-investment, and the suggestion that, in the 1980s and 1990s, employers could have reduced promised benefits, as Governments increased their quality, are, at best, naïve.
— The solutions are over simplistic, and one key piece which is missing is political risk — changing the tax breaks on corporate debt; changing the statutory funding framework, for example in the Pensions Bill; more bad cases making more bad laws; and other changes which are not even within current contemplation.
— The references to creditworthy employers are too simplistic. Even for companies which can currently raise money relatively cheaply, there is always a question as to whether money is best used, from a shareholder perspective, to solve the pension problem or for other business projects. The more money that you try to raise, the more it costs. If there were such a thing as an infinitely creditworthy employer, who could borrow infinite amounts of money at a low interest rate, then the pension benefits would be totally secure anyway, and most of the arguments in the paper become irrelevant.
— When considering adequacy of capital markets, the paper states that the total amount of risk in the economy would be unaltered, and that the risk to pension funds would significantly decline. If that were true, it must mean that the risk to others, presumably shareholders and

other creditors, would increase. This must mean a reduction in shareholder value; by failing to point this out, the paper is giving an imbalanced view.

5. *Looking Forward*

Looking forward, what I see (given where we currently are) is the need to target solvency over a planned time horizon — which will be very short for some schemes and long for others.

As a Profession, we should be looking at what this means at a macro-economic level — and working with others who understand macro-economics better than us. We are well placed to identify many of the issues, and to participate in those discussions in conjunction with other experts. As an example, given the current size of the buyout market, the very limited number of providers, and the fact that providers cannot be forced to write the business, there are some fundamental issues of national pensions policy to be addressed.

Instead, the authors, whilst recognising that some would argue that a move to full (or more than full) solvency funding over a short timescale for all U.K. pension schemes is not possible, assert — but with no justification — that they do not agree. I am more humble, and pose it as a key question for the country — and one which the Actuarial Profession can help to address and answer.

6. *Conclusion*

As a Profession, we can force disclosure, if we believe that it is right so to do. We cannot, though, single handedly, make trustees invest in bonds, make companies change their capital structures, or make companies pay more into schemes. So, I agree with many specific items within the paper, but have a fundamental disagreement with the conclusions, which I believe are non-causal.

7. *Post Script*

I wrote the above comments before the meeting. The authors, in their introduction to the meeting, stated that the paper was about disclosure, not about funding. Many of the speakers supported enhanced disclosure; we must guard against drawing conclusions which go beyond that. In other words, it would be inappropriate to extrapolate comments about disclosure as supporting a particular funding method.

Mr M. J. Pardoe, F.I.A.: There is much in this paper which will achieve widespread agreement within the profession. In particular, the emphasis on a clear communication of the solvency position, including the need to explain the broad impact of priority rules on different classes of members' benefits, both at the date of valuation and how these might change over time. However, many of the recommendations in relation to solvency are already a requirement of the latest version of GN9, and many actuaries have been improving disclosure of the solvency position in actuarial reports over the last few years. The timing of the current paper is, therefore, somewhat surprising, and it may have been more worthy of debate had it been presented several years ago.

Listening to the discussion (via the website, as I was unable to attend in person), I felt that some of the contributions from the opener about what the paper did and did not say were somewhat at odds with the paper itself. It seems to me that this paper is not just about communication of the solvency position, it is just as much about constraining funding and investment strategies.

As the paper itself, and discussion from various speakers, highlight, the Government has changed and increased the level of guarantees and commitment from plan sponsors to pension schemes over the years, to a level way beyond that originally envisaged by the balance of powers embedded in a typical trust deed and rules. This has meant that the liability for a solvent employer to a pension scheme has increasingly gone beyond the assets already held by the scheme, and, indeed, we know that, from 11 June 2003, a solvent employer cannot walk away from a pension scheme without fully securing the liabilities. This provides a guarantee of full

benefit security whilst the plan sponsor remains solvent, and the soon to be introduced Pension Protection Fund will provide some degree of security for members of schemes where the company becomes insolvent.

U.K. occupational pension liabilities are large relative to the economy. As a consequence, any change to the level of security of benefits has a material economic impact. Absolute security is, in practice, unobtainable, and the closer to absolute security it is decided that schemes should aim for, the greater the macro-economic implications. In a democracy, it is for the elected Government to decide such major national issues, not for this to be done unilaterally by individual actuaries or the Actuarial Profession as a whole. The Government has made such a decision, and since 2003, it requires solvent companies to stand fully behind their pension scheme obligations. It will also require trustees and plan sponsors to engage constructively with each other to agree funding objectives and a suitable contribution schedule. The Government legislation does not, however, state that companies need to fund their pension schemes on a full solvency basis at all times, nor has the Government suggested that funds should be invested 100% in high quality bonds. These funding and investment strategies are ones that some companies and trustees may wish to adopt, but it is not the role of the actuary to be an advocate for any one strategy. Instead, it is the actuary's role to highlight the consequential risks and uncertainty in future contributions and solvency positions of following alternative funding and investment strategies, so that trustees and companies can reach informed agreements.

Mr S. P. Rees, F.I.A.: The paper covers a very important subject, and it is good for the actuarial profession to debate this subject. It makes a number of points with which I find it easy to agree. In particular:

— it is important for the security of members' benefits to be fully disclosed (¶3.3); and
— that this disclosure should be separated, according to the category of the member (¶5.1.2).

I also agree that we, as a profession, should have been more alert to the huge additional burden placed on pension schemes by the introduction of statutory indexation on deferred pensions, and then guaranteed pension increases in payment, and to the potential effect of falling long-term interest rates. However, this would have been achieved by greater attention to solvency information, rather than, necessarily, by a different approach to funding.

However, there are some fundamental themes within the paper with which I strongly disagree. Benefit security is, indeed, an important reason for funding (¶2.2). However, the value of funding is to provide a good level of security. It might even provide a high level of security. The paper distorts this point, by stretching it to mean that funding has to provide complete security. Many of the arguments put forward in the paper depend on the reason for funding being complete security, and this undermines the validity of some of the conclusions.

Section 6 includes some comments on whether the financial markets could provide security for the pensions which have already been accrued. It touches only on investment risk, and, even in this area, acknowledges that the risk is reduced rather than removed. (I also find the expectation of the supply of suitable assets increasing to meet the demand to be optimistic, particularly in view of the existing long-dated index-linked market.) Higher amounts of assets in pension funds might, indeed, be a good thing. However, the actuarial profession must be very careful before committing to methodologies purporting to deliver security which, in fact, do not. This would be misleading to the public.

The paper deals with many of the issues regarding solvency in a perfectly sensible manner. Indeed, many of the principles set out in Section 7 are fine in the context of solvency. The argument is not complete regarding why funding should be the same as solvency, nor why the Actuarial Profession should dictate the method of funding to be used in all cases. In order to improve public confidence and understanding of pensions, it is important that we do not confuse funding and solvency.

Mr A. G. Sharp, F.F.A.: I disagree with Mr Thornton that use of the defined accrued benefit method (DABM) would have resulted in pension schemes being in a poorer financial state than they now are. Such comments only reflect a continuation of the lack of understanding of the DABM, which was all too apparent in the 1980s. Rigorous use of the DABM highlighted, even more clearly than the other methods then in use, the incremental costs of the successive layers of indexation added to pension benefits. However, what we were discussing — the assumptions to use in arriving at values and at funding costs — are, with hindsight, much the bigger story. Any of the methods currently in use will disguise the solvency, and therefore security, of pension benefits, if the basis within the method is not marked to market.

Mr A. D. Smith: I agree with Section 7.4, that pension funding is a form of collateralisation. I am more familiar with collateralisation in the context of secured lending, repurchase agreements and derivative contracts. It is helpful to recognise that funded pension plans are of a similar nature.

From an outsider's perspective, there are puzzling differences between pension funding compared to mainstream collateralisation. Mainstream collateralisation calculations use market consistent valuations, and reset collateral to nil credit exposure at least weekly. A failure by either side to meet a collateral payment triggers a default event. In contrast, pension collateralisation calculations may be updated as infrequently as triennially, they are seldom on a market consistent basis, and members seem curiously content to allow schemes to continue in deficit rather than to cut their losses and wind up. Then, of course, the outcomes are different. When a scheme is wound up on the insolvency of a sponsor, active members may get around 20% of their promised benefits, while a mainstream collateralisation process might have delivered 98% or 99%.

Actuarial collateral bases appear systematically biased in favour of sponsors and to the detriment of members. Taking credit for an equity risk premium in collateral calculations is aggressive by any external yardstick. We are asking scheme members to accept phantom collateral made up of future investment aspirations or future promised contributions. Of course, such phantom collateral proves worthless on the day when you actually need to get your hands on it.

This bias is puzzling, given that, in most cases, the actuary's clients are legally the trustees. I wonder if, sometimes, management wields more influence than it should in the selection of advisors. You are asking a lot of an actuary to risk his or her appointment by blowing the whistle on phantom collateral. Major actuarial firms may be reluctant to overhaul their practice, reasoning that they have more to lose than to gain from any implied admission that previous methodologies were unsound. Even if you clear this hurdle, a new actuary is bound by a PCS that makes it difficult to criticise a previous incumbent. Finally, the new actuary may argue that the relevant best practice standard is set by other pension schemes and by other actuaries — this is the argument cited in ¶3.2.1, that pension schemes are deliberately insecure by design. This dubious defence implies that actuaries can legitimately apply lower standards of conduct than other professionals involved in collateralisation calculations.

The best practice benchmark ought to be mainstream collateralisation, which has worked, rather than other actuarial schemes, which have failed. I hope that a new generation of actuaries can join other collateralisation experts and set future pension decisions on a sound footing, as this paper suggests.