Original Article

What are we doing with DC?

Received (in revised form): 7th January 2010

John Ashcroft

is an independent consultant, and was previously Head of Strategy at the Pensions Regulator and President of the International Organisation of Pension Supervisors (IOPS). His consultancy assignments focus on international comparisons and the development of risk-based regulation and have included work for the Organisation for Economic Co-operation and Development, IOPS, EFRP and World Bank.

ABSTRACT As 5 years of partying in financial markets has been followed by a monumental hangover, the way defined contribution (DC) pension plans expose their members to risk and volatility has been thrown into high relief. What has intrigued me is why the approach to the asset allocation of DC pension schemes appears not to have kept up with developments in defined benefit. Taking this question as a starting point, this article finds few good reasons (but some bad ones). I have been influenced in my thinking by trying, with limited success, to justify the high volatility of DC investment prevalent in the English-speaking world to incredulous pensions experts from continental Europe, where much greater emphasis is placed on relative security of outcomes. They think we must be criminal, mad or both.

Pensions (2010) 15, 82–88. doi:10.1057/pm.2010.2

Keywords: investment risk management; risk budget; lifestyling; member choice; trustee responsibility

THE ABSENCE OF A DC PARADIGM SHIFT

The post-war model of private pensions in the English-speaking world comprised by and large employer-sponsored schemes delivering defined benefit (DB) promises¹ often supplemented by defined contribution (DC) funds to deliver extra pension. Most of the more recent growth of DC provision has resulted by default, as employers have switched from DB.

Until relatively recently, however, the asset allocation strategies of DB and DC plans were similar, reflecting the dominance of DB and the conventional wisdom in asset management, and were notable for a high equity component intended to maximise returns. DB schemes justified a return-maximising strategy because the promise was in a sense aspirational – the employer could choose the extent to which any

investment losses should be made up.

Furthermore, risk was shared across all the members of the scheme, so that a short-term investment loss could be recouped later through the continuing contributions made in relation to the (majority of) active members.

The approach changed, in the United Kingdom at least, as governments progressively ratcheted up the cost and risk to the employer of making DB promises, first by making inflation indexation compulsory and then by legislating for an unavoidable debt on the employer. This has largely removed the scheme's ability to share risk between employer and member, while the consequent closure of many DB schemes to new members has reduced the scope for risk sharing between generations. The risk/return trade-off for employers and trustees was therefore transformed, making both more risk aware, and indeed risk averse.

What has followed has been a paradigm shift for DB investment reflected in increasingly sophisticated investment strategies designed to

Correspondence: John Ashcroft
JA Pension Consulting Limited, 50 Grange Road,
Lewes, East Sussex, BN7 1TU, UK

achieve an optimal balance of risk and return, with reduced equity allocations, the adoption of alternative investment classes, a move to liability-driven investment, or even complete risk removal through buy-out. In essence the trustees of DB schemes now seek to achieve a target level of return (funding objective) within the constraint of a risk budget. They seek to manage both risk and return. The current financial turmoil is still hurting most of these schemes and employers, but, especially for larger more sophisticated schemes, I would guess less than would have been the case before the shift.²

The paradigm shift in investment has not extended to DC schemes. The limited data available suggest that most default funds, and hence members, are heavily (at least 70 per cent, if not 100 per cent) invested in equities and make little use of sophisticated risk-reduction strategies other than lifestyling in the last few years before retirement.³ And yet, just as DB risk has become concentrated on one party, the employer, so DC schemes concentrate risk on individual members.⁴

Lifestyling has been the only risk-mitigation trend in DC (in the United States as well as the United Kingdom).⁵ This design feature aims to reduce risk exposure in the run-up to retirement when, in the United Kingdom at least, there is a shift to the conservative investment approach underlying life annuities. Nonetheless, as lifestyling is not compulsory, some DC scheme members are approaching retirement without even this risk mitigation, while, if an equity bear market were prolonged, members with lifestyling would see increasing proportions of their losses locked into their eventual pension as automatic shifts to cash and bonds take place. More sophisticated products, most notably target return funds, are appearing in DC. However, it is less clear whether such strategies are securing much of the market in the English-speaking world.

SHOULD DC INVESTMENT DIFFER SIGNIFICANTLY FROM DB?

The key difference between DB and much DC is that whereas the former is subject to the discipline of aiming for a target return with a risk

budget constrained by the employer's ability to make good under-performance, there is no such discipline in DC plans. Yet, the ultimate objective is the same: financial security in retirement.

I suggest that pension scheme members want a pension, not a savings product. That is, they want a high probability of a specific level of income in retirement, and place a much lower premium on upside than downside against that figure. If this is the case, then their attitude closely resembles that of a DB sponsor, who wishes to see the risk of having to top up the funding kept to a minimum, and is largely indifferent to upside beyond that point. In that case, one would expect to see stronger similarities between the investment behaviour of DB schemes and DC default funds than are currently visible. We should therefore expect to see the DC default fund aiming for a target level of return at retirement with a high level of certainty. DC funds would then, in the same way as DB schemes, seek to optimise return within the constraint of a limited risk budget. There are already DC plan designs, such as target return, that work on this basis.⁶

Moving to default funds designed along these lines might well lead to lower expected returns for the 'average' member than at present. Higher pension contributions would therefore be needed to deliver the same average pension. However, I would argue that this is a good reason for honesty about what pension contributions can be expected to buy and increasing contribution levels. The alternative is a lottery.

Even if individuals are not as risk averse as I suppose them to be, there are good public policy reasons for DC investment to be targeted at a basic level of return with limited downside risk and upside potential, so as to minimise future means-tested benefits. This consideration has particular relevance to the design of the default fund for Personal Accounts, and argues strongly for this scheme to target a level of return with limited upside or downside potential.

Why then has DC investment in the United Kingdom (and other English-speaking countries) not followed the lead of DB? One answer would

be that they are different products, as they are under a DC plan, for instance funded through additional voluntary contributions, simply intended to augment the generous benefits already accruing to members through a DB plan. In this case the DC fund is just icing on the cake. Hence, traditional high risk/return strategies may make sense. Statistically based modelling shows that a high, say 70 per cent, equity component in asset allocation produces the best outcomes in terms of expected time until the member reaches a hypothetical level of pension provision.⁷ However, the analysis also shows that there is widespread variability in outcomes.⁸

As DC increasingly becomes the only game in town for private sector employees wishing to save for retirement – and indeed from 2012 is intended to become quasi-mandatory – the potential variability in outcomes becomes a serious problem. An individual planning for retirement with only a DC pension scheme cannot rely on the high income that might arrive should financial markets perform well at the right time when this is accompanied by the real risk of a much lower retirement income. In other words, the DC member too seeks a target return with a risk constraint. A product that is highly variable in its outcomes is far from optimal, even if some retirees receive windfalls.

Hence, the argument that DC investment practice might differ from DB because DC members can benefit from investment upside much more than DB employer sponsors can appears flawed. This is especially so for the following reasons:

- The effective requirement on all but high-net worth individuals (who can afford the fees involved in drawdown schemes) to buy life annuities at a fixed point in time.
- The absence of risk pooling between members.

Point-in-time annuitisation freezes in any losses without the prospect of benefiting from subsequent market recoveries. Hence, the modelling result that high equity content delivers the best investment returns, so long as you can choose your time of exit, loses relevance. The

alternative, allowed in the United States and Australia, of running the savings on past retirement may prevent this problem but brings with it the risk that pensioners will outlive their retirement income, and hence is unattractive to the governments, such as the United Kingdom's, that provide a safety net in old age. For public policy reasons, most DC members are stuck with life annuities when they retire, and it can be argued that this is desirable.

Lifestyling provides a partial solution to the annuity cliff-edge risk, and in effect mimics the traditional approach in DB schemes of holding cash and bonds to cover liabilities maturing in the near future. However, the investment management of many DB schemes has gone way beyond this level of sophistication.

The absence of risk pooling means that retirement outcomes depend entirely on the individual's own savings pot. Pension plans can be designed that spread the risk between members to avoid any individual losing out too heavily by targeting a level of pension that is fair for all. This is the essence of the Dutch Collective DC plan, which unfortunately would be categorised as DB by UK pensions law. Unless the law changes to facilitate risk pooling (an idea that the Department of Work and Pensions consulted on during 2008 and has since rejected⁹), we are left with DC plans whereby every member is exposed to the risk that their assets will lose value at a fairly fixed point in time. It should be possible, however, to design investment strategies that deliver some of the benefits of risk pooling without making a contractual promise to the member.

I should add that I am not arguing for the practice in some European and Latin American countries of requiring DC schemes to deliver guaranteed performance above a certain level (for example the rate of inflation) or placing quantified limits on investment in specified asset classes. These regulations limit the risk/return trade-off that can be chosen by schemes. Unfortunately the level of risk and return implied by such regulation is rarely quantified, and the low minimum return can become the maximum as DC providers seek to minimise the risks inherent in funding a guarantee. Such regulation

has therefore led to conservative investment strategies with low expected returns, and a risk that the guarantees may prove impossible to deliver. The consequent risk/return trade-off may well be sub-optimal.¹⁰

Of course, some DC members do wish to take risks to increase the possibility of upside, especially if they have significant DB provision. This is a good reason for offering members choice. However, it sounds less convincing in relation to a default fund that is targeted at the generality of the membership unwilling or unable to make an informed choice.

WHAT ABOUT MEMBER CHOICE?

It could be argued that the current situation must be fine because DC scheme members are (usually) given a choice, and hence that the 80–90 per cent of members commonly in the default fund (where one is offered) are happy with the implications for the security of their pension. If there is a problem some would argue for better education. I disagree.

First, members have insufficient information to make informed decisions. Since 2003, UK legislation has required DC schemes (trust- and contract-based) to provide most members with an annual Statutory Money Purchase Illustration (SMPI).¹¹ This uses actuarial techniques to estimate the most likely expected pension, expressed in real terms, which could be bought with each member's pensions saving. There is no requirement, however, to give any probabilistic measure of the possible downside (and hence the risk to the forecast pension). Hence, members cannot compare the *riskiness* of the different choices offered by their scheme, let alone see how risks compare with other schemes.

Second, and worse still, the SMPI requirement may incentivise schemes/providers to adopt riskier approaches so as to increase the expected return. Indeed there is a remarkable parallel with the old days of DB – the riskier the strategy the less money it would appear needs to be contributed.¹²

However, even were the risks made explicit, there is plenty of evidence from across the world that most members have insufficient interest or financial literacy to understand even the most

basic concepts, let alone the fairly sophisticated statistical measures used to estimate risk. As the Pensions Institute has concluded, DC scheme members are reluctant investors.¹³ Leaving investment decisions to members is an abdication of responsibility, even if schemes provide sufficient information. The Institute's report considered the implications of this situation and argued for innovation in DC investment and regulatory change. I make no apology for repeating some of their conclusions, which appear to have made only a limited impact.

WHAT MAY HELP OR HINDER A SHIFT IN DC INVESTMENT BEHAVIOUR?

If member choice cannot be relied upon, then whether they like it or not, DC scheme trustees and providers need to determine which investment strategy best meets what the majority of the default fund members expect from the plan. This view was strongly expressed by the Irish Pensions Ombudsman, who stated that in many cases *trustees rely on the notion that they can sit back and await instructions from scheme members, who often have no up-to-date information on how their funds are invested. Except under certain prescribed conditions, the sole responsibility for investment lies with trustees, and it is time that all trustees, but particularly professional trustees, woke up to their responsibilities to members.*¹⁴

If, as I have argued above, members want a reasonably secure pension and not a lottery, it follows that DC schemes should be employing risk management strategies similar to those adopted for DB. I can think of a few possible reasons (but not justifications) as to why this does not happen:

- While in a DB scheme the employer and trustees can determine the trade-off between risk and return, DC member preferences are harder to ascertain, which means that trustees or providers need to make assumptions on the members' behalf. Of course, whatever decision is taken includes an assumption about the trade-off. How many schemes have evidence that their DC strategies reflect the risk/return trade-off that

members would choose if they were well-informed?¹⁵

- DC plans tend to be smaller than DB plans, and hence the overhead from investment sophistication may be proportionately higher, and the scope for diversifying across investment classes lower. This is more an argument for such schemes to use appropriate collective investments (or merge) than a reason for avoiding sophistication.
- Those who have to 'sell' pensions to employees, be they trustees or providers, may well feel that they cannot explain sophisticated strategies to individuals with low financial literacy. However, these individuals buy other products (such as motor cars) without understanding the detail of how they work. Why should DC default funds be different?
- There is a justifiable fear of being seen to make a promise by expressing the expected return from the fund in aspirational terms. This fear may be well founded given the track record of governments (and courts) of converting aspirations into legal requirements without (presumably) understanding the actuarial cost involved in moving from a target to a guarantee.
- The trustees or providers of DC schemes do not have 'skin in the game' in the same sense as employer sponsors of DB. There is little incentive for the employer to do anything to improve the likelihood of good returns for DC members, or to put pressure on trustees or provider to this effect. A fall in the value of the eventual life annuity can be explained away to members as something that just happens. No one has to reach into their pocket to compensate the member.
- Regulatory interest in the outcomes of DC schemes is much more limited than the intense regulatory interest taken in DB outcomes.

None of these reasons justifies DC investment practice lagging behind DB, but they highlight several regulatory issues:

- The absence of any requirement for trustees and providers to be explicit about the risk/return trade-off in their default funds, and the

requirement that SMPs forecast returns but not risks, limits the incentives to manage DC investment risk effectively.¹⁶ A good first step would be for schemes to report the returns they are targeting and the level of risk to these returns, in a way that can be compared with other schemes.

- As the Pensions Institute points out, trustees are often worried that if they take proactive decisions on DC investment, they could be liable for future under-performance. Hence, many trustees and providers seek to minimise their involvement (sometimes to the extreme of not designating a default fund). A sophisticated default fund strategy to minimise volatility against a specified target would leave trustees/providers even more exposed than a simple strategy. Furthermore there is the risk of retrospective classification of the scheme as DB. The Pensions Institute recommended that these issues would be addressed by providing a legislative 'safe harbour' against member litigation for default funds meeting specified design criteria. The US Pension Protection Act 2006, which provides safe harbour so long as the fund is appropriately balanced and uses a specified fund design, sets a good precedent.¹⁷
- The limited incentive for DC scheme trustees and providers to manage funds in the best interests of all members, coupled with the risks arising from the absence of a safe harbour, encourages a hands-off approach that is no longer allowed in DB schemes. The public policy issue is that of how the incentives can be re-balanced without being overly burdensome.

UK DC schemes will have to provide a default fund with lifestyling from the introduction of mandatory auto-enrolment in 2012. In the absence of any safe harbour, risk-averse trustees and providers may follow the investment behaviour of the new 'personal accounts' default fund, on the basis that they are unlikely to be sued for following the lead of a government body. As personal accounts may fairly rapidly become the United Kingdom's largest DC scheme, they will become a market leader. The Personal Accounts Development Authority

(PADA) therefore have an opportunity to help shift the market towards greater risk management.

There may also be scope for the Pensions Regulator to take a more interventionist approach to DC investment. They might in particular wish to reflect on what the prudent person principle means for DC schemes. UK trustees (at least) are required to ensure that their scheme's assets are invested 'in the best interests of members and with appropriate diversification of risk'. Furthermore, their Statement of Investment Principles 'must set out how risks are to be measured and managed'.¹⁸ The current interpretation of these provisions seems to be that trustees should take qualified advice and have satisfactory knowledge and understanding. Other interpretations are possible.¹⁹ In particular, it would be possible to conclude that the best interests of members are those set out in this article – belonging to a default fund that provides a balance between risk and return, through widely diversified investment allocation and risk management techniques, so as to deliver a targeted level of pension with some reasonable degree of assurance.

CONCLUDING REMARKS

My starting point was the divergence between DC and DB investment practice. In essence, the widespread approach of investing DC funds heavily in equities with risk protection limited (at best) to lifestyling has been justified because it maximises the average retiree's likely pension. However, the approach leaves members exposed to a significant risk of receiving a much lower pension. I cannot believe that this is what most pension scheme members want, or that it is consistent with public policy.

Such an approach that can, as over the last year, result in pension pots being substantially eroded by market volatility appears unlikely to encourage people to save in DC pensions. If DC pensions are to have a future, investment has to be more sophisticated. The approaches increasingly adopted for DB that seek to trade unwanted upside potential for a reduction in downside risk seem eminently suited to DC.

Such products are available, but are currently used by only relatively few schemes.

There are potentially many poor incentives as well as obstacles in the way of a shift in approach for UK DC. DWP and the Regulator need to consider how to help shift the incentives, so that the trustees and providers of DC schemes have an incentive to change. PADA could also provide leadership by choosing an investment approach for personal accounts that seeks to deliver a pension rather than a savings product.

REFERENCES AND NOTES

- 1 While the original employer-sponsored schemes were DC, the big growth, post-war, was in DB.
- 2 In this context it is instructive to compare the level of losses in UK and Irish pension schemes reported by the Organisation for Economic Co-operation and Development (OECD) in their February 2009 *Private Pensions Outlook*. Losses were much higher in Ireland than in the United Kingdom, which could well reflect the greater sophistication evident in the latter country. Unfortunately, the OECD does not compare the losses between DB and DC plans – my guess is that for DC the position was equally bad in both countries.
- 3 Until the Equitable Life crisis, individuals could also protect against some downside through 'with-profits', but this is now largely discredited.
- 4 This concentration of risk is not found in much of continental Europe, where employer or provider performance guarantees are given and where risk is often pooled between generations.
- 5 In this article the practice of moving investment allocations to a more conservative strategy as the member approaches retirement is described as lifestyling, reflecting common UK parlance. In academic literature and other countries this practice is referred to as lifecycling.
- 6 This approach bears some resemblance to the approach Zvi Bodie recommends in his book *Worry-free Investing* (in the United Kingdom co-authored by Ian Sykes and published by FT Prentice Hall (2008)).
- 7 These comments draw on *DC Pension Plans for All: What If?* Bonnie-Jeanne MacDonald, Andrew J.G. Cairns, both of Heriot Watt University, Edinburgh, Scotland, and *Pension Metrics: Stochastic Pension Plan Design and Value-at-Risk during the Accumulation Phase*, David Blake Pension Institute, Birkbeck College (now Cass Business School), Andrew Cairns Heriot Watt University, Kevin Dowd Sheffield University, published by the BSA Gamma Foundation.
- 8 Recent research shows that a fund 100 per cent in equities may over 40 years deliver a replacement rate two-thirds (or less) as big as 100 per cent bonds or a more sophisticated fund in 5 per cent of outcomes, and over 10 per cent less in 25 per cent of outcomes assuming a 3.5 per cent equity risk premium. (Of course, the greater the proportion in equities the greater potential upside.) The sophisticated fund is a form of life cycle fund that invests a proportion equal to 100 less the member's age in equities with the remainder in bonds, with annual adjustment. This research is published in *There's no time like the present: the cost of delaying retirement saving*, Alistair Byrne

- (University of Strathclyde), David Blake (The Pensions Institute, Cass Business School), Andrew Cairns (Heriot-Watt University) and Kevin Dowd (Nottingham University Business School), published in the Financial Services Review 15 (2006).
- 9 Department for Work and Pensions: Risk Sharing Consultation: Government response, 11 December 2008. In essence, the Government rejected conditional indexation but promised to study further collective DC arrangements.
 - 10 In particular, modelling tends to show that risks increase and returns fall as equity allocations fall below around 20 per cent.
 - 11 The statutory requirement comes from the Pension Schemes Act 1993 (c. 48) Section 113, the Personal Pension Schemes (Disclosure of Information) Regulations 1987. (SI 1987/1110), the Occupational Pension Schemes (Disclosure of Information) Regulations 1996 (SI 1996/1655), the Stakeholder Pension Schemes Regulations 2000 (SI 2000/1403) and the Occupational and Personal Pension Schemes (Disclosure of Information) Amendment Regulations 2002 (SI 2002/1383). Technical Memorandum 1 issued by the Board of Actuarial Standards provides guidance on the practicalities.
 - 12 This effect is limited to some extent by the maximum 7 per cent rate of return that may be used.
 - 13 Blake, D., Byrne, A. and Harrison, D. (2007) *Dealing with the Reluctant Investor: Innovation and Governance in DC Pension Investment*. London: Pensions Institute of the Cass Business School.
 - 14 From a speech on 27 November 2008 by the Pensions Ombudsman for Ireland, launching his annual report for 2007.
 - 15 There are now services available to trustees that provide such information, and therefore an increasing number of schemes are properly informed. It would be interesting to see how this may have affected their investment strategy.
 - 16 It is not just members who are left with a very narrow view of the future prospects of their DC pension. It is hard for anyone else, including government and the Pensions Regulator, to ascertain how DC schemes are really performing.
 - 17 The Act allows target retirement date (lifestyled) funds, target return funds or managed funds. Evidence to date suggests that target date funds are predominating (which is slightly odd given that most members do not annuitise at retirement).
 - 18 The Occupational Pension Schemes (Investment) Regulations 2005.
 - 19 Indeed, the Dutch regulators of pensions interpret the prudent person principle as requiring much more active management of investment risk and disclosure by DC funds.