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A RISK TOO FAR

THE CASE AGAINST COLLECTIVE DEFINED CONTRIBUTION PENSIONS

MICHAEL JOHNSON

SUMMARY

- Royal Mail has committed to offering its workers a Collective Defined Contribution (CDC) pension scheme, designed to split the difference between existing Defined Contribution and Defined Benefit schemes.
- The CDC idea is winning increasing support. But it is risky, untested and undermines the personal pensions freedoms introduced in 2015
- The system risks creating irreversible inter-generational injustice by overpaying pensioners at the expense of current and future employees. It is also unclear whether what is promised to workers is actually deliverable.
- Where CDC has been tried overseas it has either been considered a failure, or the particular circumstances are not applicable to the UK.
- This paper catalogues the many risks associated with the CDC model, before proposing an alternative structure.
- Individual savings pots invested in with-profits funds would have similar performance drivers to a CDC scheme.
- The funds would receive contributions from both employees and employer and, ideally, incorporate pension funds' regulated consumer protections.
- The individual accounts would be overseen by NEST, rather than requiring any new structure, with the with-profits funds overseen by an independent body charged with maintaining intergenerational fairness.
- This model avoids the complications, uncertainties and risks of CDC schemes, which sits in a regulatory No Man's Land, while providing a better alternative for those who use it.

1. INTRODUCTION

The workplace pension schemes landscape is divided into two distinct frameworks, based upon who assumes the risks associated with providing a retirement income.

With a defined benefit pension scheme (DB) the sponsoring employer (i.e. the shareholders) assumes all the risks. With a defined contribution (DC) scheme, the risks reside with the individual employee. This includes the risk of running out of money before dying, partly as a result of living "too long".

Unlike DC provision, DB pensions provide certainty of income until death, but this is expensive.[1] Consequently, almost all private sector DB schemes have closed to new accrual, replaced by DC schemes with employer contributions of typically no more than 50% of what would be required to maintain a DB scheme. We should therefore expect most of the next generation's pensions to be less than one half of their parents'. With DC ascendant, it is likely that an increasing number of retirees will need supporting – by taxpayers.

Meanwhile, former public sector and quasi-public-sector entities are now being forced by economic reality to follow the private sector away from DB provision, notably Royal Mail and the Universities Superannuation Scheme (USS).

But, with their workforces opposed to outright DC, their destinations are unclear, because the legal and regulatory territory that lies between DB and DC poles is ill-defined.

Royal Mail has committed to solving this problem by imminently delivering a Collective Defined Contribution (CDC) scheme. CDC's appearance in the pensions narrative is partly a confession that DB pensions can no longer be provided on a sustainable basis. But it has also stoked a debate that is as much political as technical, about what our pensions should actually look like – and the compatibility of such schemes with the personal pensions freedoms that have been central to the recent reform agenda.

2. WHAT IS 'COLLECTIVE DEFINED CONTRIBUTION'?

The term 'CDC' is, by itself, pretty meaningless. The Pension Schemes Act 2015 created three distinct categories of pension scheme:

Defined benefit (DB): a full pensions promise in relation to retirement income and any other retirement benefits.

Shared risk ("defined ambition"): a promise in relation to at least some of the retirement benefits that may be provided to each member.

Defined contribution (DC): no promises in relation to any of the retirement benefits that may be provided to the members.

"Defined ambition" entails risk-sharing between the two parties (employer and employees), hence its mid-location on the DC-to-DB risk allocation spectrum.

But there is real confusion among CDC supporters as to who is doing the risk-sharing. Some say that the risk-sharing would be consistent with "defined ambition" (and use the term "CDC" interchangeably), whereas others envisage risk-sharing only between schemes' members. Any employers who might say that

[1] DB costs partly reflect the need for contributions "catch-up": for decades we have under-estimated, or ignored, improvements in life expectancy. The next generation is paying the price.

they are considering a CDC schemes are, no doubt, in the latter camp.

Further definition is lacking, and the Government's intentions for CDC remain hazy. Steve Webb, Pensions Minister at the time of the 2015 Act, said "let a thousand flowers bloom" but, so far industry requests for secondary legislation to bring CDC into effect, and with it, some clarity, have to date been unsuccessful, although the Department for Work and Pensions is exploring existing legislation for ways to provide legal backing for the introduction of CDC schemes.[2]

It may be that the Government has recognised that in defining CDC it would introduce specificity, which would narrow the room for negotiation between employers and unions. Alternatively, given the absence of corporate demand for CDC, it may have decided that there are many more pressing matters to attend to.

2.1 The legal perspective

(a) Pervading uncertainty

CDC schemes reside *somewhere* on the DC-to-DB risk allocation spectrum (between the employer and employees). But until a scheme is specified in minute detail, one cannot be sure of exactly where it will lie. Stray too close to DC, and the lack of pensions certainty will be unacceptable to many employees. Stray too close to DB, and the employer is likely to become nervous of the unknown scale of the risks they could be assuming.

History conspires against enduring legal certainty for pensions schemes. The Bridge ruling, for example, created confusion by determining that benefits based upon contributions on which a return was guaranteed could be considered "money purchase", even though a deficit could arise in such a scheme.[3] It was only later that section 29 of the Pensions Act 2011 clarified the definition of "money purchase" benefits, to restore it to the meaning the Government intended it to have before the Bridge case (i.e. that a scheme is only considered a provider of "money purchase" benefits if it cannot develop a funding deficit).[4]

Some schemes fell afoul of the clarified definition, notably hybrid schemes and schemes that offer cash balance benefits and/or internal annuities – potentially straying into CDC territory.

(b) Risk of legislative change

Could a CDC scheme that offers a "target" income ever be considered as a non-money purchase scheme, perhaps because of its potential to develop a "target" funding deficit? Could legislation ever be introduced that put a CDC scheme sponsor on the hook to increase retirement incomes, or meet any "target" shortfall through larger employer contributions? This would terminate a scheme's money purchase designation, taking it into DB's regulatory embrace. Employer debt legislation could then apply, and such a scheme could also fall within the domain of the Pension Protection Fund.

Any CDC sponsor would also want to be certain that the scheme would not give rise to a "constructive obligation" arising out of (past) conduct and intent, rather than through a contract. The danger is that this could be

[2] Julian Barker, DWP defined benefits strategy team leader, April 2018.

[3] Supreme Court 2011's judgement, Bridge Trustees Lts vs Houldsworth.

[4] As determined in section 181 of the Pension Schemes Act 1993. See Changes to the definition of money purchase benefits; TPR, July 2014.

construed as a liability that should appear on the balance sheet.

Risk #1: Legal risk *Given CDC schemes' lack of legal definition, there remains the potential (depending upon a scheme's final design) for some balance sheet exposure, perhaps arising through "legal creep".*

2.2 The regulatory perspective

Clearly, structuring a CDC scheme is about compromise, which is sometimes facilitated through ambiguity and fudge, neither of which rest comfortably within a regulated environment, whatever that may ultimately be for CDC.

Today there is little regulatory clarity in the No Man's Land between the "money purchase" (DC) and "not money purchase" (DB) extremes. Any scheme sponsor would, of course, strongly prefer for its scheme to be defined as "fully DC", the alternative being to fall, by default, into the DB regulatory regime, with all its cost (and balance sheet) implications.

Risk #2: A regulatory No Man's Land *There is no regulatory framework in place for CDC schemes, heightening the risk of stakeholder misunderstandings.*

Perhaps one test of a CDC scheme's regulatory identity is whether it would fall into the (DB) remit of the Pension Protection Fund (PPF). That aside, given the role that human judgement has in determining CDC-derived incomes (likely guided by modelling outputs), tight regulation should be expected.

2.3 Comingled cashflow

CDC schemes do not provide individual pension pots. Instead, employer and member contributions are merged within one collective pot, the intention being that a continuous inflow of contributions from new employees will maintain a sufficient cashflow to pay retirement incomes. This presumption of a cashflow continuum is a fundamental tenet upon which CDC's merits are constructed. But, ultimately, such certainty is a matter of faith, reliant upon schemes and the people who run them making good decisions against a backdrop of some significant unknowns (including life expectancy and investment performance).

2.4 CDC scheme advantages

(a) Life expectancy risk: shared

A CDC scheme's collectivised pot facilitates the socialisation of life expectancy risk across the entire scheme membership. Consequently, there is an inherent mechanism for cross-subsidy, i.e. redistribution from those who die relatively young to those who live long lives. CDC scheme members are therefore participating in a form of lottery to mitigate the risk of prematurely exhausting their savings, a risk that few are well placed to assume individually. With-profits funds provide a similar function.

(b) Investment pooling: more efficient

Provided that a CDC scheme has a membership (i.e. cashflow) continuum, it is unlikely to experience some of the investment constraints that arise when seeking to provide a retirement income to one individual *in isolation*. An individually tailored annuity income or drawdown requires a more cautious approach to investment, particularly in later life, when "de-risking" is adopted. The risk of pot exhaustion pertains to individual pots, not to a shared (CDC or with-profits) fund.

A CDC scheme's investment time horizon could be extended beyond the life expectancy of one individual, which potentially produces higher returns. Asset allocation could be more heavily weighted towards equities (riskier than fixed income) and less liquid assets (which usually provide a return premium), such as infrastructure.

In addition, retired scheme members would retain some exposure to risk assets and growth, and investment pooling within a single pot should produce economies of scale (lower costs and smaller fees).

Investment efficiency manifests itself as a larger asset pool for a given level of contributions. Consequently, CDC schemes should provide both a lower risk/return ratio than an individual's DC pot, and a narrower range of *potential* outcomes for the individual, i.e. some inherent risk reduction, akin to a feature of insurance. However, claims that CDC will produce a 40% increase in expected median pension outcomes when compared to a traditional DC-derived pension are unsubstantiated (and, in some cases, self-serving), lacking longitudinal evidence to support them.[5] Consequently, they defy credibility.

But that aside, the motor for such claims, the extension of risk-taking into retirement, is not exclusive to CDCs.[6] It is, of course, a feature of annuity books and with-profits funds, both of which also collectivise risk.

(c) Smoothing: a consequence of sharing and pooling

A CDC scheme's ability to share life expectancy risk and pool investments facilitates "smoothing", which helps to maintain scheme sustainability. It mitigates longevity risk between individuals within an age cohort, and also timing risks between cohorts, primarily in respect of investment performance and inflation.

2.5 CDC scheme drawbacks

(a) No individual property rights

The pursuit of better overall returns for all members effectively subordinates the interests of the individual: there are no individual property rights. Retirees are effectively paid on a pay-as-you-go basis, i.e. not, for example, through annuities owned by the individual.

This potentially places CDC schemes at odds with pension freedom and choice: from April 2015 there has been no requirement to annuitise a pension pot, which has proved to be very popular.[7] In addition, fewer than one in three workers expects to have a fixed retirement date.[8] An inflexible CDC scheme could impact upon many people's retirement plans, but accommodating access to savings, as envisaged by freedom and choice, could potentially add significant complexity.

Risk #3: Incompatibility with pensions freedoms
CDC's inflexibility in accommodating the individual can only be overcome at the price of additional cost and complexity.

It is clear that CDC scheme members would likely find it more difficult to take advantage of the pension freedoms than had they saved in their own individual (pure) DC pots.

Acknowledging CDC's incompatibility with pension freedoms, CIDC schemes have been suggested, with the "I" representing "Individual". Scheme members would have their own pots in the accumulation phase, instilling a sense of personal ownership, and a contribution rate

[5] Robin Ellison, FT Letters, 10 December 2013, quoting from The Case for Collective DC; a new opportunity for UK pensions; Aon, November 2013.
[6] See Stuart Fowler, FT Letters, 18 December 2013.

[7] From the age of 55, savers may now take cash out of their pension pots at will (taxable at their marginal rate); Pensions Act 2014.
[8] Global Retirement Readiness Survey 2014; Aegon.

which would be set to be actuarially fair to each member. This would create a direct link between payments into the scheme and the benefits received, the intention being to avoid reliance on intergenerational smoothing. In addition, there would be an individually-tailored de-risking investment strategy prior to retirement, and potentially some risk pooling in the post-retirement phase.

This all sounds immensely complicated: unsurprisingly, CIDC has gained little traction.

(b) Membership continuum: only an assumption

A CDC scheme needs a continual inflow of new members to maintain a stable cashflow. Schemes with a declining membership are less robust, and more complex to manage. They become increasingly vulnerable to asset price shocks and, as their investment horizon contracts, the premium returns from long-term or illiquid assets become less accessible – exacerbating whatever cashflow concerns may already exist.

Unless robust controls are in place (discussed below), younger members' contributions are then increasingly used to pay retirees' incomes, rather than being invested to help meet their own retirement incomes – albeit that this is unlikely to be explained to them.

Clearly, maintaining a balanced scheme membership is important, but it cannot be guaranteed. The prospect of inter-generational unfairness is very real.

(c) CDC scheme control is highly complex

CDC schemes provide a notional "target" for retirement income, perhaps related to the recipient's average salary, which is not guaranteed: incomes can be cut in extreme circumstances. Consequently, retirees are not receiving a "pension" as conventionally understood, i.e. certainty of income until the day they die.

Given that CDC schemes cannot become "under-funded", sponsoring employers would not ever expect to find themselves on a legal hook to increase contributions. But, legalese aside, there is always the risk, perhaps after a large fall in asset market prices, that a sponsor could come under moral pressure to "chip in" and increase his contributions, not least to preserve good relations with employees. And unpopular decisions, such as reducing payments to retirees, could come back to haunt a sponsor.

Risk #4: Reputational risk *Employers would invariably be attaching their reputations to the wellbeing of any CDC scheme that they might sponsor.*

CDC schemes smooth members' outcomes across generations, both by reducing retirement incomes following "poor" asset performance and by holding back any "excess" returns. Defining "poor" and "excess" is a complex, judgemental process, requiring assumptions for:

(i) How the demographic shape of the membership will evolve over time (which requires assumptions for life expectancy and workforce size).
(ii) The performance of asset markets.
(iii) An array of economic performance metrics (including interest rates and inflation).

There is a variety of "cost control" tools available, including one or a combination of cutting retirement incomes, increasing the contributions rates, slowing the accrual and/or the indexation rates, lowering "target" pensions and, *in extremis,* clawing back benefits already notionally accrued.

Control levers should, ideally, be pulled early. Delay, and it could be too late to reverse a "death spiral".[9] Thus if, for example, a target funding ratio were to fall below 110%, then rather than prompting a meeting of stakeholders to chat about what to do, remedial actions should be immediately triggered. Crucially, the control tools should be assertive, prescriptive (discretion should be limited to minimise animosity) and applied across the whole membership. It should be, for example, unacceptable to only require younger members to make higher contributions to protect the benefits of existing retirees.

Complex modelling can be used to assist decision-making, but ultimately it is people who have to decide the outcomes for a scheme's membership. Sometimes the decision is to go back to the modelling and change some of the assumptions, perhaps until a more accommodating answer is achieved (an exercise that the USS is currently pursuing (see section 5.2)).

Human nature is such that we are naturally inclined towards the easier path when making a decision. A decision to cut retirement incomes today, to retain more assets on behalf of current and future employees, is clearly more difficult to take than slowing the workforce's "target" accrual rate. Consequently, the risk of over-distribution in favour of today's retirees is very real, and it would leave the asset pool too small to support future generations' "target" retirement incomes, unless the latter were reduced. In addition, there is likely to be an adverse knock-on effect on the only stakeholders not at the negotiation table: future generations of workers.

The risk of over-distribution should ring alarm bells, because the industry has demonstrated that it is not infallible in this regard: recall with-profits funds, which, if not properly controlled, invite Madoff economics (aka a Ponzi scheme).

Risk #5: Irreversible inter-generational injustice *through excessive liquidation of communal assets ("over-distribution") to pay today's pensioners at the expense of current and future employees.*

CDC proponents are clearly nervous of the over-distribution (or risk misallocation) risk, and some raise the prospect of volatility (i.e. reserve) funds to cover any shortfall in "target" payments. Initially, these would have to be funded by contributions from employees and employers but, ideally, over time a portion of the investment returns would be retained rather than paid out to retirees. Alternatively, control levers could be used to partly mitigate the over-distribution risk, overseen by an assertive, independent governance body (see section 7).

One proposal to counter the risk of over-distribution is to quantify each CDC scheme member's "equitable interest", taking into account his contributions and the projected value of his "target" retirement income.[10] Thus, an equitable interest is a deconstruction of CDC's collective nature, representing (in theory) a member's fair share of the assets. It facilitates the conversion of an uncertain future projection (the "target" retirement income) into hard cash

[9] Witness, for example, the consequences of lax governance on some of the LGPS's funds.

[10] Con Keating has written at length about equitable interest. It is quite possible that the author's interpretation of Keating's material is not precise, in which case apologies are due.

for the individual. This effectively subordinates scheme members to recent departees because it leaves the former with all of the modelling uncertainties, as well as any subsequent asset liquidity issues.

Given that there would be no practical way to "claw back" a crystallised equitable interest, it would have to be cautiously determined, with some kind of reserve retained within the scheme. This would have to be communicated to the membership, not least to mitigate the risk of past members using hindsight to encourage them to make additional claims on the scheme.

These challenges aside, equitable interests could facilitate withdrawals (or transfers): this is similar to a DB-style transfer value, set at a level that would not be detrimental to remaining scheme members. Either way, more complexity, and we have been here before. Indeed this is like how a with-profits fund operates, with actuaries determining how to share returns across members, and across generations of members.

2.6 Taxation and accounting

There is nothing in the public domain that indicates what the tax treatment of a UK CDC scheme would be, nor how it could potentially change if, for example, a scheme's funding position were to diverge from what would be required to meet "target" benefits.

The accounting treatment for CDC schemes is also currently unspecified. One assumes that any potential CDC scheme corporate sponsor would first seek confirmation from the accounting profession that their scheme would be accounted for under IAS19, without a balance sheet liability.

Risk #6: unconfirmed tax and accounting frameworks *Any potential CDC scheme sponsor would be ill-advised to launch such a scheme without absolute clarity as to its tax treatment, both for itself and also the membership. The accounting treatment is similarly unspecified.*

3. PPI MODELLING OF CDC

3.1 Promising – in theory

In 2015 the DWP commissioned the Pensions Policy Institute (PPI) to develop a CDC model to seek to independently replicate the approach taken in some earlier CDC modelling by Aon.[11] The PPI's model looks at a potential CDC scheme under different assumptions to determine whether it would produce better results compared to individual DC, and in what circumstances.[12] It concluded that:

In the short term, with no initial pre-funding, the benefits of the modelled CDC scheme are similar to that of a DC scheme with an aggressive drawdown (7% per year).[13] However, the modelled CDC scheme would be less likely to run out, and the outcomes are still higher than a DC scheme with an annuity.

In the long term, once the scheme is mature and the scheme population is stable, CDC produces better outcomes (a replacement rate of between 27% and 30%) than DC (a replacement rate of between 12% and 21%, assuming a 10% contribution rate). The PPI modelled CDC scheme also requires a relatively low contribution rate to maintain these outcomes.

[11] The case for collective DC; Aon Hewitt, 2013.
[12] See Modelling Collective Defined Contribution Schemes at www.pensionspolicyinstitute.org.uk

[13] Note that a 7% drawdown rate from an individual DC pot would seriously risk pre-death pot exhaustion, indicating that a CDC scheme could be a sounder form of retirement provision.

Clearly, the PPI's long-term projection[14] suggests that *in theory* a CDC scheme could produce a better return to members than individual DC arrangements. But it only quantifies the value of CDC as a *potential* destination, in the form of a long term stable position. This raises a crucial question: to what extent would a new CDC scheme lend itself to PPI's analysis?

3.2 PPI modelling: inconsistent with a new CDC scheme

The PPI's modelling of a CDC scheme assumes:

A mature scheme membership with a stable population, i.e. that there will be a continuous flow of contributing new entrants to cross subsidise (i.e. fund) the retired, thereby maintaining a sufficient funding level. But given the rapid pace of technological advance, including automation and AI applications, no one could confidently assume that any scheme sponsor's workforce will not in future shrink relative to its pensioner population. This would introduce complex risk management challenges, summarised as a tontine pension scheme.[15]

It is fully funded from inception. Any new CDC scheme is unlikely to start with much, if any, funding, very much at odds with the PPI's modelling. Initially there would be no opportunity for economic risk sharing between age cohorts, so future accrued benefits would have to be met from the beneficiaries' own contributions (and asset performance). Over time, the scheme could trend towards full funding, provided there were a sufficient number of in-coming active members to "mature" the membership and assume, through time, a growing share of the economic risks from longer-term members. New members would, of course, need to hope that there would be another generation behind them to do likewise. Intergenerational risks aside, attaining scheme stability would likely take at least two or three decades.

Alternatively, the scheme sponsor could make an initial asset transfer into the scheme, which would shorten the time required to achieve stability. These assets could come from the sponsor itself (i.e. shareholders, who would object) or an existing pension scheme, which would weaken the latter's financial condition.

All the members of the scheme are aged over 40. Consequently, per member contributions in the modelled scheme are significantly higher than would be the reality (a typical firm employs a lot of people under the age of 40).

Benefits would be immediately cut when investment returns were low. In practice there could be a significant time lag between poor returns and cuts to benefits. Negotiations could be a drawn-out process, likely to result in some form of fudge that penalised the next generation of scheme members (who would not be represented at the negotiating table). In the meantime, unreduced retiree incomes, for example, would deplete the assets faster than

[14] The PPI used a stochastic microsimulation model, their reported outcome being the central result. Any scenario as pertains to an individual could turn out better or worse.

[15] A tontine was originally a 17th century investment plan for raising capital, combining features of a group annuity and a lottery. Each subscriber would pay an agreed sum into the fund, and thereafter receives an annuity. As members die, their shares devolve to the other participants, and so the value of each annuity increases. On the death of the last member, the scheme is wound up. Tontine pensions rely on actuarial techniques to calculate fair transfer payments when participants are of different ages and have made different contributions. In theory, tontine pensions would always be fully funded, and the plan sponsor would not be required to bear the investment and actuarial risks.

otherwise, reducing the underlying fund's future returns.

In addition, following death, the PPI's model attributes no value to any residual assets in an individual's DC pot, nor to the drawdown flexibility that such pots offer.

3.3 Conclusion: PPI modelling

Few would dispute that a *fully funded* CDC scheme with a membership (i.e. cashflow) continuum could be expected to usually provide a better retirement outcome than drawing down from an individual DC pot. But the PPI's assumptions for their modelled (idealised) CDC scheme significantly flatters the case for a CDC scheme compared to individual DC pots. By the PPI's own admission *"the results are heavily dependent on what we assume the starting position to be"*, and that *"it is possible to design different models and use alternative assumptions that could lead to different outcomes".*[16]

In addition, by assuming that a new CDC scheme would be "mature", stable and fully funded from inception, the PPI is conveniently sidestepping the awkward transitional issues that the sponsor of any new CDC scheme is likely to meet prior to the scheme achieving such a status. In practice, a new scheme is likely to commence unfunded, and would be a far riskier enterprise, particularly from the perspective of younger members. At the very least, any scheme moving from start-up to steady state would require a reserve (buffer) fund to draw upon, to maintain a fair smoothed return.

Consequently, it is challenging, to say the least, to envisage how the PPI's work lends itself to supporting the case for any start-up CDC scheme. Yet this is what CDC proponents would have us believe, notwithstanding the lack of any quantification of the risks involved.

Risk #7: Modelling risk *CDC proponents point to superior returns relative to DC pots, but these are modelled, not founded upon empirical evidence, underpinned by assumptions (a "mature", stable and fully funded scheme from inception) that are wholly inappropriate to a new (start-up) CDC scheme.*

4. INTERNATIONAL EXPERIENCE OF CDC

4.1 The jury is still out

There are a number of CDC risk-sharing pension plans in operation aboard, notably in Canada, Denmark and the Netherlands, but no two are directly comparable. Each has its own problems, and the Dutch, in particular, are divided over CDC's long-term sustainability, fuelled by:[17]

(i) Years of poor investment performance.
(ii) A diminishing appetite for sharing risk between generations (fuelled by a lack of independent oversight of how payments are redistributed from young to old members).
(iii) Criticism of the liability valuation techniques being used, which could lead to *"deeply damaging intergenerational wealth-distribution effects"*[18]
(iv) Opacity concerning members' individual property rights and also the ownership of any surplus.

Dutch schemes have experienced highly contentious contribution increases and income reductions (by up to 6%). These have been

[16] See Modelling Collective Defined Contribution Schemes at www.pensionspolicyinstitute.org.uk
[17] See Risk sharing pension plans: the Dutch experience; PPI, October 2014.
[18] See Pension Liability Measurement and Intergenerational Fairness; Theo Kocken, Professor of Risk Management, VU University Amsterdam, 2012.

damaging to employer-employee relations and have prompted accusations of inappropriate scheme design and excessive regulation.

Some Canadian schemes have crossed the Rubicon by converting accrued rights in existing DB plans into different forms of "target income" plans, a predictably controversial move (but perhaps necessary from a sustainability perspective).[19]

Germany, recognising that its DB-centric pensions framework is unsustainable, recently passed legislation that defined DC provision for the first time, and also to allow for (insurance-regulated) CDC scheme implementation. Employers and unions agreed that any such scheme should include a contributions-funded reserve against adverse risks, and that the unions would be part of the governance structure.

4.2 Cultural differences abound

(a) The Netherlands

The Dutch workplace is characterised by a highly unionised collective bargaining environment so, perhaps unsurprisingly, the CDC principles of collectivism and solidarity feature strongly in the Dutch pension system.[20] The UK is very different, with individualism ascendant. We now expect clearly-defined individual property rights and considerable flexibility in respect of both the accumulation and decumulation phases of a pensions scheme. The Dutch CDC model provides no such flexibilities. Retirees can only receive their pension at the time and in the format set out in the scheme rules, leaving little room for manoeuvre. In addition, notwithstanding automatic enrolment, workplace scheme participation in the UK ultimately remains voluntary (unlike in Canada and the Netherlands). Consequently, the Dutch vision of CDC does not lend itself readily to the British situation.

(b) Canada

The Canadian province of New Brunswick offers a pensions scheme that is sometimes referred to as the bellwether for risk-sharing between employers and employees. Regular stress tests are intended to ensure that the "target" benefits remain realistic under adverse economic circumstances, thereby preserving the sustainability of the scheme. The scheme claims that the division of risks and rewards is transparent, and that prescriptive rules determine what would happen in the event of any projected shortfall.

However, one actuary's report[21] suggests that the New Brunswick scheme has significant shortcomings that together provide "a recipe for disaster", including:

- That the provincial government scheme sponsor broke past promises by unilaterally changing the scheme from one of "guarantee-to-pay" to "hope-to-pay". In addition, the changes are retrospective, i.e. they include benefits *already* earned.

- "Incomplete and misleading" membership communication. In particular, the scheme was described as a "shared risk plan" which implies the equal sharing of risk between employer and employees. In reality the employees ultimately bear 100% of the risk,

[19] See Risk sharing pension plans: the Canadian experience; PPI, October 2014.

[20] Dutch contributions are typically some 20% of pay, substantially more than the minimum 8% of band earnings that the UK's automatic enrolment will attain in 2019.

[21] New Brunswick shared risk plan: there's more to the story; PBI Actuarial Consultants Ltd, Pension Update, 21 August 2015.

with the sharing being between scheme members. A better description would have been a “target benefit plan”.

- Ambiguous descriptions as to what benefits would actually be paid (specifically, which pre-retirement earnings escalation and post-retirement indexing would be used).

- Flaws in the stochastic model used to support the case for the scheme, notably inappropriate input parameters and assumptions.

The report concluded that the New Brunswick scheme is a “potentially dangerous model for use in the pensions industry in Canada” – not very encouraging.

(c) Germany

Germany’s interest in CDC is fuelled by overt state paternalism. There is widespread concern that the individual lacks the necessary education or engagement required for pensions-related decision making. The author shares these concerns in a UK context, but this does not mean that CDC schemes are the answer.

5. CDC: DEVELOPMENTS IN THE UK

5.1 Royal Mail: in the front line

(a) A high-risk strategy

In 2012, prior to Royal Mail’s stock market listing, the then Government cleared the deck by assuming the Royal Mail Pension Plan’s (RMPP) £10 billion defined benefit (DB) funding deficit, along with £25 billion of assets. Some £35 billion of liabilities were transferred to a new taxpayer-sponsored Royal Mail Statutory Pension Scheme; these have subsequently mushroomed to £46.8 billion (March 2017). Benefit payments of more than £1.3 billion per year are now being met on a pay-as-you-go basis, in common with some 85% of public service pensions.

The residual RMPP subsequently accumulated new liabilities in respect of post-2012 accruals, and what was an initial surplus rapidly headed towards a deficit, albeit that the RMPP had closed to new employees in 2008. With the RMPP clearly unsustainable, Royal Mail proposed a new package of pensions, pay and working conditions which, in March 2018, was strongly supported by 91% of Communication Workers Union (CWU) members. The package includes a commitment to replace the RMPP with a collective defined contribution (CDC) pension scheme.

Royal Mail closed RMPP to future DB accruals at the end of March 2018 and established an interim arrangement consisting of a cash balance scheme, with a 13.6% employer contribution, and an improved defined contribution (DC) plan. Ongoing employer contributions exceed £400 million per annum.

Risk #8: A leap into the unknown *Royal Mail has committed to deliver a pension scheme that is untried and untested in the UK, with no apparent Plan B.*

(b) Misaligned interests

A small group of pensions industry vested interests (predominantly consultants and lawyers, perhaps seeking to replace their diminishing DB income streams) has been banging the CDC drum for some time.[22] Without a client cause, success has eluded them: there is next to no demand from corporate sponsors, not least because having transitioned from providing DB to pure DC pensions, employers

[22] See the author’s letter published in the Financial Times on 7th May 2018.

have no intention of reassuming any pensions-related risks, however remote.

However, Royal Mail's travails have provided CDC lobbyists with an opportunity to leverage their cause by attaching it to help settle what is ultimately a labour dispute, one that is tinged with political overtones given the group's former state ownership. Consequently, it is unknown as to what extent Royal Mail as client owns the CDC agenda when, ordinarily, successful product innovation is customer-driven.

Risk #9: Lack of client ownership of the CDC agenda *Is Royal Mail, as client, the driver or the passenger? The case for CDC may not be being driven primarily by its performance merits. This is not a sound basis for the formation of innovative pensions policy.*

(c) Mind the communication gap

Pension schemes, irrespective of hue, are notorious for their membership's (and shareholders') lack of comprehension of them and engagement with them. They need to be accompanied by clear communications describing the potential risks to members' retirement benefits: expectations management to the fore.

The risk of miscommunication between different stakeholders in a CDC scheme is increased by the lack of clarity as to what "CDC" actually means. Consequently, there are opportunities for misunderstandings between Royal Mail's management and the unions representing the workforce. Indeed, both parties may even misunderstand their own positions because CDC is so ill-defined, let alone fully appreciate the other party's position. Royal Mail is proposing a scheme that includes a guaranteed lump sum of 3/80ths of career average pensionable pay (i.e. DB) combined with a CDC pension for retirement income, targeted at 1/80th of career average pensionable pay per year, plus RPI revaluation; i.e. DC. It is unclear how the DB element will appear on the balance sheet, and the meaning of "target" is wide open to interpretation.

In January 2018 it was reported that "the mediator recommended that the two sides should commit to a so-called "collective defined-contribution" scheme with a defined-benefit element". Months after the media's reporting, Royal Mail's share price peaked at 631p on 11 May 2018, up 67% over the previous six months. More recently it has fallen significantly. Perhaps shareholders are confused.

A more pressing matter is whether the workforce fully appreciates that in respect of their retirement incomes, their former employer will be effectively a disinterested party, with no intention of lending additional support in event of a substantial fall in asset market prices, for example.

Risk #10: Firm/worker miscommunication *It is unclear to what extent there is a gap between the CDC pension scheme that Royal Mail is offering and what its workforce thinks it voted for.*

In parallel, Royal Mail needs to explain precisely how it intends to achieve a fully funded, stable CDC scheme and how any pre-funding may be achieved. The RMPP is not an obvious source of seed assets: had it not closed to future accruals (in March 2018), it was expected to fall into actuarial deficit sometime later in 2018. And it could still do so, if, for example, life expectancy were to improve ahead of actuarial estimates. Royal Mail would then be liable to restore the RMPP to full health.

Conversely, the potential CDC scheme, if robustly structured, is unlikely to leave Royal Mail with any lingering concerns. However, Royal Mail has yet to publish any plans for independent oversight of its scheme.

5.2 The Universities Superannuation Scheme (USS)

(a) Second in line for CDC?

The USS (technically in the private sector, but perceived as quasi-public sector) is currently the loudest canary in the DB coal mine.[23] Its accounting deficit is accelerating rapidly, up by some £9 billion, to £17.5 billion, in the year to end-March 2017 (with assets of £60 billion).[24] On a technical provisions basis the deficit was £12.6 billion.[25]

Combined contributions of 26% (employees 8%, employers 18%) are deemed insufficient to maintain the current scheme (albeit high by private sector standards), in which roughly 37% is required. Consequently, the USS is primed for change, however unwelcome that may be. Universities UK (UUK) has proposed ending all future DB accruals, but it is unlikely to successfully sell pure DC to the 400,000 academics and other university staff within the scheme. Given that Royal Mail would appear to have successfully sold "CDC" to its employees, UUK will be observing how Royal Mail performs on the CDC test bed.

Meanwhile, resolution of the USS dispute has descended into wrangling over technical modelling assumptions; the "discount rate dance" continues apace. It will do nothing to assuage the harsh reality of a deteriorating cashflow, which is the ultimate arbiter as to the USS's sustainability.

(b) The Government: not impartial

It is not clear how the USS will emerge from the current impasse. Trust between the key stakeholders has perhaps been fundamentally undermined by the rapid succession of different reforms to the retirement benefits package. Perhaps most notably is the prospect of ending all DB accruals, when a mixed DB/DC package was only introduced in October 2016.[26]

But, given British universities' contribution to the economy, the Government is not an impartial observer. It may yet be persuaded to formalise some form of CDC structure to help resolve the USS's labour dispute, despite already having taken a close look at CDC.[27]

Indeed, the Treasury, tempted by the USS's assets, could facilitate a repeat of the Royal Mail approach, taking the assets in-house and meeting the liabilities on a pay-as-you-go basis (thereby slowly digesting the deficit). A clean CDC scheme could then be introduced (in respect of future service only). Ultimately, the future for CDC in the UK may well boil down to

[23] The USS offers a DB 1/75 accrual rate up to a salary threshold (£57,216.50 for the 2018/19 tax year, automatically revalued each April in line with USS pension increases), along with a tax-free cash lump sum of 3x pension. The scheme is DC above the threshold.

[24] As measured by the Financial Reporting Standards (FRS) issued by the U.K.'s Accounting Standards Board and Financial Reporting Council. Accounting standards assume that all the investments are in AA corporate bonds; the USS's actual portfolio is far more diverse, and may, or may not, generate a better return.

[25] Technical provisions are a funding target which U.K. schemes must set, based on The Pensions Regulator's rules. They offer a target figure on which to base a recovery plan to plug deficits.

[26] This limited the DB element of the scheme to the first £55,000 of a member's salary, with DC provision above that. Previously, for pre-2011 members, the package was entirely DB.

[27] Reshaping workplace pensions for future generations, chapter 5; DWP, November 2013.

political considerations. It will certainly not be because of a proven performance track record.

5.3 Public service pensions

Today the private sector is almost a DB desert. Over the last year, the charity sector witnessed the number of DB schemes closed to accrual jump from 43% to 58%.[28] But the UK's public sector remains resolutely DB, notwithstanding the schemes' deteriorating financial condition.

The principal funded scheme, the Local Government Pension Scheme (LGPS), had a £37 billion deficit at its last valuation.[29] The unfunded schemes (NHS, teachers etc) are less readily assessed (there being no assets to compare against liabilities), but their cashflow is rapidly deteriorating. In 2005-06 there was a £200 million deficit between contributions and pensions paid. Notwithstanding the Hutton reforms, this had rocketed to £11.2 billion in 2016-17, a gap that had to be plugged by the Treasury out of general taxation. It continues to grow rapidly and is forecast to stand at £16.6 billion in 2022-23.[30]

It is conceivable that a future government will consider CDC for the public sector (funded or unfunded), but currently the issue is being ignored. Indeed, this is an arena into which politicians fear to tread. Without cross-party political support, no one is likely to propose ending DB schemes' future accruals. And introducing retrospective changes, such as converting accrued DB pension rights to "target income", would be considered beyond the pale, albeit that this is now happening abroad (New Brunswick, for example).

5.4 The DWP's stance

The DWP's position on CDC schemes is that *"while we look at options, it is not right to advise on timescale, delivery or feasibility"*.[31] What is clear is that any change to legislation would not be bespoke to Royal Mail, and would follow the parliamentary process, including a consultation.

One potential avenue could be to introduce a slightly different definition of "money purchase", to include risk pooling amongst members, accompanied by an explicit statement that "target" incomes could not under any circumstance develop a (notional) funding deficit, thereby accommodating CDC schemes.

6. HOW TO FIX ROYAL MAIL

Today, workplace pension schemes are set up from the wrong perspective, with the employer/provider relationship pre-eminent. Employers choose their providers, and then, typically, the selection of the funds works primarily for the employer (low risk) and provider, not necessarily for the employee.

A survey of auto-enrolled scheme members found that an extraordinary 39% of those surveyed were unaware that they were a member of a workplace pension scheme.[32] It also found that 95% had never tried to change their fund, 91% did not know where their funds were invested, 80% did not know how much was in their pension pot and 34% did not know who their pension provider was.

[28] The average DB scheme funding level for the biggest 40 charities in England and Wales dropped from 86% to 82% during 2017-18 (Hymans Robertson). All FTSE 100 companies' final salary DB schemes are now closed, and only 19 still provide any DB benefits to a "significant number of employees" (JLT Employee Benefits).

[29] As at 31 March 2016: total assets of £213 billion, liabilities £250 billion.

[30] Autumn Budget 2017, Table C.6: Total managed expenditure; HM Treasury, November 2017.

[31] The Financial Times Josephine Cumbo, , 1 May 2018.

[32] Decision Technology. Survey size: 938 auto-enrolled scheme members (2017).

Engagement is clearly lacking, partly because being a member of a nebulous occupational pension scheme does not engender a sense of personal ownership. Few scheme members have, for example, identified a beneficiary after they die. Workplace-derived savings should be as personal as a bank account.

Royal Mail does not need a new CDC scheme. Indeed, there is no need for any entirely separate workplace-dedicated savings architecture. Each employee could have his own, personalised, savings pot, capable of accommodating both his own *and* his employer's contributions.

6.1 Defaults to the fore

During the period of accumulation, individual DC pots should be invested in diversified, low-cost default funds, providing economies of scale. After reaching private pension age (which should be 60; 55 is much too early) employees and retirees should be defaulted into, say, 15 or 20 years of income drawdown, with the remainder invested in low-cost default funds. This is "auto-protection", detailed by the author in 2017, [33] and subsequently (March 2018) recommended to the Government by the Work and Pensions Committee.[34] Later on in retirement, longevity risk should be pooled by default, in the form of a lifetime annuity, commencing at some age between 75 and 80. This is "auto-annuitisation", to mitigate the risk of running out of money. Consequently, the collective aspect of the package would increase in later life. The choice to opt out would be available at each stage.

6.2 The default funds

(a) Use with-profits funds[35]

The default funds could be in the form of with-profits funds, which share many of a CDC scheme's attributes and underlying performance drivers. This arrangement would:

(i) Preserve individual property rights (witness with-profits funds' active secondary market).
(ii) Extend the investment horizon and harness economies of scale through investment pooling.
(iii) Could be accommodated within today's legislative framework.

The funds would:

(i) Not provide guarantees.
(ii) Include regulated consumer protections (including a default fund charge cap), as per today's occupational pension schemes.
(iii) Be overseen by a strong, independent, governance body (see section 7).

The with-profits funds could be arranged in a number of different ways. One approach could be to use a series of unitised with-profits funds during the asset accumulation phase, units being purchased with each contribution.[36]

[33] Auto-protection: auto-drawdown at 55, auto-annuitisation at 80; CPS, March 2017. In 2010 the author proposed the end the annuitisation requirement provided that both the state and the individual are protected (see Simplification is the key; stimulating and unlocking long-term saving; CPS, June 2010). Pension freedoms were introduced in 2015, but unfortunately the protection part was not implemented: this prompted the proposals for auto-protection.

[34] Pension freedoms, Ninth Report of Session 2017–19; Work and Pensions Committee, March 2018.

[35] With-profits funds were conceived by life insurers as a means of distributing funds' unplanned surpluses, perhaps arising from lower than anticipated death rates. They subsequently evolved as a form of long-term collective investment vehicle with the flexibility to pursue a more adventurous investment policy.

[36] The price of a unit would be determined by the fund's prevailing asset value (thereby reflecting the performance of the fund).

The CDC's "target" language could be used throughout accumulation.

Upon reaching private pension age, the units would be "cashed in" through a transfer into a conventional with-profits fund, which could provide drawdown income until auto-annuitisation, funded by a terminal bonus. The funds could be age-cohort specific, each perhaps five years in "length", which would help mitigate the risk of over-distribution.

Ideally the retirement pots would be included on the forthcoming pensions dashboard, alongside State Pension provision and other personal and occupational pots.

(b) Market value reductions (MVR)
With-profits funds use market value reductions (MVR) to balance the interests of continuing investors with those leaving the fund. MVRs are not fixed; they are based on fund performance over the period invested, and are only applied if the value of the underlying assets is less than the value of the leaver's plan (including bonuses).

The role of MRVs in the context of the aforementioned default funds will need to be defined, but they are likely to be relevant at the time of retirement, the commencement of auto-annuitisation and any "cashing-in" transfers in the interim period.

(c) Reputation: more work needed
The Equitable Life scandal of the 1980s damaged the with-profits brand and, inevitably, policy holders became suspicious of complex products piloted by black boxes, particularly when they may determine policyholder bonus decisions. The with-profits product subsequently went into significant decline as demand waned and providers withdrew from the market.

And although Equitable closed nearly 20 years ago, opacity and accountability issues remain. The Financial Conduct Authority's (FCA) 2010 review of with-profits policies criticised insurers' inability to clearly communicate how their funds operate (key to managing policyholders' expectations). The issue was more recently illustrated by a financial planner who described one MVR as "punitive and arbitrary and completely unfair."[37] In addition, the FCA identified weak monitoring of with-profits funds, and expressed concerns that policyholders' interests were not properly protected.

Clearly, the governance body will have to pay particular attention to the manner in which any decisions are made concerning any with-profits fund MRVs. Meanwhile, the FCA's 2017-18 business plan includes a thematic review into the with-profits sector, which could produce some useful recommendations.

6.4 Providers
Royal Mail's role could be limited to arranging for the bulk provision of retirement savings accounts for its workforce, negotiating the default funds and making regular employer contributions as negotiated with the unions.[38]

(a) Retirement accounts: use NEST
The obvious provider of a large number of individual accounts is the National Employment Savings Trust (NEST). Over six million members have now been automatically enrolled into NEST, by over 600,000 UK employers: NEST's

[37] Ray Blake, a financial planner at Talking Finances, referring to Phoenix Life applying an MVR which equated to 22% of a £101,000 policy.

[38] There is no need to combine any ancillary employee benefits package with retirement provision.

systems are well accustomed to handling large numbers of individuals.

(b) Default funds: lack of choice?

Given the size of its workforce, Royal Mail and NEST should be in a strong position to negotiate access to low cost with-profits funds. However, there is a lack of competition: there are very few providers actively seeking new with-profits business. Prudential's PruFunds range dominates the with-profits market, with £32.6 billion in assets at the end of September 2017. Aviva has recently launched its Smooth Managed Fund to compete with Prudential, and other providers include NFU Mutual, Royal London and Wesleyan. Legal & General closed its with-profits fund in 2015.

(c) NEST as funds provider

An alternative approach would be to use NEST's existing (default) Retirement Date Funds for the asset accumulation phase.[39] NEST is currently prevented from providing decumulation products to its members but the author, and others, have lobbied Parliament to change this. It would appear that common sense will ultimately prevail: the recent Work and Pensions Committee report recommends that NEST should be allowed to offer a new default drawdown pathway.[40]

If this were to come to fruition, the implications for NEST's membership would be hugely positive because NEST could extend its investment horizon by another 15 to 20 years. Investment efficiency could be boosted by increasing the asset allocation towards equities and less liquid assets such as infrastructure. Fund returns would then be higher *not just in retirement but from the time of joining the scheme,* potentially compounding over a 40+ year period for the individual.

7. STRONG GOVERNANCE REQUIRED

A professional and independent governance board's principal role should be to preserve scheme sustainability, closely allied to maintaining intergenerational fairness. It should particularly guard against over-distributing to retirees, which reduces what could be subsequently delivered to younger members. Alarm bells include demographic instability (including a shrinking workforce and actuarially unanticipated improvements in life expectancy), weak investment performance and accelerating inflation, all of which conspire against sustainability.

Particular emphasis should be placed on cashflow scrutiny; historically, with-profits funds have placed too much reliance on nebulous valuations reliant upon long range assumptions for discount rates, asset performance, etc. (although these could provide an early harbinger of trouble to come).

The board's members could consider themselves as reputation guardians, behaving as principals, not agents, with a total commitment to transparency and the use of multimedia for communication. Investment performance, for example, should be regularly disclosed online, publicly, not least to minimise the scope for surprises.

[39] For details, see Looking after members' money; NEST's investment approach, page 13; NEST.

[40] Pension freedoms, Ninth Report of Session 2017–19; Work and Pensions Committee, March 2018.

8. A POLITICAL PERSPECTIVE

8.1 CDC: a political metaphor?

The word "collective" resonates with those on the left of the political spectrum, along with CDC's socialisation (i.e. sharing) of risks. Henry Tapper paints an alluring picture:[41]

CDC moves beyond the practices of with-profits funds in the latter part of the 20th century and reconnects with the earlier principles of mutual societies which were based on mutual protection. Of course, we have tools in the twenty first century that were not around in the nineteenth, when mutuality first prospered. But CDC links back to that earlier "disintermediated" time, when what people got in retirement was linked to the collective endeavour and integrity of a mutual society.

A conference speaker once said *"there is no economic justification for CDC: its value is behavioural, bringing a collective mindset to people, i.e. there is someone looking after my best interests, collectively, against the market".*[42] But individuals lack the organisation capabilities to collectivise risk, and few people are well placed to assume life expectancy risk on their own. In addition, many people do not want control or decision-making responsibility for something that they do not understand.

CDC prompts some major societal questions, such as are we a collective or a nation of individuals? The issue of property rights goes to the heart of the debate, and how we answer this question has implications for our national identity.

8.2 Personal responsibility

We cannot ignore an inconvenient truth. The best way to reduce the risk by pot exhaustion is to consume less to save more. But most people are not saving enough for their retirement, no matter how efficient the investment process; the risk of running out of money is too remote from day-to-day experience to prompt additional saving now. In essence, many people are unwittingly playing chicken with their life expectancy, sub-consciously relying on someone else (i.e. the state) to bail them out, if necessary.

9. CONCLUSION

The DWP is sensibly demurring on proceeding with CDC schemes. Notwithstanding their attributes, the lack of private sector demand for them and CDC schemes' lack of individual property rights suggests that the innovation opportunity rests in improving with-profits funds' governance arrangements. This can perhaps be accompanied with a rebranding to assuage an unfortunate history. The evidence all points to an obvious conclusion – CDC schemes in the UK are superfluous.

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[41] CDC: with-profits in disguise? Henry Tapper's Pensions Playpen, May 9, 2018.

[42] Stefan Lundbergh, Head of Innovation, Cardano Risk Management.

ABOUT THE AUTHOR

Michael Johnson is a Research Fellow at the Centre for Policy Studies (CPS). He trained with JP Morgan in New York and, after 21 years in investment banking, joined the actuarial consultants Towers Watson. Subsequently he was responsible for the running of David Cameron's Economic Competitiveness Policy Group.

Michael is the author of more than 40 pensions-related papers published through the CPS, sometimes supported by both Conservative and Labour peers. A number of his proposals have been implemented, including the scrapping the annuitisation requirement ("freedom and choice"), the pooling of the LGPS's funds, and the introduction of the Lifetime ISA and bonus. More recently he detailed proposals for a Workplace ISA to compete with occupational pension products, residing within the Lifetime ISA.

In April 2018 the Work and Pensions Select Committee endorsed three of Michael's earlier proposals: there should be a new default decumulation pathway to support the disengaged ("auto-protection"); that NEST should be permitted to provide it; and there should be a single, public, mandatory pension dashboard.

Michael is occasionally consulted on pension reform by serving Ministers, shadow Ministers and the Cabinet Office. He has given oral and written evidence to Select Committees in both Houses of Parliament.

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