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GENERATING BETTER DC OUTCOMES THROUGH IMPROVED INVESTMENT GOVERNANCE AND INNOVATIVE INVESTMENT THINKING

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INTRODUCTION

"Adding one per cent per annum to long-run risk-adjusted returns really is the difference between retirement bliss and retirement penury."

Unlike defined benefit (DB), with its increasingly negative cash flow and de-risking focus, defined contribution (DC) has positive cash flow and a growth focus. However, most DC schemes, DC default funds in particular, still predominantly invest, via insurance platforms, in highly liquid asset classes. As a result, most are missing out on the many longer-term illiquid asset opportunities and the associated illiquidity and complexity risk premia that populate the asset portfolios and returns of most DB schemes. This could amount to forgoing a one per cent per annum increase in long-run risk-adjusted returns.

In this paper, we turn our attention to the seemingly intractable problem of improving DC outcomes to retirement[1] without placing undue reliance on raising contribution levels to punitive levels. We suggest that by advancing DC investment governance and innovative investment thinking to leading-edge DB standards, DC schemes would be well positioned to capture a wider range of long-run rewarded risk premia, by embracing those asset classes and investment techniques, increasingly utilised by DB schemes, including the integration of environmental, social and governance (ESG) factors into investment decision making. After all, most DC schemes have a very long investment horizon and, as noted above, benefit from positive cash flow.

This process would be greatly assisted by much needed DC scheme consolidation, regulatory change to overcome the real and perceived impediments to accessing these risk premia and changing the prevailing cost minimisation mindset applied to investment to one of maximising net value added. Collectively, these measures could add as much as one per cent per annum to long-run risk-adjusted returns. Over 40 years this compounds to nearly 50 per cent for those DC members with a suitably long investment horizon. Of course, behaviourally-focused measures that heighten DC member engagement, widen the coverage of long-term saving and *sustainably* raise DC contribution levels, could further enhance member outcomes and lay the foundations for a retirement to be enjoyed and not endured.

[1] A good DC outcome is one that provides for a desired and sustainable level of spending in retirement.

COLUMBIA THREADNEEDLE INVESTMENTS' PENSION THOUGHT LEADERSHIP

At Columbia Threadneedle Investments we have continually focused on addressing the inadequacy of retirement provision and acting as a catalyst for change. After all, preventing people from sleepwalking into retirement penury is fast becoming the biggest socio-economic challenge facing the UK, given the move from a system of generous pension provision, collective passivity and certain outcomes in DB, where *everything is done for you*, to one that is less generous, with greater individual responsibility and less certain outcomes, in DC, where *everything is down to you*.

Our earlier papers considered how the use of simple and subtle behavioural interventions might overcome the behavioural barriers to individuals not saving sufficiently for their retirement and not investing these accumulated savings appropriately during their working lives. As a logical progression, we then sought to identify the socio-economic, demographic and investment risks and challenges to be overcome post-freedom and choice by those individuals principally reliant on their DC pension pots at and in retirement. After all, while improving financial outcomes to retirement remains the principal focus of policymakers and industry thought leaders, DC decumulation is steadily attracting the attention of both. This paper moves the discussion on yet further by looking at how DC outcomes can be further improved, by placing a much greater emphasis on investment governance and capturing a wider range of long-run rewarded risk premia.

CONTENTS

EXECUTIVE SUMMARY

- Unlike defined benefit (DB), with its increasingly negative cash flow and de-risking focus, defined contribution (DC) has positive cash flow and a growth focus. Most DC schemes also have a very long investment horizon. However, most DC schemes, DC default funds in particular, still predominantly invest, via insurance platforms, in highly liquid asset classes. As a result, most are missing out on the many longer-term illiquid asset opportunities and the associated illiquidity and complexity risk premia that populate the asset portfolios and returns of most DB schemes. These can add as much as one per cent per annum to long-run risk-adjusted returns.
- Illiquid real and alternative assets, such as real estate and social and economic infrastructure, are a heterogeneous group of assets. For those DC schemes with a sufficiently long investment horizon, they typically offer a markedly different risk-return profile and pattern of returns to that of public equity and credit markets, upon which many DC default funds overly rely. Real estate and infrastructure, in particular, offer diverse return drivers, long-term cash flows that are often implicitly or explicitly linked to inflation, and returns that are typically less sensitive than equity or credit returns to the macroeconomic environment, albeit sometimes with an element of political and regulatory risk.
- The key impediments to DC schemes investing in illiquid assets are manifold but not insurmountable. This is certainly true for larger DC schemes, most of which have scope to consider an allocation to illiquid strategies of five to 15 per cent. These impediments should be overcome by regulatory change and guidance, not least to remove the real and perceived regulatory barriers to illiquid investment, accelerate DC consolidation and to accommodate the increased charges and performance fees associated with illiquid assets within the charge cap. Changing the prevailing cost minimisation mindset applied to investment to one of maximising the net value added, and insurance platforms undertaking the necessary investment to cater for illiquid assets are also prerequisites.
- The 10/30/60 retirement rule suggests that better DC outcomes principally derive from enhancing long-run risk-adjusted returns. These, in turn, flow from improved investment governance and innovative thinking, rather than by placing undue reliance on raising DC contribution rates to levels that many regard as punitive and unsustainable.
- By advancing DC investment governance and innovative investment thinking to leading-edge DB standards, DC schemes would be better positioned to embrace those asset classes and investment techniques increasingly utilised by DB schemes, including the integration of Environmental, Social and Governance (ESG) factors into investment decision making.
- Getting the asset mix and its ongoing dynamic management right really is the big investment decision and key to constructing a fit-for-purpose DC default fund. However, most DC default funds fail to diversify across multiple lowly correlated risky assets across multiple time periods. This typically leaves DC members wide open to periods of exceptional price and returns volatility and also periodically large capital drawdowns.
- Larger DC schemes are likely to proliferate and reach critical mass, principally as a result of the larger master trusts taking an ever increasing slice of the UK DC market and through natural attrition. However, DC decision makers should be required to regularly consider whether or not scheme members' interests would be best served by transferring them to another DC scheme, or tPR-authorised master trust.

- Given that climate change poses significant risks to both the global economy and global financial stability, sudden sizeable return impacts are likely to dominate those portfolios that fail to build in sustainability themes.
- There is scope to increase DC savings rates, especially by using simple behavioural interventions to address the behavioural impediments to long-term saving, just not to the extent that many suggest.
- As DB benefits disappear and the state pension is paid ever later in life, so people will become increasingly dependent on their DC pension pots to secure their desired standard of living in retirement. Failing to move the DC investment governance and innovative investment dial sufficiently far forward, especially in the absence of a material increase in contributions, will risk a combination of enforced longer working lives and retirements that are increasingly endured and not enjoyed. Adding one per cent per annum to long-run risk-adjusted returns really is the difference between retirement bliss and retirement penury.

INVESTMENT GOVERNANCE

"The more optimal investment decision making and risk management that follows from applying best practice investment governance and innovative investment thinking… should dramatically improve long-term financial outcomes."

Investment governance is the mechanism by which a decision making body – a trustee board, investment committee, defined contribution (DC) governance committee, independent governance committee (IGC) or Chief Investment Officer (CIO) – turns risk into reward. The level of investment governance employed by a decision making body is, by definition, commensurate with its collective capabilities, its specialist investment knowledge, the efficacy of its time management and how well it organises itself. Integral to this process is how well the decision making body approaches investment decision making, reaches its investment decisions and implements them.[2]

DEFINING BETTER INVESTMENT GOVERNANCE

So what does the investment governance gold standard comprise and what potentially is the ultimate reward to those decision makers who adopt and apply its central tenets?

Well, in 2006, governance specialist Keith Ambachtsheer estimated that by adopting an advanced level of investment governance, leading-edge institutional investors, notably defined benefit (DB) pension funds, could add one to two per cent per annum to long-run risk-adjusted returns.[3] Indeed, the more optimal investment decision making and risk management that follows from applying best practice investment governance and innovative investment thinking should dramatically improve long-term financial outcomes. This is especially true when applied to actively harvesting a genuinely well diversified pool of the economically or behaviourally validated risk premia of illiquid real and alternative asset classes.

A year later, governance luminaries Gordon Clark and Roger Urwin, drawing on their extensive experience of working with the world's leading institutional asset owners, observed 12 tenets of best practice investment governance and innovative investment thinking that had led to superior risk-adjusted returns, again with particular reference to exemplar DB pension funds.[4]

Since then, with ever greater complexity surrounding investment solutions and investment decision making, many of the better governed DB schemes have additionally taken a lead from the more demanding corporate governance requirements that apply to publicly listed companies to yet further improve member outcomes.[5]

[2] See: Andrew Clare and Chris Wagstaff. The Trustee Guide to Investment. Palgrave Macmillan. 2011. pp.478-480.
[3] Keith Ambachtsheer, Ronald Capelle, and Hubert Lum. Pension fund governance today: strengths, weaknesses and opportunities for improvement. Working paper submitted to the Financial Analysts Journal. October 2006.
[4] Gordon L. Clark and Roger Urwin. Best-Practice Investment Management: Lessons for Asset Owners From the Oxford-Watson Wyatt Project on Governance. September 2007.
[5] See: The UK Corporate Governance Code and Guidance on Board Effectiveness. Financial Reporting Council. July 2018.

DO THE INVESTMENT GOVERNANCE CHALLENGES OF DC DIFFER FROM DB?

Of course, DB is not DC. DC schemes are smaller and typically less well diversified than DB, and unlike DB, with its increasingly negative cash flow and de-risking focus,[6] DC has positive cash flow and a growth focus.

However, most DC decision makers[7] are less inclined to cast the investment decision making net as far and wide as their DB counterparts, if the risk-adjusted returns likely to derive from the asset mix of their default fund, into which the overwhelming majority of DC members invest, are believed to be adequate. Indeed, for many DC decision makers, simply *doing things right*, or addressing the hygiene factors, rather than adding value and so improving outcomes by *doing the right things* and *thinking the right way*, is a prevalent governance model.

This dichotomy of approach is a consequence of a number of factors. Firstly, for DB, investment decisions are proportionate to and underwritten by the sponsoring employer's covenant, or balance sheet. If the covenant fails, then the member is protected by the Pension Protection Fund.[8] However, for DC, it isn't the employer's balance sheet but the, typically disengaged, member who shoulders the risk of a poor investment outcome. Then there's the ever greater levels of non-investment based governance and regulatory requirements that DC decision makers, particularly DC trustees, must continually embrace, often to the detriment of spending time advancing the scheme's investment governance. Finally, for many trust-based schemes, DC investment matters are still treated as subsidiary to DB.

[6] Negative cash flow is a consequence of pensioner benefit payments exceeding cash paid into the fund. The latter typically comprises employer deficit reduction contributions, if the scheme is less than fully funded, investment income and, if the scheme is still open to accrual, active member contributions. As DB schemes approach full funding, at which point their assets are sufficient to meet their projected liabilities, so the requirement to generate investment returns diminishes. DB schemes seek to be fully funded before the point of peak pensioner benefit payments is reached, as the latter compromises the ability to reach full funding.

[7] Throughout this paper the terms "DC decision makers" and "DC decision making bodies" refers to those who determine the infrastructure of and have responsibility for the administration and management of DC schemes rather than DC members, acknowledging, of course, that the latter are the ultimate decision makers.

[8] Given this, an element of moral hazard underpins DB investment decision making. However, it is incumbent on the Pensions Regulator to ensure that the investment decisions DB trustees make are not disproportionate to the strength of the sponsor covenant.

MOVING TO BEST PRACTICE INVESTMENT GOVERNANCE

"Best practice governance for all pension schemes starts with considerations of size and diversity. After all, smaller decision making bodies with defined accountabilities perform better than large, while cognitive diversity… further optimises decision making, not least by avoiding groupthink."

Combined, all of this suggests the investment governance challenges faced by each differ. However, in practice the differences are not so marked. Indeed, there is considerable overlap between the two structures in that each group of decision makers are aligned in their quest to generate good member outcomes. Moreover, best practice governance for *all* pension schemes starts with considerations of size and diversity. After all, smaller decision making bodies with defined accountabilities perform better than large, while cognitive diversity, deriving from differences in gender, age, ethnicity, socio economic, educational and cultural background further optimises decision making, not least by avoiding groupthink, the culmination of unchallenged decision making that results from homogeneity, or single mindedness. When it comes to group decision making, being different is just as important as being smart, if not more so.[9]

Best practice governance is also characterised by a high level of organisational effectiveness, efficient time management, the sharing of knowledge and expertise, decentralised decision making, moving away from the disruptive short-term mindset of quarterly monitoring of investment performance and, as intimated above, the constructive challenge of existing standpoints and new ideas. Indeed, as noted earlier, the level of investment governance employed by a decision making body is, by definition, commensurate with its collective capabilities, the efficacy of its time management and how it organises itself. So, if the decision making body can organise itself to operate in a nimble fashion, focus on impactful strategic imperatives and not the minutiae or that which is beyond its control, intelligently share and capture the collective knowledge, experience and expertise of all in the room, while encouraging challenge and debate, then more optimal investment and risk management decisions, and more timely implementation and efficient execution of these decisions should result.[10]

However, while much of the leading edge thinking around investment and risk management, deriving from the best practice investment governance articulated in the two seminal papers from the noughties and more contemporary thinking around corporate governance, has been successfully applied and developed by many of the UK's better resourced and more forwarding thinking DB pension schemes, the overwhelming majority of the UK's 32K DC schemes continue to lag their exemplar DB brethren by some margin. This is particularly true of the 30K micro DC schemes, comprising less than 12 members.[11] Indeed, the Pensions Regulator (tPR) found a significant correlation between the effectiveness of pension scheme governance and scale.[12] Moreover, in many cases a governance model that supported 4.3m active members of occupational DC schemes pre-auto enrolment, in 2011, still prevails today when active DC membership exceeds 13m and DC assets amount to nearly £400bn.[13]

[9] See: James Surowiecki. The Wisdom of Crowds: Why the many are smarter than the few. London: Little, Brown. 2004. Introduction XIII. Also see: Missing persons: Gender balance in asset management. Chris Wagstaff. Columbia Threadneedle Investments. October 2015.
[10] See: Clare and Wagstaff (2011). op.cit. p.477.
[11] Scheme numbers sourced from: DC trust: presentation of scheme return data 2018 - 2019. The Pensions Regulator. Data at 31 December 2018.
[12] See: DC trust-based pension schemes research: summary report 2018. The Pensions Regulator.
[13] See Chapter 3: The DC Future Book 2018. The Pensions Policy Institute in association with Columbia Threadneedle Investments. September 2018.

Of course, while, in many cases, the one hundred or so larger DC trust-based occupational schemes, tPR-accredited master trusts and contract-based DC schemes, or work-based group personal pensions (GPPs),[14] are the exception to the rule, there is still much even these seasoned, well resourced and well informed institutional investors could do to improve DC member outcomes,[15] as many of them acknowledge.[16] After all, the *10/30/60 retirement rule* suggests that better DC outcomes principally derive from enhancing long-run risk-adjusted returns, which, in turn, flow from improved investment governance and innovative thinking, rather than by simply raising DC contribution levels.[17]

Moreover, as the transition from DB to DC gathers pace, and individuals increasingly become solely reliant on their DC pots to support their standard of living in retirement[18] and, in so doing, shoulder almost all of the decision making and consequent investment, inflation and longevity risks, so the potentially dire consequences of not being provided with appropriate investment solutions, and the requisite frames of reference and tools to inform decision making, will rise over time.[19] Master trusts, in particular, already with over 7.7m active DC members and almost 14m DC members in total, increasingly assume the greatest responsibility to helping DC savers achieve desired retirement outcomes.[20]

So, if retirement outcomes through DC provision are to be much improved, the imperative must be for DC schemes, particularly master trusts, to embrace and replicate much of what has worked well for leading-edge DB schemes, in a DC context. That includes:

- agreeing and documenting the DC decision making body's beliefs around investment, risk, member engagement, governance and value for money;
- employing a strategic and dynamic asset allocation that employs a diversity of return drivers, to smooth the investment returns journey to *and*, ideally, through retirement, post-freedom and choice;
- adopting a longer-term and more strategic view on investment by harvesting the illiquidity and complexity premia that flow from greater investment in heterogeneous illiquid real and alternative asset classes;
- integrating environmental, social and governance (ESG) factors, particularly climate risk, into investment decision making, and
- focusing on the potential net value added, not just the explicit costs, of embracing illiquid and other asset classes and investment strategies. After all, every equation has two sides.

Collectively, these initiatives could add as much as one per cent per annum to long-run risk-adjusted returns. That compounds to an additional 35 per cent of risk-adjusted return over 30 years and almost 50 per cent over 40 years for those DC members with a suitably long investment horizon.[21]

[14] The DWP estimates there are 60 trust-based DC schemes with assets of £250m or more and 140 schemes with 5,000 or more members. These estimates exclude contract-based DC schemes. See: Investment Innovation and Future Consolidation: A Consultation on the Consideration of Illiquid Assets and the Development of Scale in Occupational Defined Contribution schemes. DWP. February 2019. p.21.

[15] Some sponsoring employers of contract-based DC schemes, which are overseen by Independent Governance Committees (IGCs), add another layer of governance by setting up their own DC governance committees, advised by an investment consultant, to yet further enhance the member experience and outcomes. This they do by working with the pension provider, and ultimately the IGC, on matters such as the provision of bespoke DC default strategies and self select funds, member communications and negotiating charges. Additionally, better governed DC schemes are accredited with The Pension Quality Mark (PQM), developed by the PLSA in 2009. This accreditation is designed to increase confidence in pensions by helping employers to independently demonstrate the quality of their DC scheme.

[16] Many GPPs and master trusts offer default strategies heavily weighted to passively managed and highly liquid equities and bonds. Their commercial proposition, in terms of price, is a potential barrier to moving these defaults to a more sophisticated solution. However, there is scope to increase the amount spent on the investment solution and still present an attractive total price which offers good value to members. Indeed, as is discussed later, there is a need to collectively move from a cost minimisation mindset to one of net value added.

[17] The *Russell* 10/30/60 Retirement Rule shows that up to 90% of the stream of income paid out in retirement via income drawdown is attributable to investment growth to (30%) and through retirement (60%). Perhaps counter intuitively, the amount saved during one's working life typically accounts for only 10% of the stream of income paid out during retirement. See: The Russell 10/30/60 Retirement Rule. Russell Investments. July 27, 2015.

[18] 61% of all private sector workplace pension members (including active, deferred and pensioner) are in DC schemes, and 90% of all active members invest with a DC scheme. Source: DC Trust (2018-2019). op.cit.

[19] See: Generating retirement outcomes to be enjoyed and not endured: Why we must harness the opportunities and overcome the risks at and in retirement in a world of freedom and choice. Chris Wagstaff. Columbia Threadneedle Investments. February 2018.

[20] DC Trust (2018-2019). op.cit. The Atlas Master Trust is one of a number of master trusts that understands the value of employing an advanced level of investment governance, as illustrated in its recent paper: The governance revolution: Proactive governance as the game changer in the new era of pension provision. Atlas Master Trust. April 2019.

[21] The PPI estimates that an additional 1% per annum of investment return could potentially derive solely from DC schemes allocating a greater percentage of their assets to illiquid and alternative asset classes. See: DC scheme investment in illiquid and alternative assets. Daniela Silcock. The Pensions Policy Institute. March 2019. p.9. Please note that returns are not guaranteed.

Additionally, as intimated earlier, consolidating the UK's 30K micro schemes could, through the resulting economies of scale and likely gains in investment governance and innovative investment thinking, potentially add yet more. After all, the UK DC market, with its largest 200 DC schemes accounting for 93 per cent of DC assets, is significantly more fragmented and unevenly distributed than in countries with a more mature DC market, such as Australia, where there are about 200 DC schemes in total.[22] The same could be true of moving to a collectivised benefit structure, such as collective defined contribution (CDC), given the latter's suggested longer-term focus on growth assets.

INVESTMENT GOVERNANCE DOESN'T HAVE TO DO ALL OF THE HEAVY LIFTING

None of the measures suggested so far require additional sponsor or member contributions. This has been deliberate as the solution to generating better DC outcomes cannot solely lie in seeking to raise contribution rates to levels that many regard as punitive and unsustainable. However, that's not to say the focus on improving long-run risk-adjusted investment returns shouldn't be complemented by behaviourally-focused measures that heighten DC member engagement, widen the coverage of long-term saving and nudge DC contribution rates from their current low base to levels that are both more realistic and sustainable. Indeed, the combination of heightened contribution levels and improved long-term risk-adjusted returns could dramatically enhance DC member outcomes and lay the foundations for a retirement to be truly enjoyed and not endured.[23]

[22] DC Trust (2018-2019). op.cit.
[23] For how to generate better retirement outcomes in the decumulation phase, see: Wagstaff (2018). op.cit.

DOCUMENTING INVESTMENT AND WIDER DC BELIEFS

"For DC decision making bodies the beliefs net should extend far beyond considerations of just investment… [to] minimising the myriad risks faced by the overwhelming majority of DC members."

If an investment decision making body – a trustee board, investment committee, DC governance committee, IGC or CIO – is to be effective, and achieve its long-term goals, it should compile a statement of its investment beliefs. This is as true for DC as it is for DB. Indeed, in articulating explicit views on a range of investment phenomena, investment beliefs statements provide both the strategic framework for identifying those investment opportunities that best fit with these beliefs and the implications of these beliefs for the management of the scheme. For instance, these beliefs might include views about how financial markets function, such as whether or not it's believed markets are efficiently priced. That is, whether market prices always fully reflect all that's known about the market. The implications of this belief will, in turn, determine whether and, if so, to what extent active management should be employed in managing which asset classes. Other beliefs might comprise informed thoughts on the relative impact of strategic and/or dynamic asset allocation versus manager selection decisions; the risk premia available on risky, illiquid and complex assets; the desirability of diversifying sources of investment return; whether and, if so, how extreme investment risks should be mitigated, and the merits of integrating environmental, social and governance (ESG) factors, particularly the potential impacts of climate change, into investment decision making.

With its beliefs clearly articulated, the decision making body can then consider whether it has the time, capabilities, expertise and organisational effectiveness and appetite to look beyond simple traditional investment strategies to those that could potentially raise the scheme's expected long-run risk-adjusted returns and prospectively reduce the susceptibility to market drawdowns. If so, then it may be ideally placed to exploit a wider investment opportunity set by employing suitable investment techniques and strategies to capture a variety of long-run risk premia, typically from illiquid real and alternative assets, not previously targeted.

However, for DC decision making bodies the beliefs net should extend far beyond considerations of just investment. After all, a key challenge faced by the trustees, governance committees, IGCs and CIOs of DC schemes is minimising the myriad risks faced by the overwhelming majority of DC members, who, in most cases, typically don't engage with the choices made available to them and are ill-equipped to gauge and assume the investment and glide path risks inherent in DC provision. Additionally, they must ensure their DC members, who bear most, often all, of the costs of the DC scheme, receive value for money. Consequently, the most important decision to get right is the DC scheme's default investment option and default glide path to retirement, into which the vast majority of the scheme's members will invest, typically without a second thought. Figure 1, below, sets out what a best practice set of DC beliefs might comprise.

Figure 1: Sample statement of DC beliefs

Mission	To provide members with good financial outcomes at retirement.
Risk and return	The biggest impact on member outcomes derives from strategic and dynamic asset allocation decisions. Extreme outcomes and the intergenerational variation of outcomes should be mitigated. The default fund should manage risk relative to the needs of the majority of members and relative to how they intend to draw their benefits at retirement.
Engagement and choice	As member engagement with member choices is likely to be infrequent, investment and risk management decisions made by the Trustee are likely to result in better outcomes than that made by the average member.
Value	Governance cost is higher for more complex solutions and should be considered when assessing value. Value can be added through obtaining cost effective exposure to markets or exploiting market inefficiencies through active management or externally validated factors for an appropriate fee.
Governance	Execution of the investment strategy should be delegated with adequate authority to ensure efficient implementation.
ESG	Long-term sustainability issues can have an impact on risk and outcomes. Sustainable investing encompasses the consideration of long-term thematic opportunities and risks, including but not limited to ESG risks. Climate change could be a material financial risk but it also presents opportunities.

GETTING THE DEFAULT STRATEGY RIGHT: THE IMPORTANCE OF STRATEGIC AND DYNAMIC ASSET ALLOCATION AND MULTI ASSET FUNDS

"A fit-for-purpose default strategy should be focused on targeting a deliverable inflation-plus absolute return objective, with lower volatility than equities, be robust against a range of market conditions… with the potential to anticipate and swiftly react to changing market conditions."

Conventional wisdom suggests that the foundation of a good financial outcome at retirement starts with sufficient saving. However, as noted earlier, according to the 10/30/60 retirement rule, the amount saved during one's working life typically accounts for only 10 per cent of the stream of income paid out during retirement, investment growth on those savings pre-retirement might account for 30 per cent, while up to 60 per cent of retirement income is dependent on investment growth during retirement.[24]

Given the enormity of the structural and behavioural challenges and impediments most DC savers face in making an active investment choice, for most utilising a fit-for-purpose default strategy and glide path to retirement arguably remains their best possible option. Indeed, most DC schemes see 95+ per cent of members invest in the default fund and adopt the pre-retirement glide path, typically for the full term of the pre-retirement journey. However, although many default strategies and pre-retirement glide paths meet the needs of most DC savers,[25] a considerable number do not and so are, arguably, unfit-for-purpose.[26] Indeed, given the strong performance of both pure equity and equity/bond portfolios over the past decade, not least since 2011, excepting the increased volatility that adversely affected equity markets towards the end of 2018, many investors have eschewed diversification, just as their predecessors did in the late-1990s, following the sustained equity bull market of the mid- to late-1990s. The same is true of many default strategies and pre-retirement glide paths. Moreover, many default pre-retirement glide paths, post-freedom and choice, still target annuity purchase at a pre-defined destination point, rather than income drawdown.

However, failing to diversify across multiple lowly correlated risky assets across multiple time periods typically leaves investors wide open to periods of exceptional price and returns volatility and also periodically large capital drawdowns, sometimes with recovery periods that extend far beyond the investment horizons of most investors.[27] Given this, a genuinely well diversified and dynamically managed multi-asset strategy, which taps into a multitude of diverse return drivers and risk premia that diversify equity and credit risk, may well be a better alternative for those investors, most of whom will remain in the fund for a considerable period of time, who expect a relatively smooth returns journey but don't wish to compromise expected long-run returns. Indeed, modelling conducted by the Pensions Policy Institute (PPI) demonstrates the low susceptibility of well managed multi-asset strategies to severe drawdowns.[28]

[24] This percentage breakdown assumes that DC retirement benefits are taken via income drawdown, as most increasingly are, rather than via an annuity.
[25] As there is no definitive one size-fits-all solution, given members' differing needs at different stages of the pre-retirement journey, a default strategy must strive to meet the needs of the overwhelming majority of members at any one point in time.
[26] See: Is your default fund fit for purpose?: Are we setting retirees up for failure by default? Chris Wagstaff. Columbia Threadneedle Investments. May 2016.
[27] For instance, the Dow Jones Industrial Average failed to regain its 1929 high until 1948 in nominal terms and 1982 in real terms. The Nikkei Dow's 1990 high has yet to be retraced and the total return of the Finnish stock market is still significantly negative after 19 years. However, nothing beats Austria's 97 year spell of being in negative territory in real terms. Furthermore, in instances of profound political change or revolution, hopes of recovery have been ultimately unfounded. That said, global equity markets retraced their pre-2008 global financial crisis peaks within three years of the crisis' inception.
[28] The Future Book: Unravelling workplace pensions 2017. The Pensions Policy Institute. Chapter 4. pp.58-59.

While there are manifold approaches to managing multi-asset strategies, all seek to deliver, but only the very best achieve, a combination of robust real, or inflation-adjusted, returns with low levels of return volatility and susceptibility to capital depletion. Typically expressed as an 'inflation plus X%' or a 'cash plus Y%' annual returns target, these absolute return expectations are usually comparable to the long-run real return from equities and, as such, sidestep the risks posed by unexpected price inflation. Not that the objective of multi-asset funds is to rival equity performance or replicate any of the other characteristics of equity. Rather, as already suggested, it's to provide a smoother returns experience than that for equity and equity/bond portfolios, by limiting drawdowns.

However, a successful multi-asset approach, of which equities remain a key component of the asset mix, is contingent on a number of conditions holding. Firstly, real equity returns and those of other asset classes in the multi-asset mix should be positive and outperform cash returns. Second, the returns of these other asset classes should be lowly correlated with equities and relatively volatile to dampen equity volatility.[29]

A successful multi-asset approach also demands genuinely skilful strategic and dynamic asset allocation. Indeed, while many dynamic multi-asset approaches have successfully minimised drawdowns, through well thought through diversification and by occasionally taking risk off the table at an opportune time, most are slow to put risk back on and so lag the performance of their peers in the long run. Therefore, making the right asset allocation calls in selecting and dynamically altering the asset mix is by far the biggest determinant of success in adopting a multi-asset approach. That said, *truly* active management also has something to offer as, when properly applied, genuinely skilful active management can provide the icing on the cake.[30]

[29] See: Toby Nangle. The role of multi asset in DC pensions: Turn off the autopilot as the weather worsens. The Future Book: Unravelling workplace pensions 2017. The Pensions Policy Institute. Chapter 5. pp.62-65.
[30] See: 2017: Brave New World. Why active managers are well placed to take advantage of social, economic and political regime change. Chris Wagstaff. Columbia Threadneedle Investments. February 2017.

ASSET ALLOCATION: THE PIVOTAL DECISION IN CONSTRUCTING A FIT-FOR-PURPOSE DEFAULT STRATEGY

Getting the asset mix right really is the big investment decision and key to constructing a fit-for-purpose default strategy. Indeed asset allocation "explains" between 90 to 94 per cent of the variability, or ups and downs, of pension fund returns over time if a broadly conventional asset allocation policy and conventional active fund management is employed.[31] The more dynamically managed the strategic asset allocation mix – and anecdotal evidence suggests it should be more dynamically managed than it currently is by most – the greater the potential contribution of dynamic asset allocation to the variability of returns, accepting that skill in this area is not particularly pervasive. The remainder – the six to 10 per cent – is attributable to market timing and stock selection.

Secondly, between 33 and 75 per cent of the difference in the variability of returns between funds can be "explained" by differences in their respective asset allocation mixes.[32] Finally, on the basis that active fund management *in aggregate* net of costs is a negative sum game, acknowledging the increased prevalence of "closet trackers" at one end of the spectrum that drag down the average active performance and somewhat overwhelm those very talented active fund managers who exhibit genuine skill at the other,[33] means that the asset allocation mix "explains", on average, between 99 and 100+ per cent of absolute pension fund returns.[34]

So getting the asset mix and the asset manager who can dynamically manage this asset allocation right really is the big investment decision.[35] As well as being the biggest decision, it's also the hardest to get right given the challenges of calculating the expected returns and risks – the volatilities and correlations – of all the asset classes considered for potential inclusion in the asset mix. This challenge is further complicated by the asset mix having become increasingly diverse, often including alternative and illiquid assets whose risks and returns are difficult to model.[36] Arguably, as asset classes become more esoteric, so the asset mix should diversify by the asset class's exposure to risk factors than by the name, or descriptor, of the asset class. So, if a default strategy is to be fit-for-purpose, then continually getting the asset allocation decision right is critically important.

So, in summary, a fit-for-purpose default strategy should be focused on targeting a deliverable inflation-plus absolute return objective, with lower volatility than equities, be robust against a range of market conditions, courtesy of well thought out diversification and genuinely skilful and dynamic asset allocation and active fund management, with the potential to anticipate and swiftly react to changing market conditions. Indeed, if better individual and more socially desirable financial outcomes are to be achieved to, and increasingly through, retirement, then the thought given to the design and construction of what can be considered genuinely fit-for-purpose DC default strategies needs to be stepped up. After all, up to 90 per cent of the income taken in retirement depends on it.

[31] Gary P. Brinson, L. Randolph Hood and Gilbert L. Beebower. Determinants of Portfolio Performance. The Financial Analysts Journal, Vol 42 No4, July/August 1986. Roger G. Ibbotson. The Importance of Asset Allocation. Financial Analysts Journal, Vol 66 No2, 2010.
[32] Roger D. Ibbotson and Paul D. Kaplan. Does Asset Allocation Explain 40, 90 or 100 Percent of Performance? AIMR 2000.
[33] See: Wagstaff (2017). op.cit.
[34] Ibbotson and Kaplan (2000). op.cit.
[35] David Swensen, who manages the Yale Endowment and was an early adopter of illiquid investment, is an excellent example of using asset allocation as the key determinant of future returns.
[36] The challenges of this complex task can be mitigated to an extent by harnessing the power of technology and big data.

DIVERSIFYING SOURCES OF RETURN BY ACTIVELY HARVESTING ILLIQUIDITY AND COMPLEXITY PREMIA

"Like any investment decision, the decision to invest in one or a number of illiquid assets ultimately comes down to whether the investment itself is inherently a sound economic proposition with a sufficiently strong rationale to support its inclusion in a portfolio."

The median age of the UK population is 40.5 years.[37] Coupled with the fact that DC pre-retirement glide paths are increasingly geared to income drawdown, rather than annuitisation, suggests most members of DC schemes, who tend to be younger than the median, have a longer investing time horizon than that of most DB schemes. Indeed, as intimated earlier, over 50 per cent of DB schemes are cash flow negative, with most striving to achieve full funding before reaching the point of peak pensioner benefit payments. Yet, despite their positive cash flow and focus on growth, most DC schemes, DC default funds in particular, still predominantly invest, via insurance platforms, in highly liquid, typically publicly quoted, asset classes, through daily priced and daily dealt unit-linked contracts of insurance.[38]

While some DC schemes offer self select pooled funds that invest in commercial real estate,[39] illiquid investments, even in publicly listed form, are typically absent from most DC default funds. As a result, most are missing out on the many longer-term illiquid asset opportunities and the associated illiquidity and complexity risk premia that populate the asset portfolios and returns of most DB schemes. Indeed, Mercer, the global investment consultant, believes DC defaults should consider an allocation to illiquid strategies of five to 15 per cent.[40] However, others argue that for illiquid assets to have a meaningful impact on outcomes, default strategies should target the 15 to 25 per cent allocation of the average Australian Super Fund, so long as the fund's cash flows are sufficiently positive to provide the necessary liquidity.[41]

With their diverse return drivers, long-term cash flows that are often implicitly or explicitly linked to inflation and returns that are often less sensitive than equity or credit returns to the macroeconomic environment, illiquid assets, such as real estate and social and economic infrastructure equity and debt, typically offer a markedly different risk-return profile and pattern of returns to that of public equity and credit markets, upon which many DC default funds overly rely.[42] Therefore, when combined with equity and credit, these heterogeneous assets, with their differing risk-return characteristics can, in turn, generate better long-run risk-adjusted returns and often more certain, or less volatile, investment outcomes.[43] Indeed, in stressed market environments, historic return correlations between liquid, publicly quoted assets break down and gravitate to a correlation co-efficient of one. By contrast, illiquid assets tend not to follow suit to the same degree, especially if restrictions are placed on disorderly exits.[44] That said, as the value of those illiquid assets with no secondary market is often difficult to pinpoint, the apparent lack of correlation between quoted liquid and unquoted illiquid asset returns can be somewhat illusory.

[37] World Population Review 2018. http://worldpopulationreview.com/countries/median-age/

[38] The FCA permitted links rules to which these funds, as linked long-term contracts of insurance, are subject, restricts the asset classes in which these funds may invest per COBS 21.3.1 R. See: Conduct of Business Sourcebook. Chapter 21. Permitted Links. FCA Handbook. March 2019.

[39] COBS 21.3.1R allows investment in permitted land and property.

[40] See: DC scheme investment in illiquid and alternative assets. Daniela Silcock. The Pensions Policy Institute. March 2019. p.25.

[41] Moreover, in Australia the benchmarking of risk-adjusted investment performance, via league tables, among all of the major Super Funds has engendered forward thinking on investment policy.

[42] WTW proprietary research. December 2018.

[43] See: Over the Long term, Diversification Still Wins. Cambridge Associates. June 2017. https://www.cambridgeassociates.com/research/long-term-diversification-still-wins/.
As Cambridge Associates illustrates, a highly diversified portfolio with 15% invested in highly illiquid private market investments, would have handsomely outperformed an indexed global equity and a US equity/US Treasuries portfolio over the 20 years to 30 June 2016. This was despite the indexed global equity portfolio having outperformed the highly diversified portfolio in 12 of the 20 years.

[44] Most illiquid investments specify an initial lock-up period, which is followed by designated redemption periods with each requiring a minimum period of notice before each redemption is made. Additionally, a restriction is typically placed on the size of each redemption. In stressed market conditions, gates, expressed either as a percentage of a fund's net assets or as a percentage of a client's invested assets, are usually imposed to slow redemptions. However, the capital value of a number of illiquid assets amortises to zero over a defined period of time – this amortising capital value adding to the income generated by the asset over this period.

Of course, like any investment decision, the decision to invest in one or a number of illiquid assets ultimately comes down to whether the investment itself is inherently a sound economic proposition with a sufficiently strong rationale to support its inclusion in a portfolio, whether it's likely to generate a return that is at least commensurate with the assessed risks (which, in turn, demands that the price paid doesn't exceed the asset's fair value) and offers the prospect of genuine diversification,[45] leading to improved risk-adjusted returns. The investment must also fit with the decision makers' investment beliefs and investment time horizon.

So, for example, the economic rationale for investing in social and economic infrastructure, compromising the provision and maintenance of schools, hospitals and prisons, social housing, roads, rail, power and communications networks, is underpinned by the inability of successive governments, whether in the UK or further afield, to meet the ongoing demand for and financing of such essential assets. As intimated above, the provision of private capital to plug this ever widening financing gap is typically rewarded with a relatively predictable long-run investment return, underpinned by a strong covenant, with little if any macroeconomic risk, though often with an element of political and regulatory risk, coupled with an implicit or explicit link to inflation.[46] As such, the expected return from such assets is often quoted as a margin over inflation-linked government bonds and can, in some cases, compete with the long-term return from equities, without the associated short-term returns volatility and drawdown risks. Moreover, with governments' ongoing social and economic infrastructure investment needs, not least those stemming from the seemingly insatiable demand for renewable energy, the need for private capital isn't fixed, thereby lessening the risk of overpaying for such assets.

Additionally, and while seemingly tangential to the investment decision, DC decision makers shouldn't underestimate the extent to which scheme members' engagement is heightened when they become aware that their money is funding tangible projects, such as housing or transforming the country's infrastructure, with a measurable positive impact on communities.[47]

[45] Genuine diversification stems from pairs of assets having a correlation coefficient of less than one, ideally negative.
[46] Evergreen, or open ended, unlisted infrastructure equity funds, in particular, potentially provide a continuous stream of inflation-linked income. This can provide a sustainable source of real income to finance spending needs in retirement.
[47] Navigating ESG: a practical guide. DCIF. 2018. pp.22-23.

WHAT IS THE ILLIQUIDITY PREMIUM AND COMPLEXITY PREMIUM AND HOW ARE THEY EARNED?

"During periods of market dislocation, illiquidity premia are well and truly earned by those asset owners prepared to sit on their hands and ride out the storm and by those prepared to supply liquidity to the market when most others watch from the sidelines."

The illiquidity premium is a reward for locking up money. The longer the period money is locked up, particularly in those assets for which there isn't a ready secondary market, typically the greater the illiquidity premium that can be earned.

Over the past 20 years, global investment consultant WTW estimates that the illiquidity premium has averaged a little over one per cent per annum but this number masks the often significant differences in the premium available on a multitude of illiquid asset classes, specific assets and the often dramatic periodic fluctuations in the value the market places on liquidity. For instance, immediately prior to the 2008/09 Global Financial Crisis, when market liquidity was plentiful and undervalued, illiquid assets typically didn't demand an illiquidity premium. However, in the immediate aftermath of the crisis, when market liquidity had all but dried up and there were forced sellers of illiquid assets for which there was no ready secondary market, illiquidity premia in excess of three per cent were commonplace.[48] Indeed, during periods of market dislocation, illiquidity premia are well and truly earned by those asset owners prepared to sit on their hands and ride out the storm and by those prepared to supply liquidity to the market when most others watch from the sidelines.

However, as suggested above, determining the prospective illiquidity premium is not an exact science, in the same way that calculating those other risk premia which prospectively contribute to an asset's return are typically estimates, albeit calculated using well established financial economics methodologies. Then there's the subjectivity around splitting the credit premium for default risk from the illiquidity premium and not confusing the returns from employing leverage, with illiquidity.

In addition, there's often a complexity premium to be earned – the prospective reward for expending considerable governance on the due diligence and monitoring of more complex illiquid assets. However, its calculation is even more subjective. Moreover, one would expect this premium to decline over time as asset owners become ever more comfortable evaluating and investing in complex illiquid assets.

[48] Proprietary WTW research. December 2018. Also see: Measuring liquidity risk: A cross-asset perspective. Maya Bhandari. Columbia Threadneedle Investments. July 2015.

IMPEDIMENTS TO INVESTING IN ILLIQUID ASSETS

"It is a popular misconception that there is a legal obligation on DC pension schemes to invest only in daily priced assets and that insurance platforms are mandated to only offer daily priced funds."

So what are the key impediments to DC schemes investing in illiquid assets? There appear to be five:[49]

- DC investment governance typically not being sufficiently well advanced to adequately deal with the requisite due diligence and monitoring;
- the inability for most insurance platforms to offer and administer illiquids;
- the increased costs associated with investing in illiquid assets;
- the challenges of accommodating the generally higher fees and often performance fees within the confines of the 0.75 per cent charge cap,[50] and
- the high minimum investment sizes applied by most managers of illiquid assets.

INSURANCE PLATFORMS

Acknowledging the inadequacy of DC investment governance, most DC schemes, as noted earlier, currently invest via insurance platforms, set up primarily to accommodate daily priced funds which can be bought or sold daily. The advantages to DC schemes of investing via these platforms are that they reduce asset manager costs, facilitate trading between funds, provide schemes with data on funds and charges to comply with regulation and arrange custody for member assets. However, these platforms typically don't offer access to illiquid assets, not because daily pricing on pension investments is a regulatory requirement – it isn't – but because it is administratively easier for platforms to audit, value and monitor trades which are reconciled every day.[51]

Indeed, it is a popular misconception that there is a legal obligation on DC pension schemes to invest only in daily priced assets and that insurance platforms are mandated to only offer daily priced funds. Consequently, the FCA is currently consulting on revising the permitted links rules in order to remove actual and perceived barriers to investing in illiquid and alternative assets.[52] Of course, this should include regulatory guidance on how to value illiquids on an ongoing basis, not least to ensure members pay a fair price on the way into a fund and are paid a fair price on the way out. Indeed, without clear regulatory guidelines that prescribe how a scheme member's units should be valued, if they are not priced daily, platforms face the potential risk of inappropriately valuing a member's pensions pot. One suggestion is that this could be based on the convention employed by DB schemes of agreeing a suitable mark-to-model methodology with the scheme's auditors.

[49] Please see DWP (February 2019). op. cit.
[50] The charge cap of 0.75% per annum on the value of funds under management, has, since April 2015, been applied to DC default funds used for auto enrolment.
[51] Most insurance platforms require each of their fund providers to have a price feed notified on a daily basis for administrative efficiency. There is no real reason why dealing in certain funds can't be extended to non-daily, so long as there is the collective will to engineer such change.
[52] See: CP18/40: Consultation on proposed amendment of COBS 21.3 permitted links rules. FCA. December 2018.

Of course, an increase in demand for illiquid assets from DC schemes, flowing from advances in investment governance, should, ideally, result in platforms making the necessary investment to cater for those assets which are valued less frequently than daily dealt assets. That said, the likelihood is that prospective changes to the FCA's permitted links rules will culminate in illiquid assets being accessed in a less governance intensive manner via predominantly passively managed pooled funds, either by investing in listed illiquid assets or tracking an illiquid asset index. Aside from diluting the potential diversification benefits of accessing illiquid assets either directly or via an actively managed fund, these funds, by offering considerably more liquidity than the latter two approaches, will also fail to capture the illiquidity premium in full. However, that's not to say these funds negate these benefits completely. They don't. Moreover, as larger DC schemes proliferate and reach critical mass, not least as a result of the larger master trusts taking an ever increasing slice of the UK DC market and through natural attrition,[53] many will likely operate outside of platforms and hold illiquid assets either directly, or via a segregated mandate, thereby accessing the illiquidity premium in full.

THE COST OF INVESTING IN ILLIQUID ASSETS

"Incorporating the increased charges and performance fees associated with illiquid assets within the charge cap, certainly for larger DC schemes, is unlikely to be an insurmountable barrier to investment, especially considering that the percentage allocation is likely to be south of 15 per cent."

Then there's the increased cost of investing in illiquid assets, arising from their usually higher buying and selling costs, ongoing legal and development costs and quite often performance fees, against the backdrop of the 0.75 per cent charge cap.[54] While the evidence suggests that larger DC schemes can accommodate the increase in costs commensurate with investing a proportion of DC default funds into illiquid assets, smaller schemes typically cannot.[55] When combined with generally high minimum investment sizes, a typically diminished level of investment governance and specialist investment knowledge to evaluate such complex assets, this further justifies calls for DC consolidation – a point that's considered again shortly. However, that's not to say smaller funds can't access some of the benefits associated with scale by co-investing in those pooled funds which, as noted earlier, don't capture the illiquidity premium in full.

A further consideration is that even just a five per cent allocation to illiquids could add 0.1 per cent to the overall cost base of a scheme, more if performance fees are levied. For some schemes that might represent a 20 to 30 per cent hike in charges, from a relatively low base,[56] and may be difficult to justify within a fees budget that's typically much lower than that for DB and to the scheme's members. Not that a cost minimisation mindset should be applied to such investment decisions – a point we consider shortly.

[53] For instance, smaller master trusts are choosing to close rather than face a more stringent authorisation process while larger master trusts continue to absorb smaller single employer DC schemes. Smaller DC schemes are also being encouraged to consolidate via measures that simplify DC bulk asset transfers, as per The Occupational Pension Schemes (Preservation of Benefit and Charges and Governance) (Amendment) Regulations 2018.
[54] Although transaction, or trading, costs and stamp duty are exempt from the 0.75% charge cap, they are still incurred by members.
[55] The DWP Pension Charges Survey 2016 found that while the average fee paid for investment by larger DC schemes, with 1,000+ members, was between 0.37% (trust-based) and 0.45% (contract-based) of funds under management, investment fees paid by smaller schemes with five or fewer members averaged 0.72%. See: Pension Charges Survey 2016: Charges in defined contribution pension schemes. DWP. October 2017. p.46.
[56] Some illiquid assets may attract a base fee of 2%. A 5% allocation would therefore add 0.1% to a scheme's overall fees. Adding 0.1% to the average trust-based fee for investment by larger DC schemes of 0.37%, represents a 27% increase in fees.

PERFORMANCE FEES

"The key to aligning the interests of both parties is to design a charging structure that isn't ridiculously over-complicated but which provides the asset manager with the right incentives to generate the desired long-run risk-adjusted returns, net of these costs, within a defined risk budget to curtail excessive risk taking."

Asset managers adopt two approaches to charging fees. The first is an ad valorem fee, where a fixed percentage fee is applied to funds under management, whether managed actively or passively. The second is a performance related fee linked to the performance of an actively managed fund relative to an agreed benchmark. Depending on the asset manager, asset class and investment strategy applied, an ad valorem fee may be charged, for others an ad valorem fee plus a performance fee may be levied or in exceptional cases just a performance fee is charged. This performance fee is typically asymmetric, in that it only varies with the degree of outperformance of the agreed benchmark though some performance fees are symmetric, reducing with underperformance.

While performance fees aim to align the financial interests of the asset manager with that of the DC scheme members, there is debate around the merits of performance fees: whether the alignment of interests works to deliver higher returns net of costs; whether they inappropriately incentivise riskier investment positions to be taken; and to what extent they can be fairly applied to DC scheme members.[57]

Performance fees are heterogeneous and may be constructed to include one or a number of the following features in their design:[58]

- *a cap* – a maximum performance fee;
- *a hurdle* – a fixed minimum percentage return before the performance fee applies;
- *a high water mark* – where performance fees are not earned until the best prior performance which has already earned a fee is reached;
- *a fulcrum fee* – where the overall fee increases with outperformance and decreases with underperformance;
- *clawback* – where a refund of some performance fees becomes due if accumulated performance is below the benchmark over a pre-specified period of time, and
- *reserving or carryover* – where performance fees are only paid to the investment manager if the performance is maintained over a pre-determined time period. This encourages long-term, responsible investment practices and discourages excessive risk taking to increase fees in the short term.

The latter three features typically characterise a symmetric fee.

On alignment of interests generally, Cass Business School produced a report examining the attractions of different fee structures to investors and fund managers. Perhaps unsurprisingly, the researchers found that the interests of investors and asset managers are more closely aligned with symmetric performance fees than with either an ad valorem fee or an asymmetric performance fee.[59] Of course, the key to aligning the interests of both parties is to design a charging structure that isn't ridiculously over-complicated and provides the asset manager with the right incentives to generate the desired long-run risk-adjusted returns, net of these costs, within a defined risk budget to curtail excessive risk taking.

[57] For instance, as the charge cap currently prohibits performance fees being charged on a daily basis, this prevents such fees being applied fairly between incoming and outgoing members of a DC scheme.
[58] This section is modelled on DWP (February 2019). op.cit. pp.31-32.
[59] Clare, A., Motson, N., Payne, R. and Thomas, S. (2014). *Heads We Win, Tails You Lose. Why Don't More Fund Managers Offer Symmetric Performance Fees?* London: Cass Business School, City University, London.
Also see: Servaes, Henri and Sigurdsson, Kari. The Costs and Benefits of Performance Fees in Mutual Funds (December 6, 2018). European Corporate Governance Institute (ECGI) - Finance Working Paper No. 588/2018.

In its recent consultation on how DC schemes might access illiquid assets, the Department of Work and Pensions (DWP) suggested changes to the way DC schemes looking to invest in illiquids might assess compliance with the charge cap, noting that, although variable charges can be difficult to manage on a fixed investment budget, the charge cap shouldn't be raised or that performance fees shouldn't be excluded from the cap.[60] In short, incorporating the increased charges and performance fees associated with illiquid assets within the charge cap, certainly for larger DC schemes, master trusts in particular, is unlikely to be an insurmountable barrier to investment, especially considering that the percentage allocation is likely to be south of 15 per cent. However, if the risk of breaching the charge cap is to be completely eliminated, then those managers applying performance fees should voluntarily impose their own cap.

HIGH MINIMUM INVESTMENT SIZES

The final impediment to investing in illiquids, especially directly and sometimes even via pooled funds is, as noted earlier, the typically high minimum investment size applied to such investment. Indeed, given the size distribution of DC schemes in the UK,[61] the allocation to illiquids implied by this minimum would overwhelm the asset allocation of the vast majority of schemes.

OVERCOMING THE IMPEDIMENTS TO INVESTING IN ILLIQUID ASSETS

However, all may soon be about to change. With the FCA consulting on the regulatory barriers to DC investment in illiquid assets[62] and the DWP consulting on how trust-based DC schemes might access "patient capital",[63] as illiquid assets are often termed, this particular drive to improve DC outcomes is gathering a head of steam.

The DWP's proposed approach to encourage DC trust-based schemes to invest in illiquid assets, in addition, as noted above, to offering a methodology to comply with the charge cap, is to require:

- such schemes to document the extent to which they've considered those asset classes which might deliver "sustainable and competitive" long-term returns;
- larger trust-based DC schemes[64] to state their policy in relation to illiquid assets in the Statement of Investment Principles (SIP), and potentially in a DC default SIP, while reporting annually via the Implementation Statement on how they had followed their policy on illiquid assets, with the possible inclusion of the approximate percentage holdings in illiquid assets within the default fund and a breakdown of these assets;[65]
- smaller trust-based DC schemes to regularly review, via the *value for members* assessment in the annual DC Chair's Statement, whether their members would benefit from being transferred to another scheme.

Given their likelihood of achieving the desired outcome, these proposals shouldn't be restricted to trust-based DC schemes but universally applied.

[60] For further details of the so-called retrospective method of accounting for variable charges and the alternative prospective method, see: Investment innovation and future consolidation. A Consultation on the Consideration of Illiquid Assets and the Development of Scale in Occupational Defined Contribution schemes. DWP. February 2019. pp.28-31.
[61] As noted earlier, the top 200 DC schemes in the UK account for 93% of total DC assets.
[62] Consultation on proposed amendment of COBS 21.3 permitted links rules. CP18/40. FCA. December 2018.
[63] DWP (February 2019). op.cit.
[64] The DWP seeks to define larger schemes in relation to the number of members and size of scheme assets.
[65] The Implementation Statement and the Statement of Investment Principles are required to be published online in a phased approach beginning in October 2019.

EVALUATING BOTH SIDES OF THE COIN: ADOPTING A VALUE FOR MONEY MINDSET

"The opportunity costs of solely focusing on charges rather than adopting a more holistic net value added mindset can be considerable."

The charge cap of 0.75 per cent per annum on the value of funds under management, limits what can be spent on investment,[66] net of any administration and communications charges borne directly by DC members, as opposed to the scheme sponsor.

Although well intentioned, with the aim of ensuring that members receive value of money, the charge cap has instead seen a race to the bottom with very little spent on investment. Sadly, the result has been to stifle innovation and creative thinking to the detriment of long-run risk-adjusted returns and ultimately member outcomes. That may seem like a bold statement to make but it can be substantiated, given that the charge cap has created a rather narrow focus on cost containment, which, in turn, has created a cost minimisation mindset among DC decision makers.

Accepting that investment returns are never guaranteed whereas costs are the one factor that can be controlled, the opportunity costs of solely focusing on charges rather than adopting a more holistic net value added mindset can be considerable. Indeed, prioritising the former over the latter, by not considering the potential value add and risk mitigating nature of more governance-intensive investment opportunities, has compromised the economics of portfolio construction and long-run risk-adjusted returns. For instance, choosing to manage the, typically sizeable, equity exposure of a DC default fund passively rather than by adopting *truly* active management can compromise both long-run returns and diversification.[67] The same can be said of giving a wide berth to real, illiquid and alternative asset classes purely on cost grounds.

[66] The charge cap excludes investment trading, or transactions, costs, stamp duty and the costs of maintaining real assets such as infrastructure and real estate.
[67] See: Wagstaff (2017). op.cit.

DC SCHEME CONSOLIDATION

"Regulatory action is needed to accelerate the move to increased scale and the benefits of investing in a much broader range of assets that typically flows from improved investment governance."

It is often said that small is beautiful. However, when it comes to DC schemes, as noted earlier, that isn't necessarily the case. Increases in scheme size can dramatically improve investment governance and reduce administration charges, so increasing the headroom for investment spend and therefore the ability to access a more diverse range of investment opportunities.[68]

Although, as already mentioned, larger DC schemes are likely to proliferate and reach critical mass, principally as a result of the larger master trusts taking an ever increasing slice of the UK DC market and through natural attrition, the DWP quite rightly notes that a long tail of smaller schemes is likely to remain without further regulatory intervention.[69] Indeed, with over 30K micro schemes in the UK, the vast majority with sub-par investment governance and an inability to meet the minimum investment sizes of most illiquid assets, regulatory action is needed to accelerate the move to increased scale and the benefits of investing in a much broader range of assets that typically flows from improved investment governance.

ACCELERATING DC CONSOLIDATION

With this in mind and not wishing to be heavy handed, the DWP, as intimated earlier, has suggested extending the *value for members* assessment in the annual DC Chair's Statement as a means by which to nudge smaller trust-based DC schemes to regularly consider consolidation. Requiring trustees to consider factors such as whether they collectively have sustained gaps in essential areas of knowledge, whether the cost of investing and administration aligns with larger peers and whether their investment strategy is delivering the desired level of risk-adjusted returns, would act as a determinant of whether or not scheme members' interests would be best served by transferring them to another DC scheme, or tPR-authorised master trust. Not that, as noted earlier, this requirement should be restricted to trust-based schemes.

[68] See: DWP (2017). op.cit. p.46.
[69] DWP (February 2019). op.cit.

INTEGRATING ENVIRONMENTAL, SOCIAL AND GOVERNANCE FACTORS TO INVESTMENT DECISION MAKING

"The challenge is demonstrating that a failure to incorporate ESG considerations into investment strategies could be materially detrimental to DC member outcomes. After all, the view that financial markets, as a result of market inefficiency and market failure, do not reward sustainable behaviour has long been held."

A recent Defined Contribution Investment Forum (DCIF) report revealed that most people, especially younger generations, care about the impact their money has on society and the environment.[70] Most also believe businesses have a wider remit than generating profit, and should consider the social and environmental impact of their activities. Consequently, making DC members aware of their scheme's Environmental, Social and Governance (ESG) initiatives can give people a real sense of ownership of their pension pot, so improving their engagement with retirement outcomes. Indeed, the report found that many people would want to contribute more to their pension pots if they knew their pension money was being used for responsible investment.[71]

However, ESG means different things to different people,[72] not least because E, S and G are rarely spelt out as Environmental, Social and Governance, and because the term comprises myriad factors from resource depletion and climate change to diversity and employee relations to employee compensation and executive pay, with no universally accepted overarching definition of ESG or of what each category comprises. Also, the terms responsible investment, sustainable investment and ESG are used interchangeably, despite the subtle nuances that differentiate each.[73] Moreover, there is no one-size-fits-all approach to integrating ESG factors into an investment process with techniques ranging from negative screening, or exclusion, to more sophisticated engagement and social impact approaches.[74]

However, policymakers, financial regulators, NGOs and professional bodies certainly have the management of financially material ESG factors firmly in their sights, given the recent plethora of recommendations, directives and guidance issued to strengthen ESG integration by both DB and DC schemes.[75] Indeed, from 1 October 2019 all DC trust-based schemes, including master trusts, though not contract-based schemes,[76] will have to set out, in their Statement of Investment Principles and publish on a publically available website, how they take account of financially material risks.[77] Crucially, this includes material ESG factors with explicit reference to managing what is prospectively the most material and systemic of ESG risks – climate change risk. And for good reason – a company behaving in an unsustainable, or non-ESG compliant, way may well maximise short-term profits but, in so doing, could severely compromise its ability to successfully compete in the future, not least by exposing itself to a whole host of highly damaging risks. By contrast, better governed companies should deliver more sustainable returns by not being so materially exposed to operational, regulatory and reputational risk. Ultimately then, ESG analytics are simply an integral component of a DC scheme's risk management toolbox.

[70] DCIF (2018). op.cit.
[71] DCIF (2018). op. cit. p.25.
[72] The UN Principles of Responsible Investment (UN PRI) defines responsible investment as, "an approach to investing that aims to incorporate environmental, social and governance factors into investment decisions, to better manage risk and generate sustainable, long-term returns."
[73] For instance, sustainability is broader in concept than ESG, in that the latter acts as a one of a number of inputs to determine whether or not a business is economically sustainable and likely to flourish in the long term.
[74] The Global Impact Investors Network (GIIN) defines impact investing as: "investments made with the intention to generate positive measurable, social and environmental impact, alongside a financial return." The guiding focus of impact investing is the UN's 17 Sustainable Development Goals (SDGs), which outline what needs to be achieved to solve the world's key challenges. See: Impact investing: Just a trend or the best strategy to help save our world? Forbes. 31 December 2018.
[75] These bodies include the Law Commission, DWP, FRC, Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD), UN Principles for Responsible Investment (UNPRI), ShareAction, The Pensions Regulator, the UK Sustainable Investment and Finance Association and Fair Pensions.
[76] Insurance company-run contract-based DC schemes, or GPPs, are regulated by the FCA, whereas trust-based DC schemes are regulated by tPR. The investment policy of each GPP is monitored by an Independent Governance Committee (IGC). The FCA currently plan to bring forward rules for consultation on extending IGC duties to stating the policies of the GPP in relation to long-term financially material risks and their policy on stewardship.
[77] Currently, trust-based DC schemes are required by tPR's Code of Practice 13 to take ESG factors into account if the scheme's trustees believe these to be financially significant. Additionally, trustees are obliged to take non-financial ESG or ethical factors into account, if asked to do so by the scheme's members, so long as there is no risk of significant financial detriment to the fund.

MANAGING CLIMATE CHANGE RISK

Looking at this from a purely financial perspective, as many DC decision makers are either required or inclined to do, there's a balance to be struck between earning returns today and in the future. Nowhere is this truer than in managing climate change risk. Indeed, in its latest report, global investment consultant Mercer models the potential financial impacts of climate change under different scenarios and finds that sudden sizeable return impacts are likely to dominate those portfolios that fail to build in sustainability themes.[78] Not that this should come as any great surprise, given that the Bank of England has recently highlighted climate change as posing significant risks to both the global economy and global financial stability.[79] However, although some industries are potentially exposed to quite sizeable losses under climate change as we transition to a low carbon economy, there are many notable investment opportunities resulting from this transitioning, with Mercer citing the potential to capture a "low-carbon transition (LCT) premium", estimated to be worth nearly 0.2 per cent annum.

EXCLUSION OR ENGAGEMENT?

Another recent report, this time by Imperial College Business School, suggests that, against the increasingly likely backdrop of major governments acting within the next decade to reduce man-made greenhouse gas emissions,[80] investors can, by *tilting* away from fossil fuel stocks towards higher weightings of companies active in energy efficiency, construct portfolios that substantially reduce their exposure to energy transition risks without sacrificing prospective financial returns or diversification.[81] Crucially, totally excluding higher carbon emitters from portfolios is not advocated. Exclusion, after all, precludes engagement, which is instrumental in effecting positive change and ultimately moving the dial on climate change.[82] For instance, engaging with those leading vehicle manufacturers that produce cars with internal combustion engines may well result in these automotive giants becoming the driving force behind electric vehicle production. Additionally, while engagement is accelerating the move by energy companies towards more sustainable means of energy generation, fossils fuels may well remain a major energy source, and therefore a contemporary source of investment returns and dividend income, for at least the next decade. Finally, engagement typically improves the corporate ESG scores, compiled by an increasing number of investment consultants, asset managers and index providers, which help differentiate the most ESG-compliant businesses and those most improved from their lower scoring and backtracking peers.[83]

DOES SUSTAINABILITY COMMAND A VALUATION PREMIUM?

However, for many investors, there is still the misplaced perception that responsible investment means compromising on financial return and diversification. This isn't helped by its ethical investing origins, and its association with narrowing the investment universe and lower investment returns, or by the somewhat inconclusive evidence on the value generated by integrating ESG factors into investment decision making. This, in turn, as intimated earlier, is a consequence of there not being a universally accepted definition of what E, S and G comprises, the limited timeframe over which data is available and qualitative evidence not always being quantifiable. Additionally, one needs to objectively disentangle and isolate the effects of ESG factors on performance from a multiplicity of other financial and non-financial risk factors.

[78] Investing in a Time of Climate Change – The Sequel 2019. Mercer. April 2019. Available at https://www.mercer.com/our-thinking/wealth/responsible-investment.html.
[79] Avoiding the storm: Climate change and the financial system. Sarah Breeden. Bank of England. Official Monetary & Financial Institutions Forum, London. 15 April 2019. www.bankofengland.co.uk/publications/Pages/speeches/default.aspx
[80] Governments are likely to intervene in fossil fuel markets via a combination of taxation, regulation and cap-and-trade mechanisms.
[81] Climate change investment risks: Exploring the implications for optimal portfolio construction. Imperial College Business School Centre for Climate Finance & Investment. March 2019.
[82] See: Dimson, Karakas and Li. Active ownership. Review of Financial Studies (2015). This paper concludes, "An average excess return of 2.3% was generated over one year after engagements with investee companies."
[83] See: https://www.columbiathreadneedle.co.uk/en/investment-themes/columbia-threadneedle-proprietary-responsible-investment-ratings/

The challenge, of course, is demonstrating that a failure to incorporate ESG considerations into investment strategies could be materially detrimental to DC member outcomes. After all, the view that financial markets, as a result of market inefficiency and market failure, do not reward sustainable behaviour, has long been held.[84] However, a degree of comfort can be derived from those meta studies that provide evidence of firms with best-in-class ESG credentials exhibiting strong financial performance, given their lower cost of capital and better operational performance.[85]

One recent study that demonstrates the value of integrating ESG factors into investment decision making is that published by George Serafeim, professor of business administration at Harvard Business School.[86] Serafeim found that the valuation premium paid for companies with strong sustainability performance has increased over time. In other words, the market rewards such companies with a higher valuation multiple relative to peers, after adjusting for factors such as profitability, size, leverage, past returns and other firm characteristics. Moreover, this higher multiple is even greater in the presence of positive public sentiment about a company's sustainability performance. Given this, investors need to make a judgement call on the value of corporate sustainability and the price being paid for it. However, when a firm's sustainability performance is largely discounted as a result of ambivalent public sentiment, this valuation premium disappears, effectively giving investors a free lunch. Indeed, Serafeim finds that when this is the case, significant positive alpha of four to five per cent per annum results.[87]

EXEMPLAR DC SCHEMES

While many DC default funds benefit from the responsible investment activities of their underlying asset managers, accepting that the responsible investment capabilities of asset managers differ considerably, only a handful of DC schemes have set out to build a DC default or self-select fund range that centres on responsible investment. Three of the more prominent examples, the HSBC DC scheme, the Atlas Master Trust and the National Employment Savings Trust (NEST), have each employed a responsible investment policy with the principal aim of generating better long-run risk-adjusted returns.

In 2016, the HSBC DC trustees, together with their chosen asset manager, based the equity portion of the HSBC DC default fund on a sustainable, factor-based, investment index, within which engagement and climate change mitigation is central. More recently, the Atlas Master Trust has, within a proprietary sustainability framework, applied a combination of exclusions and reduced carbon intensity to the equity portion of its DC default. Likewise, NEST, a long-standing advocate of applying an ESG filter in its manager selection process in its quest to generate better long-run risk-adjusted returns, tilts its funds towards those companies that are better prepared for a low carbon economy while limiting investment to those that are less environmentally-friendly. These typically comprise those that have reserves of coal, oil and gas, or which produce energy from coal and those falling short of carbon emission targets.

Of course, most DC schemes aren't big enough to build their own solutions, which again points towards more consolidation. However, anecdotal evidence suggests that those schemes who do want to implement an ESG strategy are gravitating towards those ESG-focused funds that are increasingly being made available on insurance platforms.

[84] An excessively short-term view adopted by many institutional investors, inadequate company disclosures and a lack of education among market participants on the costs and benefits of corporate sustainability has, in the past, meant that the costs of unsustainable development have not been incorporated within company valuations. This market inefficiency has lead to market failure, in that capital has been allocated inefficiently. See: Clare and Wagstaff (2011). op.cit. pp.443-446.

[85] See: Friede G, Busch T & Bassen A (2015): ESG and financial performance: Aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment. Also see: Should trustees integrate ESG into their investment decisions? Iain Richards and Chris Wagstaff. Professional Pensions. 4 December 2014.

[86] George Serafeim. Public Sentiment and the Price of Corporate Sustainability. Harvard Business School. Working paper 19-044. November 2018. This paper analyses data for the years 2009-2018 provided by MSCI for ESG performance ratings and TruValue Labs for measuring public sentiment about a company's sustainability performance.

[87] Also see: Clark, Feiner and Viehs. From the stockholder to the stakeholder: How sustainability can drive financial outperformance (2015). This paper cites the "80% of studies [which] show that the stock price performance of companies is positively influenced by good sustainability practices."

NUDGING THE LONG-TERM SAVINGS RATE

"Behavioural interventions can dramatically increase savings rates, albeit not to the giddy heights advocated by many in the pensions industry."

Of course, in an ideal world, much improved DC outcomes wouldn't necessarily be solely contingent on the better long-run risk-adjusted returns that flow from employing an advanced level of investment governance. Increased rates of long-term savings would also contribute to this laudable goal. After all, the UK has, for some time, had the lowest levels of household saving on record.[88] By comparison, German households consistently save over three times as much as the average Brit and even, supposedly spendthrift, American households save over 50 per cent more.

Indeed, according to *The DC Future Book*,[89] a median earner in the UK should be contributing between 11 and 13 per cent of qualifying earnings[90] between age 22 and State Pension Age to achieve a two-thirds chance of replicating working life living standards in retirement. After all, the UK isn't endowed with a Scandinavian-style state pension system. Starting contributions later in life or taking a career break can catapult the contribution rate to a gargantuan 27 per cent. However, against the backdrop of the latest auto enrolment contribution minima standing at just eight per cent of qualifying earnings – three per cent employer, five per cent employee – how realistic is it to expect the median UK earner to more than double their contribution rate? The answer in short is not very.[91]

While employer matching contributions have been shown to strongly influence employee contribution rates, the solution to almost doubling current long-term savings rates, without dramatically increasing employee opt out rates, ultimately comes down to overcoming behavioural impediments to saving, notably the *present bias* and *anchoring* inherent in members setting their contribution rates, with simple behavioural interventions.[92]

In addition to auto escalation – committing today to pay increased contributions only in the event of future pay rises – using avatars to help individuals visualise and relate to their future self has been shown to overcome the preference for spending today over saving for tomorrow and double long-term contribution rates. Similarly, issuing a lottery ticket for every, say, £100 saved per month makes the benefit of saving, given a typically magnified probability of winning a large sum of money that month, that much more immediate. Then there's projecting the individual's pension income at current contribution levels on their monthly payslip as a means of comparing current with future income and reframing employer contributions as "free money" and tax relief as "a saver's bonus". Combined, these and other behavioural interventions can dramatically increase savings rates, albeit not to the giddy heights advocated by many in the pensions industry.[93]

[88] In Q418, the UK household savings rate was 4.5%. Source: ONS. 29 March 2019.
[89] The DC Future Book 2018. The Pensions Policy Institute in association with Columbia Threadneedle Investments. September 2018.
[90] Qualifying, or band, earnings for the 2019/20 tax year are gross earnings between £6,136 and £50,000.
[91] Additionally, it is widely acknowledged that the rise of in-work poverty, zero hours contracts and the gig economy act as an impediment to raising contribution levels.
[92] *Present bias* is a preference for consumption today over deferring consumption, by saving, until tomorrow. This inter temporal preference for consumption over saving is compounded by the tendency by many DC savers to mentally "anchor" pension contributions to the minimum contribution level applied by their workplace pension scheme in the mistaken belief that this will provide an adequate sum in retirement.
[93] Other behavioural interventions include adopting the EAST framework of making things easy, attractive, social and timely, using better targeted communications and just-in-time training. See: Mind the gap: Overcoming the cognitive barriers to saving for retirement. Chris Wagstaff. Columbia Threadneedle Investments. June 2016.

CONCLUSION

"Failing to move the DC investment governance and innovative investment dial sufficiently far forward, especially in the absence of a material increase in contributions, will risk a combination of enforced longer working lives and retirements that are increasingly endured and not enjoyed. Adding one per cent per annum to long-run risk-adjusted returns really is the difference between retirement bliss and retirement penury."

It is evident that if DC member outcomes are to improve markedly, without forcing punitive levels of DC saving on people, then DC decision makers need to move towards the best practice investment governance models of exemplar DB schemes. Only by doing so will they be able to cast their investment net wider and capture the long-run rewarded risk premia that flow from investing in illiquid real and alternative assets.

Much of this, governance advances in particular, can be achieved through DC consolidation and moving from a cost minimisation mindset to one that hones in on the net value added of those asset classes and investment strategies that would otherwise not register on DC decision makers' radars. Regulatory change and platform innovation also have their parts to play. That's not to say that improved investment governance and capturing a more diverse range of risk premia should do all of the heavy lifting. After all, there is scope to move the contributions dial – especially by using simple behavioural interventions to address the behavioural impediments to long-term saving – just not to the extent that many suggest.

Of course, as DB benefits disappear and the state pension is paid ever later in life, so people will become increasingly dependent on their DC pension pots to secure their desired standard of living in retirement. Therefore, failing to move the DC investment governance and innovative investment dial sufficiently far forward, especially in the absence of a material increase in contributions, will risk a combination of enforced longer working lives and retirements that are increasingly endured and not enjoyed. Adding one per cent per annum to long-run risk-adjusted returns really is the difference between retirement bliss and retirement penury.

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