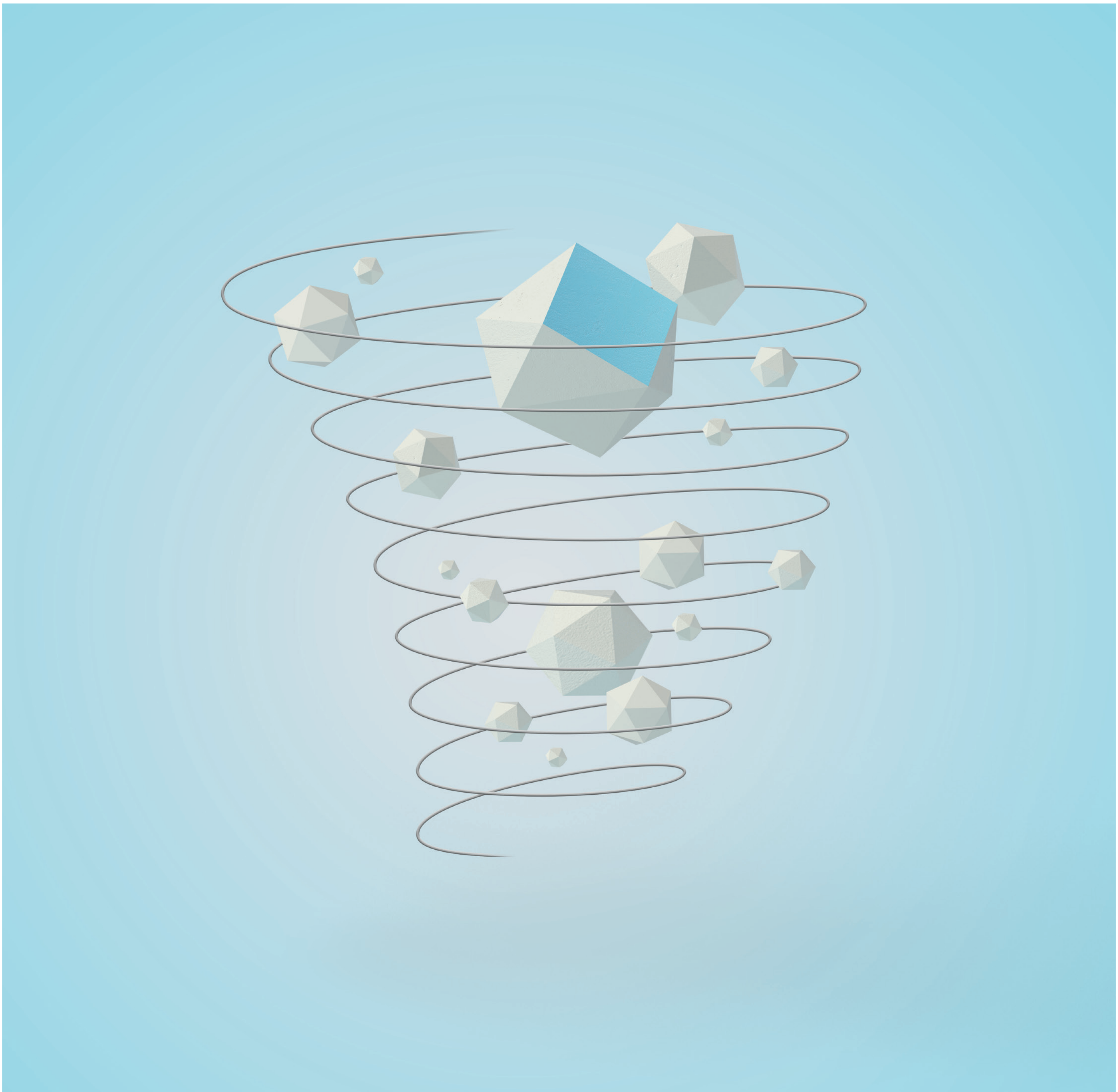

DB plans in their End Game in the post-pandemic era

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Foreword

Defined benefit pension plans find themselves caught between a rock and a hard place.

On the one hand, the ultra-loose monetary policies of central banks have borrowed against future returns by overinflating asset values, thereby ushering in an environment of low returns. As hope of a new economic miracle fades and inflation makes a comeback for the first time in decades, the spectre of 1970s-style stagflation becomes real. The reaction function of central banks appears uncertain and inflation expectations may become unanchored.

On the other hand, pension liabilities are maturing exponentially, raising the need for rising cash flow, while ageing demographics are now pushing the first – and the largest – cohort of post-war Baby Boomers into retirement. This is happening while the majority of plans are nursing funding deficits.

Worst of all, covenant risk is on the rise once again, as many plan sponsors were forced to declare profit warnings in 2020 with the onset of Covid-19, impairing their own economic viability.

Indeed, the covenant has been weakening in all key pension markets since the 2008 credit crisis, as zero-bound interest rates have ballooned pension liabilities and forced sponsors to make a series of lump sum cash injections into plans over and above regular contributions, so as to repair deficits.

That leaves pension plans with a delicate balancing act: de-risk the portfolio to protect capital as required by regulators, while re-risking it to repair deficits. For pension plans, it's the perfect storm.

This report shows how they are coping by adopting an eclectic asset allocation approach that blends caution with opportunity within a portfolio that is seeing innovation in the area of cash flow driven investing. This typically involves return-seeking assets, hedging assets and cross-over assets. There is also a clear tilt towards ESG investing. Managing assets is now a whole new ball game of extreme pragmatism.

Amundi Asset Management would like to thank Amin Rajan for undertaking this independent survey. Since 2014, our partnership with CREATE-Research has produced impartial in-depth research into issues of vital interest to pension plans around the world.

The resulting survey reports have not only stimulated debate at various thought leadership events but also served as a credible benchmarking tool for individual pension plans by providing actionable insights. We expect this report to follow suit.

I hope that you will find it informative.

Pascal Blanqué

Group Chief Investment Officer
Amundi Asset Management

Acknowledgements

"The future is no longer what it used to be."

Friedrich Hollander

In the 1990s, the finances of defined benefit pension plans seemed rosy. Pension holidays – sponsors confidently foregoing their contractual contributions – were common. Two decades on, the contrast could not be starker as ever more plan members reach retirement age in a hostile economic environment.

This survey is the latest in the annual Amundi–CREATE series, which started in 2014. It provides a detailed picture of how defined benefit plans are changing their asset allocation to meet fast-rising cash flow needs just as zero-bound interest rates play havoc with pension finances.

My foremost thanks go to 152 pension plans in 17 pension markets who participated in our survey, which turned the spotlight on this current challenging phase of their journey.

Over the years, their steadfast support has enabled us to provide a credible impartial research platform on how the global pension landscape has been changing since the 2008 global financial crisis.

My special thanks also go to Amundi Asset Management for supporting the publication of this report. Their arms-length support over the years has enhanced the credibility of all the reports in the series to date.

I would also like to offer grateful thanks to IPE for undertaking the survey for us as our media partner and to its editor, Liam Kennedy, for his inspirational guidance and support throughout the life of this series.

At CREATE-Research, I would like to thank Anna Godden for deskwork, Lisa Terrett for survey management, Naz Rajan for data analysis and Dr Elizabeth Goodhew for editorial support.

If, after all the help I have received, there are errors or omissions in this survey report, I am solely responsible.

Amin Rajan

Project Leader
CREATE-Research

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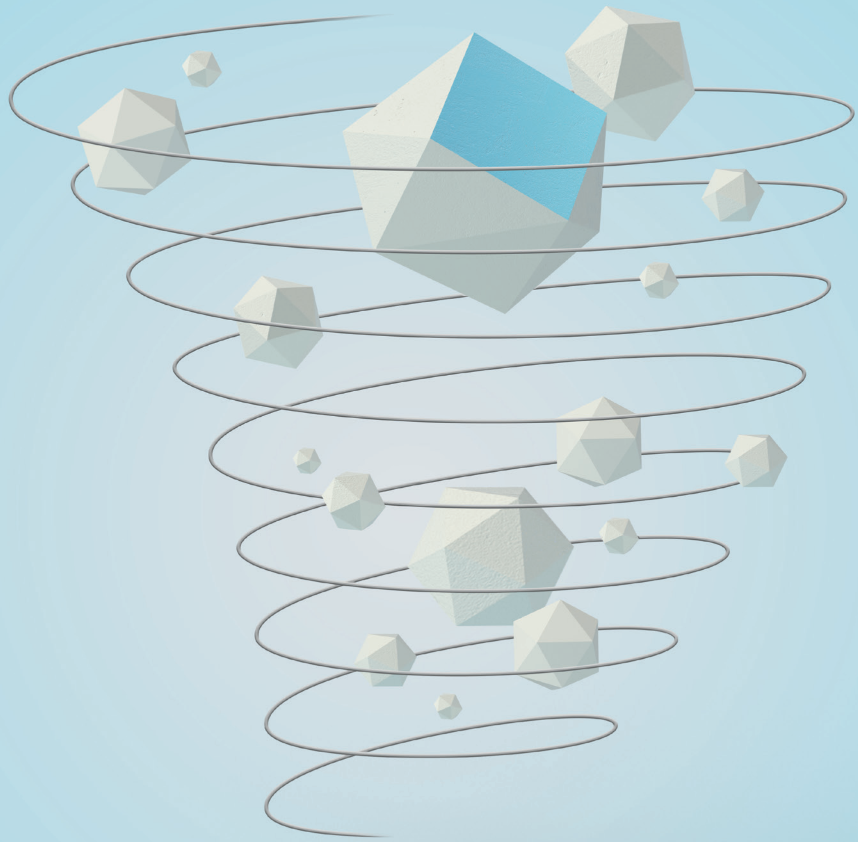


Introduction and aims

An inopportune toxic confluence of three unrelated forces has badly undermined the finances of employer-sponsored defined benefit pension plans, in which employers bear most of the risks involved in providing decent retirement pensions to their employees.

The first is ageing demographics: ever larger cohorts of post-war Baby Boomers have entered their golden years since the start of the last decade.

The second is regulation. Across all the key pension markets, pension plans have been enjoined to prepare for their End Game: showing how they intend to meet their fast-maturing pension obligations.

The third is interest rates. These have been falling under the central bank quantitative easing programmes that followed the Global Financial Crisis of 2008. They have reduced funding ratios by inflating the present value of plan liabilities and also hit the interest income used to fund regular pay-outs.

"Like shifting sand dunes, the foundations of the pension world have moved with changing interest rates."

An interview quote

The latest round of zero-bound rates – accompanying an unprecedented fiscal stimulus worth 25% of global GDP to fight the Covid-19 crisis in 2020 – has made a bad situation worse for most DB plans worldwide. They went into the crisis with their finances in far worse shape than they were in the 2008 crisis. Now they are caught in a Catch-22 situation: they can't afford to take risks with persistent deficits in a maturing plan; nor can they cut deficits without doing so.

Accordingly, our 2021 annual Amundi–CREATE pension survey aims to find out how DB plans are juggling with conflicting priorities at a time when asset values are trading at nosebleed levels that are far removed from reality.

As part of their response, pension plans have been raising allocations to environmental, social and governance investing in search of decent risk-adjusted returns since the 2015 Paris Agreement. Indeed, many have also adopted net zero goals. The UN's COP26 in 2021 may well mark another turning point.

Taking a three-year view, therefore, the survey pursued four lines of enquiry:

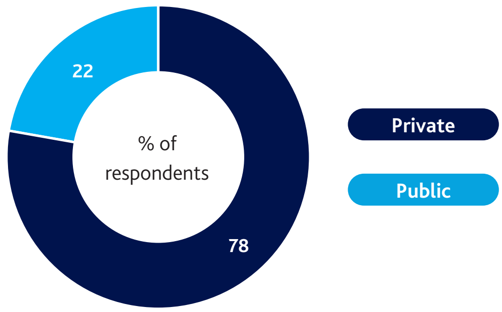
- Which macro shifts are likely in the post-pandemic global economy?
- How are the dynamics of the End Game being played out and what challenges are being addressed?
- Why has cash flow driven investing (CDI) dominated asset allocation?
- What outcomes have thus far been delivered by ESG investing and what are the expectations post-COP26?

The survey involved 152 pension plans with a collective AuM of €2.1 trillion in 17 pension markets. Their background features are given in Figure 1.0. Thirty of them were also involved in structured post-survey interviews, so as to add the necessary depth, colour and nuance to the survey results.

The rest of this section presents survey highlights, our four key findings and the nine themes that underpin them.

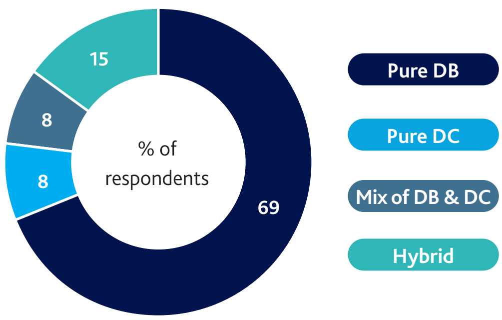
Figure 1.0

What sector does your pension plan cover?



Source: Amundi Asset Management / CREATE-Research Survey 2021

What is the nature of your plan?



Source: Amundi Asset Management / CREATE-Research Survey 2021

Survey highlights

(% of pension plan respondents)

Changes in the macro regime

58% There will be a shift from deflation to inflation as supply bottlenecks appear in economic recoveries

39% Central banks' independence will erode as they embrace governments' post-pandemic agenda

56% Interest rates will rise structurally as central banks lose credibility in influencing asset prices and controlling market volatility

71% Asset returns will be a lot lower, as the artificially inflated boom of the last decade unwinds

Changes as ageing demographics ushers in the End Game

48% The pandemic has undermined pension plans' viability in the longer term

41% Ageing demographics will reduce the overall risk appetite, while promoting selective re-risking

48% Plans are in negative cash flow territory

60% Sponsors are closing their DB plans and migrating to DC plans

Asset allocation

62% Funding levels are below 100%, requiring risk taking

63% Will rely on global equities to narrow funding gaps

48% Will rely on European IG credit to provide the necessary cash flow

59% Will rely on infrastructure to deliver yield and inflation protection

ESG investing

67% Target good risk-adjusted returns from their ESG investing

50% ESG funds performed better than the rest of the portfolio since the market crash in 2020

76% Allocations to ESG will grow over the next three years, as markets are forced to price in negative externalities

59% Allocations to the social pillar will grow over the next three years, as governments tackle inequalities

Four key findings

1. The pandemic is the catalyst that will trigger inflation

Covid-19 has binned the Thatcher–Reagan free market philosophy and necessitated a step increase in the role of governments in the post-pandemic recovery. There is a new social contract in the making, one in which the public and private sectors cooperate to create value for shareholders and society. It will target market failures, notably in the areas of economic inequalities and climate change.

As governmental agendas take priority, central banks' independence in rate setting and inflation targeting will no longer be sacrosanct.

A clash between massive policy stimulus and unquantifiable damage to the productive base of the global economy during worldwide lockdowns has already sparked an inflationary spiral that will be more than a temporary blip.

Inflation expectations may well become unanchored under the more permissive inflation target of the US Federal Reserve, presenting three choices regarding its ultra-loose monetary policy: a timely exit, a delayed exit or a chaotic exit.

"Sky-high faith in central banks comes with its own price tag."

An interview quote

Each option conflicts with two tacit policy goals of the Fed: first, keeping rates very low at both ends of the yield curve to fund governments' ballooning debt; second, relying on rising inflation to shrink the resulting global debt mountain. The scope for policy mis-steps is huge. Many among today's generation of central bankers have not had to deal with an inflation problem during their professional careers.

Indeed, 56% of our respondents expect rates to rise over the next three years either due to market forces or overt central bank action. Either way, they will affect investment returns, since rates are embedded in and contribute to every asset class's expected returns owing to their influence on economic growth and inflation expectations.

In this scenario, 71% expect investment returns to be a lot lower, as the last decade's artificially inflated asset price boom finally unwinds. Many among them also believe that today's asset prices are far removed from reality. They will likely reconnect with their fundamentals, as central banks' influence on asset prices begins to wane. Hence, 35% expect mean reversion in asset valuations to become the norm.

Themes 1 & 2 provide further details.

2. Ageing demographics have pushed DB plans into their End Game with added challenges from the pandemic

The Covid-19 crisis has hit pension finances. 48% report a 'negative' impact on the longer-term viability of plans, versus 6% who report a 'positive' impact. The impact on funding ratios and regular cash flows has been net-negative too. Hence, 60% expect to migrate members from defined benefit to defined contribution plans.

The more pension plans have worked to narrow their funding deficits, the more those targets have escaped them. The more rates have fallen, the faster their liabilities have tended to rise. Rising interest rates will not be enough to reverse this spiral. Pension plans will need far higher returns on their assets or fresh cash injections from their sponsors.

The crisis couldn't have come at a worse time for defined benefit pension plans, as ageing demographics have long been driving most of them into their End Game: where they are obliged by regulators to show how they intend to discharge their maturing pension obligations. 71% expect to use solutions that rely on their own balance sheet, while the rest aim to rely on off-balance sheet solutions mainly via pension buy-out and buy-in from insurance companies.

The latter have proved slow in materialising, as they require plans to be fully funded, which only 38% of them currently are. They also inflate liabilities by using a risk-free discount rate when valuing the assets that are being transferred to insurers.

For its part, the own-balance sheet approach has been pushing plans into bonds that have the same cash flow features as retirement pay-outs. But that has proven challenging, too.

First, such de-risking inflicted a double whammy during the pandemic: ballooning liabilities from falling rates and reduced incomes as rates plumbed fresh depths. This was combined with limited upsides from risky assets, as they scaled new heights after the market collapse in March 2020.

Second, there are real concerns that de-risking overvalued equities with overvalued bonds defies logic. Rising rates and inflation may well, over time, savage bond prices that are now at extreme valuations and force plans to re-risk just when valuations of risky assets are in Neverland.

Third, inflation and rising rates could hit hedging assets just when they are needed to de-risk the equities that target high returns. Bonds' role as portfolio ballast is no longer sacrosanct.

Themes 3, 4, 5 & 8 provide further details.

3. CDI will dominate asset allocation

On top of funding deficits, ever more DB plans are going into negative cash flow status. Only 33% are now in positive territory. Cash flow driven investing now dominates the End Game.

It involves de-risking alongside re-risking to achieve three seemingly conflicting goals: re-risking to plug deficits, de-risking to conserve capital, and cash flow management to fund regular pay-outs.

"The pandemic has blown the lid off the problems that have been metastasising in the pension world in an era of falling interest rates."

An interview quote

One reason behind this eclectic approach is that assets that tend to deliver strongly in one area don't deliver as well in others. Another reason is their changing priorities – from asset accumulation to balance sheet management – as plans enter the End Game. Thus, pension portfolios are now seeing the rise of CDI, typically involving three buckets: return-seeking assets, hedging assets and cross-over assets.

Equities dominate the first bucket, so as to provide extra returns for plugging deficits. Tactical asset allocation is now also used as another instrument for generating alpha while markets remain distorted and returns are time-varying.

Bonds dominate the second bucket. They target capital conservation. They provide hedges against a key unrewarded risk: namely, changes in interest rate. They also seek rising cash flows via a wide range of short-dated high-quality investment-grade corporate bonds that match distinct tranches of liabilities on a rolling time basis.

The final bucket has cross-over assets; so-called because they offer equity-like returns and bond-like features, with capital upside, inflation protection, regular cash flows and more predictable terminal values. They include high-quality equities, commodities and private market assets like real estate and infrastructure.

Thus, hedging assets and cross-over assets are becoming the main vehicles for CDI as plans advance towards their End Game. This is easier said than done.

This is because ageing demographics have raised the primacy of cash flows. And zero-bound rates have made them hard to secure. Only time will tell if CDI will solve this conundrum.

Themes 6 & 7 provide further details.

4. ESG investing is set to shake up the ecosystem of capital markets

In the West, Covid-19 has blown the lid off long-neglected societal ills, such as stagnant incomes, job insecurity and environmental damage. These have long been eroding the very foundations of today's capitalism, which underpins the whole edifice of capital markets. Its negative externalities inflict heavy uncompensated costs on the wider economy and society while profiting perpetrators. For shareholders, such costs are detrimental to value creation. Given their financial materiality, achieving ESG objectives is no longer at the expense of financial returns; quite the reverse.

The social pillar of ESG has received a significant boost from the pandemic, which vividly showed how the sustainable economies on which markets depend require sustainable societies. The presence of the 'gig economy' has long concealed deep-rooted structural instability in our societies. The social pillar is now seen as being closely tied to intangible assets that affect stock prices. How companies treat their employees is now used as a proxy for their ability to withstand unforeseen shocks in the future.

Given the qualitative nature of the social pillar, data problems abound. But increasing allocations now rest on the belief that perfection cannot be the enemy of progress.

Hence, 67% of our respondents are targeting good risk-adjusted returns from their investments in ESG in general and 57% from their investments specifically in the social pillar. Over a third of them also target a more defensive portfolio that minimises fat-tail/ far-off risks.

"Shareholder-first capitalism is being superseded by the stakeholder model, with big implications for capital markets."

An interview quote

Pension plans want direct line of sight between their ESG investments and their impact on the ground. In this context, active ownership and responsible stewardship are seen as vital for achieving a double bottom line: doing well financially and doing good socially.

Having weathered the market crash of March 2020 relatively well, 76% of our respondents expect to increase their allocations to ESG funds in general and 59% to the social pillar in particular.

It is widely expected that the cultural and legal norms around ESG will take root in the financial market ecosystem such that, over time, they are expected to become part of business best practice to deal with negative externalities.

Theme 9 provides further details.

Theme 1 Governments' post-pandemic agenda will stoke inflation

Covid-19 marks a watershed: the Thatcher–Reagan free market philosophy that long dominated public policy in the West is likely to be replaced by rising governmental intervention, according to 53% of our survey respondents (Figure 1.1). The pandemic has exposed and amplified deep-seated inequalities in all walks of life. Taxes and wages are expected to rise, in response.

The unprecedented policy stimulus in 2020 will likely trigger key shifts in the global economy: from deflation to inflation (58%), from deregulation to over-regulation (45%) and from rising inequalities to mandated redistribution of income and wealth (40%).

Hence, central banks' independence in rate setting and inflation targeting is no longer sacrosanct, as governmental agenda takes priority – 39% cite it as 'likely' and a further 45% say 'maybe'. The long-prevailing Goldilocks era of moderate growth/low inflation in the global economy may soon be over.

Just as inflation reached boiling point and could no longer be tolerated four decades ago under Paul Volcker at the US Federal Reserve, so unemployment and inequalities won't be tolerated now under Jeremy Powell. The recent personal consumption data in the US shows that inflation is currently running as hot as it has done since 1994.

Inflation expectations could well become unanchored under the newly minted average inflation targeting by the Fed; leaving it with three theoretical options around its ultra-expansionary policy: a timely exit, a delayed exit and a chaotic exit, all leading to rising interest rates.

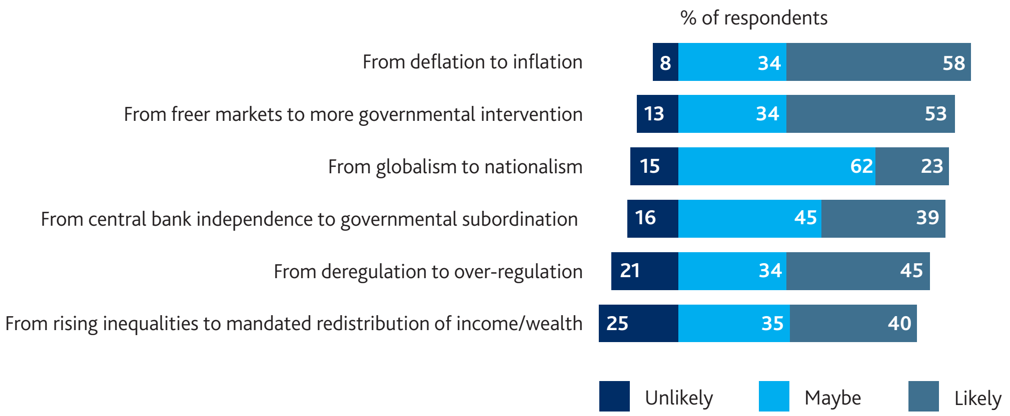
In practice, however, each option now conflicts with the need to keep rates very low for even longer to fund ballooning government deficits via control of the yield curve at both ends. Besides, in policy circles, there is now a tacit acceptance that, alongside economic growth, inflation is a key weapon for shrinking the global debt mountain – now at 345% of GDP and up by 40% since 2019, according to the Bank of International Settlements.

It is highly probable that we are at a key turning point where price rises are more than temporary blips, due to a clash between pandemic-induced supply bottlenecks and strong demand recovery. This is at a time when the mega forces that held inflation in check over the past four decades – e.g. the opening up of China and globalisation – are also about to go into reverse.

Turning points in the inflation regime arrive with little warning, if history is any guide.

Turning points in the inflation regime arrive with little warning, if history is any guide.

Figure 1.1 **How likely is it that the Covid-19 crisis will cause the following regime shifts in the global economy over the next 3–5 years?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"As inflation accelerates, central banks have to choose between tackling it with rate rises or controlling the yield curve. They can't do both."

"Nobody knows the true scale of the damage to the productive base of the global economy. It's hard to believe that it will simply snap back."

Theme 2 Central bank's influence on asset prices will weaken

Faced with a choice between holding rates or controlling inflation, central banks may choose the latter in order to retain credibility. Even if they can't, markets will drive rates if inflation expectations become unanchored.

This much is clear from the fact that 56% of our respondents expect rates to rise over the next three years (Figure 1.2). This is corroborated by 50% who also expect inflation to rise on a scale that materially affects their asset allocation.

Many among today's generation of central bankers have not had to deal with an inflation problem during their careers.

In this scenario, 71% expect investment returns to be a lot lower as the last decade's artificially inflated asset price boom unwinds. This is because rising rates will herald an era in which returns will begin to be influenced more by the usual market forces and less by central bank intervention that had, hitherto, effectively set a floor under asset prices and dampened their volatility via quantitative easing and near-zero rates after the Global Financial Crisis of 2008.

This benign influence is likely to weaken. 49% believe that central banks will no longer be able to dampen volatility on the same scale as they did in the last decade. And nor will they be able to artificially boost asset prices, according to 47% of our respondents.

As a corollary, therefore, 35% of our respondents believe that mean reversion will become the norm as central banks' influence on asset values weakens and asset prices reconnect with their fundamentals in earnest. This analysis invites two caveats.

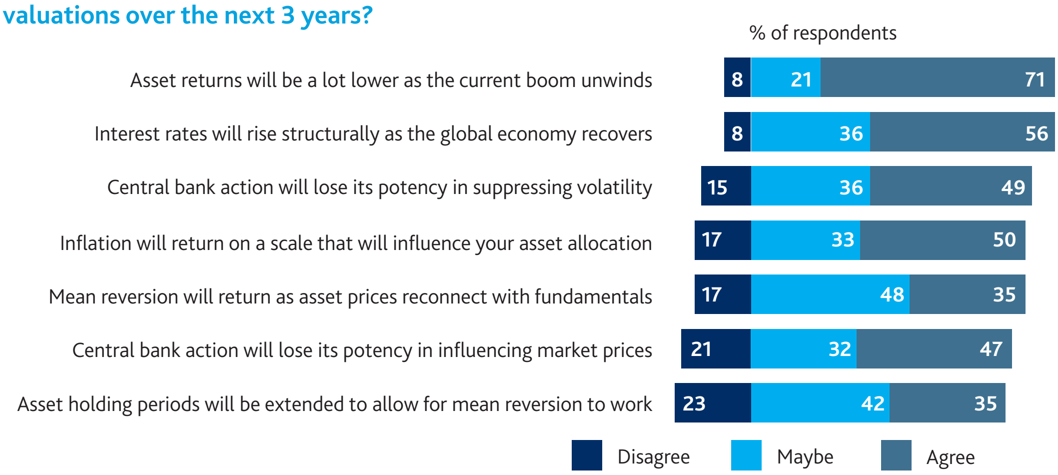
First, the scope for policy mis-steps is big. Central banks are now dealing with data on inflation and job markets that are unusually distorted by the pandemic to the point where the underlying reality is hard to discern.

Hence, the Fed's declared intention to react only when there are signs that inflation expectations are being dislodged makes sense. But it also carries big risks that the re-anchoring process via rate rises may take a long time once the Fed's credibility is dented, as happened in the 1970s. Only draconian rate hikes by Paul Volcker saved the day back then. This scenario features strongly in our survey respondents' asset allocation.

Second, despite these concerns, our respondents do not underestimate the power of central banks in rescuing markets in the event of another meltdown – in line with the 'Greenspan put' since the 1980s.

While accepting this possibility, our respondents are putting a lot more weight on economic fundamentals to limit the resulting losses and profit from any subsequent mean reversion.

Figure 1.2 **What is your pension plan's overall assessment of the impact of the regime shifts on asset valuations over the next 3 years?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"There is an entire generation of portfolio managers who have not worked in a world with inflation above 5%."

"Inflation is always discounted in interest rates, unless it is totally unexpected. So, markets will pre-empt central banks and push up rates."

Theme 3 Covid-19 has made a bad situation worse

Covenant risk – the ability of the plan sponsor to underwrite the obligations of a pension scheme over its lifetime – is at its all-time high in most DB markets.

Like a python crushing its prey, low rates have long been constricting Defined Benefit pension plans worldwide via so-called negative convexity. It means the more rates fall, the faster liabilities tend to increase, the bigger the contributions their sponsors are forced to make, and the more risk averse they become.

Just as damaging, falling rates also mean lower cash flows, as plans typically rely on bonds to fund regular pay-outs to their retirees. To cover the resulting shortfall, plans have to invest even more or hold fire sales of their current assets. To make matters worse, the lockdowns have forced many plan sponsors to defer their deficit repair contributions and request 'pension holidays', while posting profit warnings during the lockdowns.

Unsurprisingly, therefore, 48% of our survey respondents report that the impact of the pandemic on the financial viability of their plan has been 'negative' while only 6% think it has been 'positive' (Figure 1.3). Similarly, 39% report a 'negative' impact on the overall funding ratio, while 0% report it as 'positive'; and 46% report a 'negative' impact on cash flow for paying regular pensions, while 9% report a 'positive' impact. Indeed, nearly half of our respondents are already in negative cash flow status due to ageing demographics (discussed later in Theme 6).

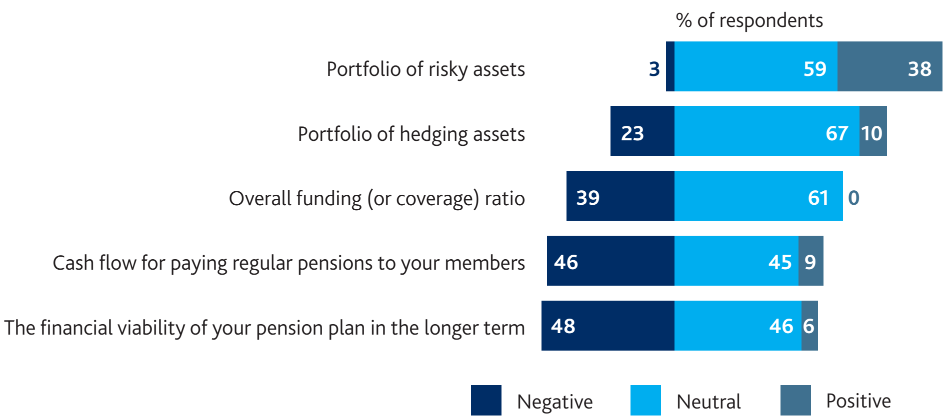
About the only area where a net positive impact is evident is in the portfolio of risky assets. As the post-pandemic market bounce turned into the mother of all rallies in 2020, 38% reported a 'positive' impact and only 3% reported a 'negative' impact.

Notably, the bounce was not felt more widely, since ageing demographics have been pushing many plans into de-risking mode via bond investing during the past two decades, in line with the regulatory requirement in all pension markets.

These plans have, thus, experienced a triple whammy on account of being overweight in bonds: first, ballooning liabilities, as central banks pushed rates zero-bound at the start of Covid-19; second, falling incomes, as rates plumbed fresh depths; and third, limited upside, when the market for risky assets roared back to life after their fastest meltdown in March 2020.

Now, the fear is that another toxic mix of rising rates and rising inflation will badly hit fixed income assets – around 60% of the portfolio on average – and force them to bear more risk at a time when asset prices bear no relation to reality. Hence, covenant risk – the ability of the plan sponsor to underwrite the obligations of a scheme over its lifetime – is at its all-time high in most DB markets.

Figure 1.3 **What has been the net impact of Covid-19 on various aspects of your pension plan so far?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"The pandemic's negative effects on pension finances will linger on for a long time."

"Is the 40-year bond bull market coming to an end? Yes, perhaps or maybe not."

Theme 4 Funding shortfalls require high returns that are hard to target while portfolios are forced to de-risk

With ageing demographics, capital conservation has become a top priority in order to meet the pension commitment. While asset valuations remain artificially high, pension plans worry about the sequence of returns risk: the time taken for a portfolio to recover after a big drawdown. A long recovery period could hamper the ability to meet the maturing liabilities.

Mature plans are expected to have a low level of dependency on their sponsors and be invested with high resilience to risk.

Hence, the principal risk metric now is the likelihood of a permanent impairment of capital. This metric is all the more pertinent with the current state of funding ratios (Figure 1.4, left chart). Only 38% of our respondents have a ratio above the statutory requirement of 100% in most pension markets that enables them to honour the pension promise. At the other extreme, 30% have a ratio below 90%.

To bridge the gap, the annual returns net of fees required in their portfolios vary (Figure 1.4, right chart). 61% need less than 5%, 24% need 5–7% and the remaining 15% need over 7%.

These targets may well prove challenging, while equity markets continue to flirt with their all-time highs after central bank actions have once again borrowed against future returns.

Thus, pension plans are relying on two avenues to improve their funding ratios.

On the non-investment side, they are adopting various solutions, as shown in Theme 8. More immediately, the focus is on seeking further cash injections from their sponsors and extending the recovery period to give them more time to plug deficits. For the longer term, they are implementing structural changes like closing down DB plans and/or reducing benefit levels.

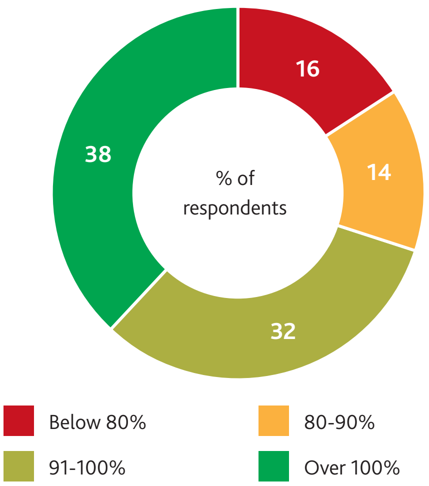
On the investment side, they are increasing allocations to riskier assets that could potentially deliver higher returns. This is counterintuitive from the perspective of the End Game, as envisaged by regulators who worry that risk does not always generate returns, especially while markets are so distorted by central bank action.

Besides, mature plans are expected to have a low level of dependency on their sponsors and be invested with high resilience to risk.

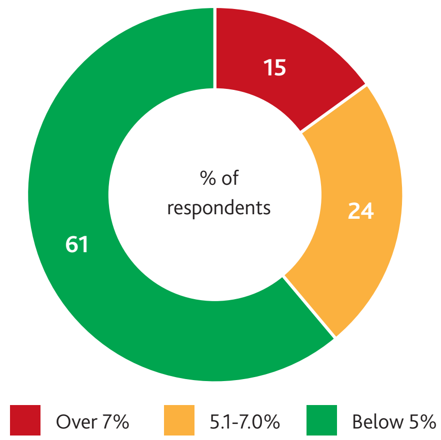
Asset class returns and correlations have become time varying. Going into risky assets is not the best option for some plans. But it is their only option. This is not how the End Game was meant to be.

Figure 1.4

What is your current approximate funding (or coverage) ratio?



What annual returns on your investments would meet your long-term funding needs?



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Our plan sponsor worries about going into risky assets when they seem so overpriced."

"The End Game is challenging when you have negative cash flow and a funding deficit."

Theme 5 Overpriced bonds are being used to de-risk overpriced equities in response to ageing demographics

A toxic mix of regulation, ageing demographics and low rates has pushed the majority of defined benefit plans into a Catch-22 situation: they can't afford to take risks with rising deficits in a maturing plan; nor can they cut deficits without taking risks. Indeed, 32% of our respondents expect to increase risk, 41% expect to decrease it and the rest to leave it static (Figure 1.5, left chart).

31% also report that greater risk taking will conflict with meeting their plans' funding goals to a 'large extent', with a further 47% reporting it to 'some extent' (Figure 1.5, right chart), especially since risk taking in the End Game is inadvisable.

As a gold standard of the End Game, buy-out remains impractical for many.

Behind these dry numbers lie the options that plans are now obliged to pursue by regulators as part of their End Game. It is about how plans intend to meet their pension obligations as ever larger cohorts of post-war Baby Boomers enter their golden years in this decade.

Described in more detail in Section 2, the options and their associated levels of adoption by our survey respondents are as follows:

- *run-off*: having secure finances that can pay pensions until the final member leaves (41%)
- *self-sufficiency*: a funding position where the plan is unlikely to call on the sponsor for further support (30%)
- *buy-out*: passing all pension obligations to an insurer (15%)
- *buy-in*: securing cash flow as part of obligations from an insurer (10%).

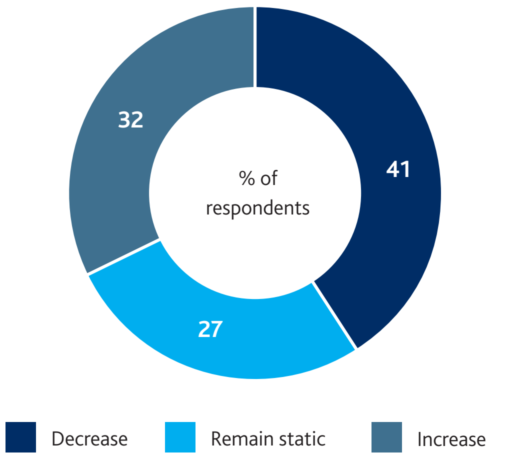
As a gold standard of the End Game, insurance buy-out remains impractical for many. Cost apart, it requires plans to be 100% funded with long-dated corporate and sovereign bonds that do not deliver high-enough returns to repair funding deficits.

Worse still, it also values liabilities by using a very low discount rate that makes deficits look unscalable. Few sponsors have the resources or inclination to top plans up to 100%.

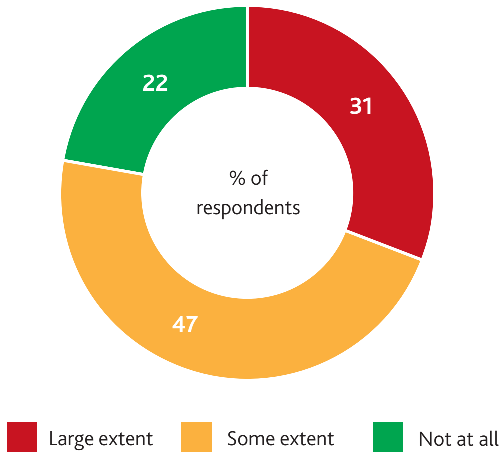
Indeed, Covid-19 has forced many plan sponsors to defer their deficit recovery contributions. The End Game could not have come at a worse time.

Figure 1.5

Looking ahead, what will happen to the overall risk appetite of your pension plan in the face of ageing demographics?



To what extent will your risk appetite conflict with meeting your plan's funding goals?



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Low rates are good for economic revival but they have played havoc with retirement planning."

"The buy-out fee could be as high as 5% of assets when transferred to an insurer."

Theme 6 The End Game favours CDI

The risk–return trade-off has become more acute as cash flows have turned negative for ever more plans: where regular pay-outs to pensioners exceed contributions from sponsors, members and investment income. Currently, 33% of our respondents have 'positive' cash flow, 19% have 'neutral' and 48% have 'negative' (Figure 1.6, left chart). Negative flows have often required cash injections from plan sponsors or asset fire sales at inopportune times. Negative cash flows also come with difficult asymmetry when plans are taking on more risk to plug their deficits. Any resulting losses could far outweigh gains if the asset base takes a hit. This concern is real while it remains hard to know whether today's markets have arrived at a new valuation plateau or we are just in a new 'everything bubble'.

Negative cash flows also come with a difficult asymmetry, when plans are taking greater risks to plug their deficits.

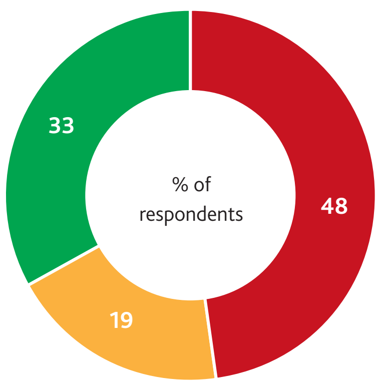
Rising interest rates can help the matter by reducing plan liabilities (Figure 1.6, right chart): 19% regard their impact as 'positive' and a further 50% regard it as 'somewhat positive'. For many plans, that remains their best hope, even though the next rate-hiking cycle will likely be even more subdued than the last one, during 2015–18, given the current global debt overhang.

Meanwhile, CDI has been taking root. One method it deploys is a wide range of short-dated high-quality investment-grade public corporate bonds on a rolling basis to match the maturing tranches of liabilities. These bonds are managed on a buy-and-maintain basis, since they are usually held to maturity to make both asset and liability cash flows more certain. With interest rates at historical lows, such an approach could be costly.

So, there is a growing tendency to seek regular income, by venturing into higher yielding assets like infrastructure and long lease property. The key limitation of the approach is that the assets that tend to deliver strongly in one area don't deliver as well in others. For example, equities perform well over a longer period, but they come with high volatility in returns and dividends. Nor can they protect funding ratios from the direct impact of changes in interest rates and inflation.

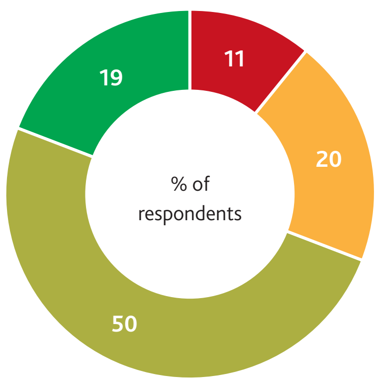
Figure 1.6

What is the net cash flow position of your pension plan currently?



Negative Neutral Positive

What impact will any future rises in interest rates have on your overall pension finances, taking into account both liabilities as well as assets?



Very negative Somewhat negative Somewhat positive Very positive

Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Low yields can boost equities, but they also presage deflationary outcomes in the future."

"Each percentage point fall in interest rates worsens our funding ratio by 12%."

Theme 7 Providing affordable pensions means blending caution with opportunity

Given the agnostic need to earn decent returns in the face of funding deficits, our survey respondents are left to strike a balance between three conflicting aims in their End Game: generating returns to improve the funding ratio, reducing risk relative to liabilities and having rising cash flows as ever more members retire. That means dividing their portfolios into three buckets: return-seeking assets, hedging assets and cross-over assets (Figure 1.7).

Bonds' role as portfolio ballast is now greatly diminished in the event of a big stock market downturn.

Equities dominate the first bucket, so as to provide extra returns to act as a buffer against any emerging risks. Tactical asset allocation, too, is there to earn alpha, since both the nature of asset class correlations and their risk premia have become time varying, creating fleeting return opportunities.

At the other extreme, bonds dominate hedging assets to serve three aims.

First, conserve capital in case the global economy tips back into secular stagnation after a one-time recovery from the big policy stimulus in 2020. Second, provide collateral for hedges against a key unrewarded risk: rising interest rates. Third, deliver cash flows via a wide range of short-dated high-quality investment-grade public corporate bonds that match liabilities on a rolling basis, as a part of CDI.

In between are cross-over assets, with equity-like returns and bond-like features. They are also included in CDI, given their more predictable cash flows and/or terminal values – like high-quality equities, real estate and infrastructure – and are also used to match shorter tranches of liabilities.

Because of the relative dormancy of inflation over the past 35 years, it is unclear which asset classes provide the best hedge. For now, the focus is on equities, commodities and private market assets – like private debt, real estate and infrastructure – where inflation protection can be hardwired into asset mandates.

However, a big concern currently is that inflation and rising rates could hit hedging assets just when they are needed to de-risk the equities that target high returns. As portfolio ballast, bonds now have limited capacity to make up for stock market losses in a downturn. They are also more vulnerable to a rapid sell-off if inflation gathers pace.

Pension obligations are maturing against a most inopportune macro-economic backdrop. In asset choices, therefore, there are no simple options, only trade-offs.

Figure 1.7 **Over the next 3–5 years, which of the following asset classes will be most suited to delivering the End Game of your pension plan?**

Return-seeking assets	% of respondents
Global equities	63
EM equities	57
Tactical asset allocation	44
European equities	43
US equities	29
Small cap equities	23

Cross-over assets	% of respondents
Infrastructure	59
Real estate	56
High quality equities	53
Private equity	48
High yield bonds	42
Commodities (excl. gold)	38

Hedging assets	% of respondents
European IG corporate bonds	48
EM IG corporate bonds	44
Private debt	39
European government bonds	33
US IG corporate bonds	27

Asset growth ← → Liability matching

Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Cross-over assets target capital growth, income and inflation protection."

"IG corporate bonds help to immunise time-based tranches of liabilities."

Theme 8 DB plans have entered their twilight years

Falling interest rates since the 2008 crisis have played havoc with DB plans. The latest fall, which occurred in the wake of the pandemic, is the final blow in a long saga that has made these plans ruinously expensive for their corporate sponsors. Worldwide, DB schemes are becoming the preserve of the public sector, thanks to taxpayer backstops.

Worldwide, DB schemes are becoming the preserve of the public sector, with taxpayer backstops.

Even the once rock-solid DB market in the Netherlands is now transitioning to a new system in which pension entitlements will have defined contribution characteristics and simply rise and fall in line with markets. DB plans will disappear. Interest rates will no longer determine pension affordability, after continuously hitting fresh depths.

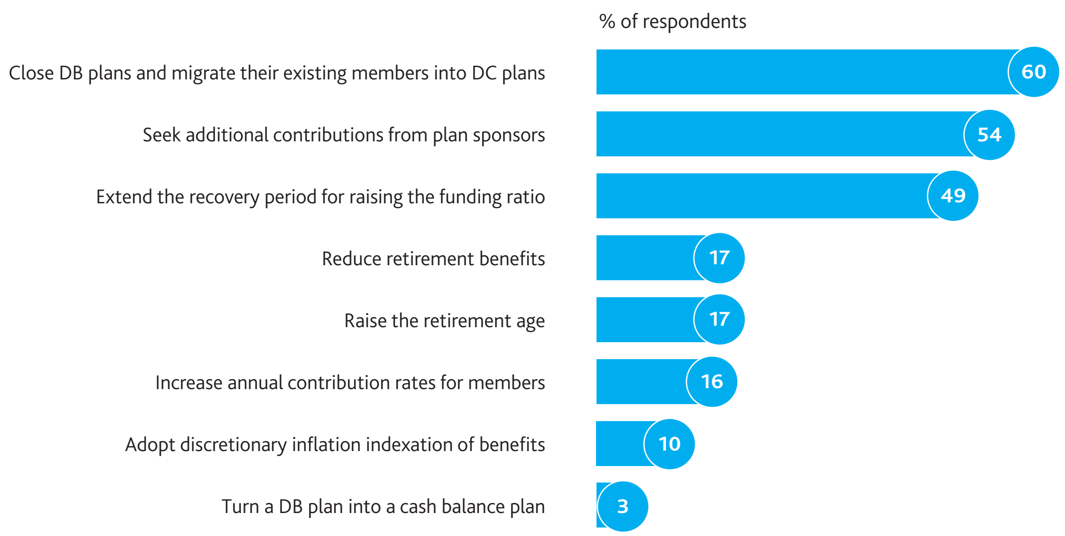
Among our survey respondents, 60% are closing their DB plans and seeking to move existing members to DC plans (Figure 1.8). 54% are seeking additional cash injections from their sponsors to repair their finances at a time when sponsors themselves have been hit by lockdowns. And 49% are seeking to extend their deficit recovery periods.

Once perceived as a gold-plated incentive for attracting, retaining and motivating talent, DB plans are now seen as a millstone around sponsors' necks. Over the past decade, attempts have been made to reduce benefits and raise the retirement age. This has not been easy, as benefits have been hardwired into employees' job contracts, leaving little room for manoeuvre now.

For their part, DC plans are innovating around target date funds that reduce investor foibles and deliver retirement solutions. But plan members are left to face the three most silent of portfolio killers: sequence of returns risk, based on the time taken for a portfolio to recover after a big market fall; inflation risk, when rising prices erode returns and assets; and longevity risk, when investors outlive their assets. Currently, most of them are in the asset accumulation phase, like DB plans 15 years ago.

There are fears that, without rising stock markets, many of today's DC plans will face unfunded 'shadow' liabilities and suffer the same fate as their DB peers.

Figure 1.8 **What structural changes have your pension plan made (or does it intend to make) to ensure that it remains financially viable in the wake of the Covid-19 crisis?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Sponsors with frayed nerves have been strained to breaking point by the pandemic crisis."

"It is hard to see how DC plans will succeed where DB plans have struggled."

Theme 9 ESG investing is going from niche to mainstream

ESG investing has matured to the point where pension plans are demanding hard evidence of physical impacts on the ground beyond the good performance numbers delivered so far.

Covid-19 has starkly exposed deep-seated income and wealth inequalities as well as environmental degradation that has been building up over the past 40 years as side effects of globalisation and digitalisation. People in the gig economy with tenuous jobs, low pay and no skills training suddenly emerged as key workers running transport and grocery stores and providing vital medical support during the crisis. Accordingly, how companies treat their employees is now used as a proxy for their ability to withstand unforeseen shocks. This in the belief that sustainable economies that deliver good investment returns need sustainable societies. In recognition, the trend towards ESG investing has intensified, as described in Section 3.

First, it shows that the social pillar of ESG has gained traction: 32% regard it as the most important in the post-pandemic era, up by 2% since 2020. In turn, the respective figures for environment and governance are 43% and 25%. TV footage of hurricanes, wildfires, floods and torrential rainfall has also demonstrated the reality of climate change.

Second, the return expectations of the social pillar are the same as for other forms of investing. However, its advance into the core portfolio remains nascent.

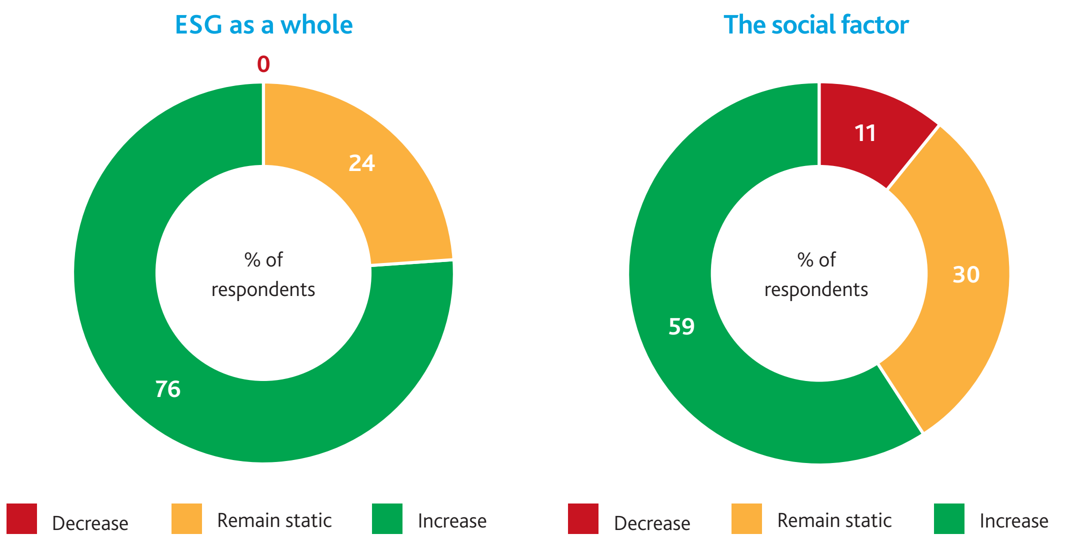
Third, the advance of ESG investing is further corroborated by the latest data from the Global Sustainable Investment Alliance, reporting 15% growth in assets between 2018 and 2020. The advance has been subject to powerful tailwinds from global influential alliances such as the Net Zero Asset Managers Initiative and Climate Action 100+.

Fourth, ESG investing has matured to the point where pension plans are demanding hard evidence of physical impact on the ground that goes beyond the good performance numbers delivered thus far. Such good numbers have a long way to go before hitting the point of diminishing returns.

Finally, current allocations are likely to rise over the next 3–5 years (Figure 1.9) – to ESG as a whole (76%) and to the social pillar (59%).

Contributing to this are three catalysts: Covid-19, the election of the pro-green administration in the US and the United Nation's COP26 event in November 2021.

Figure 1.9 **How will the allocation percentage change over the next 3–5 years as a result of the pandemic crisis?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

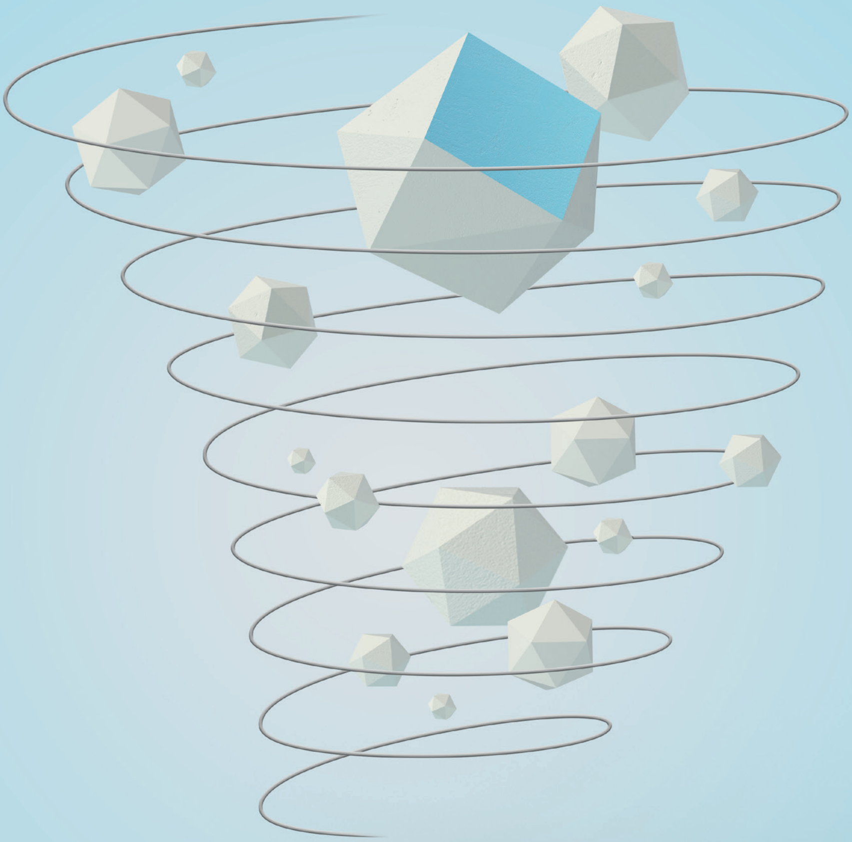
Interview quotes

"ESG investing is now about capitalising on opportunities, minimising risks and making quantifiable impacts."

"ESG is reshaping the ecosystem of financial markets, as societies develop zero tolerance for negative externalities."

2 Planning for the End Game

How is asset allocation being adapted to deliver affordable pensions?



Overview

Aims

Due to ageing demographics, pension plans are adapting their asset allocation approaches as part of their End Game, which is about how they aim to discharge their pension obligations. This section highlights:

- the options being used during the End Game
- the central role of CDI
- the trifurcation of the asset portfolio
- the rise of cross-over assets
- changing criteria in selecting external asset managers.

Key findings

a. End Game options

Four options are being used currently. In descending order of importance, they are:

- *run-off*: having secure finances that can pay pensions until the final member leaves
- *self-sufficiency*: a funding position where the plan is unlikely to call on the sponsor for further support
- *buy-out*: passing all pension obligations on to an insurer
- *buy-in*: securing cash flow from an insurer for a portion of obligations.

Low rates have conspired against the two preferred options: buy-out and buy-in.

"The End Game is a journey of conflicting goals."

An interview quote

b. Rise of CDI

CDI now dominates the End Game.

It involves de-risking alongside re-risking to achieve three conflicting goals:

- generating returns to improve the plan funding ratio,
- reducing risk relative to liabilities to conserve the capital base
- meeting cash flow requirements as ever more members retire

c. The trifurcation of portfolios

Old-style strategic asset allocation is being augmented by three asset buckets to facilitate dynamic positioning that is influenced by different narratives about the global economy and the rise of inflation. The buckets are:

- return seeking
- hedging
- cross-over assets.

d. Cross-over assets

Cross-over assets come mostly from private markets.

They variously target cash flow matching, higher returns and inflation protection.

e. Manager selection criteria

Three capability clusters are central to selection:

- ESG integration
- client proximity
- dynamic investing.

Low rates are limiting End Game options

Prevailing regulation has enjoined pension plans to implement various options as part of their End Game.

Due to ageing demographics, private sector DB pension plans have been in a state of continuous decline over the past two decades – in terms of the number of schemes and their membership – in all the key pension markets globally. The vast majority of such plans are either closed to new members or to new accrual. As we saw in Figure 1.6 in the *Executive Summary*, the majority are cash flow negative: regular payments to pensioners exceed contributions from sponsors, members and investment income.

As a result, prevailing regulation has enjoined pension plans to implement various options as part of their End Game: namely, discharging their pension obligations as ever-larger cohorts of post-war Baby Boomers enter their golden years. Thus, pension plans are obliged to set out their long-term funding objective to achieve their endgame ambition for their members.

Crucially, mature plans are expected to have a low level of dependency on their sponsors and be invested with high resilience to risk. The options now being adopted are presented in Figure 2.1.

The most favoured option of our survey respondents is 'run-off'(cited by 41%): it means having very secure finances that can pay pensions until the final member leaves.

The second favourite option is 'self-sufficiency' (30%): a funding position where the plan is unlikely to call on the sponsor for further support in terms of additional contributions, while producing the required cash flows to pay beneficiaries. Thus, the first two options rely on a plan's own balance sheet to meet its liabilities.

In contrast, two off-balance sheet insurance-based options are much less favoured currently: 'buy-out' (15%) and 'buy-in' (10%).

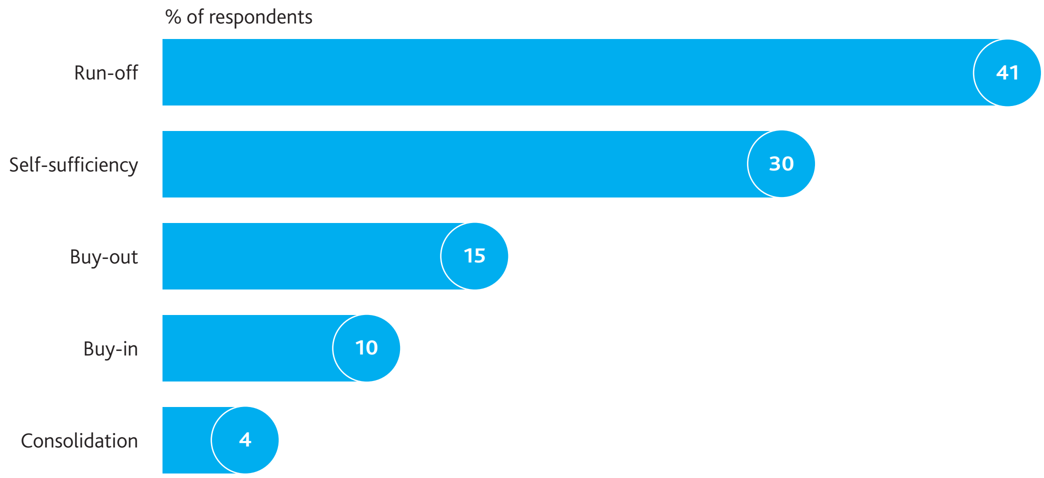
Via bulk annuity purchase, the first of these involves passing on all pension obligations to an insurer by settling all liabilities, duly discounted at a risk-free rate. The second involves securing a cash-flow stream for only a portion of plan members from an insurer.

Finally, interest in the use of alternative consolidation mechanisms – via either merging schemes or transferring liabilities to a third party – is very limited at present (4%).

Many plan sponsors have long aimed to carry out a full insurance buy-out as the gold standard of their End Game, but for three formidable hurdles.

To start with, the majority are nursing funding deficits, with funding ratios less than 100% (Figure 1.4, left chart).

Figure 2.1 **Which option is your pension plan pursuing as a part of its End Game?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Our plan reached peak cash flow ten years ago. Managing negative cash flow since then has been a whole new ball game for us."

"By valuing liabilities on a buy-out basis, the deficits look unscalable due to the very low discount rate that is required to be used."

Many plan sponsors have long aimed to carry out a full buy-out as the gold standard of their End Game, but for certain hurdles.

Sponsors have been legally obliged to make so-called deficit recovery contributions over the past two decades, as interest rates tumbled from 5% in 2007 to near zero within two years, thus witnessing the skyrocketing of the discounted value of pension liabilities.

Furthermore, as a precondition, the buy-out option also requires plan sponsors to dig deep into their pockets and contribute enough to make the plan 100% funded, plus pony-up a margin – the fee to the insurer on top of the assets it is transferring. This could be as high as 5% of the assets involved.

Finally, the buy-out option involves 'investing like an insurer', by buying assets – often mostly long-dated corporate bonds – in order to cash flow match their liabilities.

On the flip side, however, corporate bonds cannot deliver high-enough returns to repair deficits. Indeed, many plan sponsors have had to delay deficit repair payments after declaring profit warnings due to the abrupt lockdowns in 2020–21.

That necessarily leaves sponsors with an End Game dominated by either the run-off or self-sufficiency option (see Insights). Against ageing demographics, it typically involves matching asset inflows with expected outflows, while fully hedging other valuation risks, such as interest rates and inflation, as we shall see in the next subsection.

Under this self-managed solution, pensions would continue to exist in their current form, retaining their assets and liabilities while continuing to participate in nationwide insurance 'lifeboat' schemes such as the Pension Benefit Guarantee Corporation in the US and the Pension Protection Fund in the UK.

The advantage of this approach relative to a buy-out is that de-risking can be achieved at a potentially much lower expected funding cost – but with the need to manage residual risk – than an insurance option. The disadvantage is that sponsors must bear all the risks in the End Game and continue to provide all the necessary backstops.

This is not how the End Game was meant to be.

Interview quotes

"The biggest multi-employer plan in the US, with 10 million members, is due to go bankrupt by 2025."

"Covenant risk is now at its highest in all pension markets."

Insights

Hope for the best and prepare for the worst

Our End Game is self-sufficiency: run our plan to the end of its life. Before the pandemic, we had considered the buy-in option for a portion of our liabilities, as a prelude to a full buy-out over time. But it proved expensive, as our funding level then was 94%.

Now it has dropped to 91%, after the market turmoil and rate cuts in 2020. Our liabilities are up 9% and our assets 3%. So, any insurance option would require a further cash injection from our plan sponsor to help us immunise our portfolio with gilts in order to receive a competitive rate from insurers.

This is hardly likely. Our sponsor was obliged to issue two profit warnings last year and has now applied for contribution 'holidays' and the postponement of employer deficit recovery contributions until its own finances improve.

Our best hope is a revival in the business fortunes of our sponsor.

Our core problem is that the more rates fall, the faster liabilities tend to rise. To counter that, rising rates will not be enough. We need much higher returns on our assets. That's a tall order at a time when all asset prices are so artificially inflated and we are bracing for a low-return environment.

So, self-sufficiency is not our first choice, it's our only choice. Low rates are good for economic revival but they have made pensions unaffordable. There are no upsides for plan sponsors.

~ A UK Pension plan

CDI now dominates the End Game

The challenges associated with ageing demographics have been vastly compounded by low rates.

Most pension plans in our survey went into the pandemic crisis with their finances in far worse shape than they were in the 2008 Global Financial Crisis. They are now caught in a Catch-22 situation: they can't afford to take risks with their deficits so big and cash flows so inadequate, nor can they cut those deficits without taking risks. The challenges associated with ageing demographics have been vastly compounded by low rates. These have been constricting pension finances and reinforcing so-called negative convexity: the more rates fall, the faster liabilities tend to increase, the bigger the contributions their sponsors are forced to make, and the more risk averse they tend to become. So, demand for bonds has come thick and fast, as has demand for deferring deficit repair contributions by plan sponsors since the start of Covid-19.

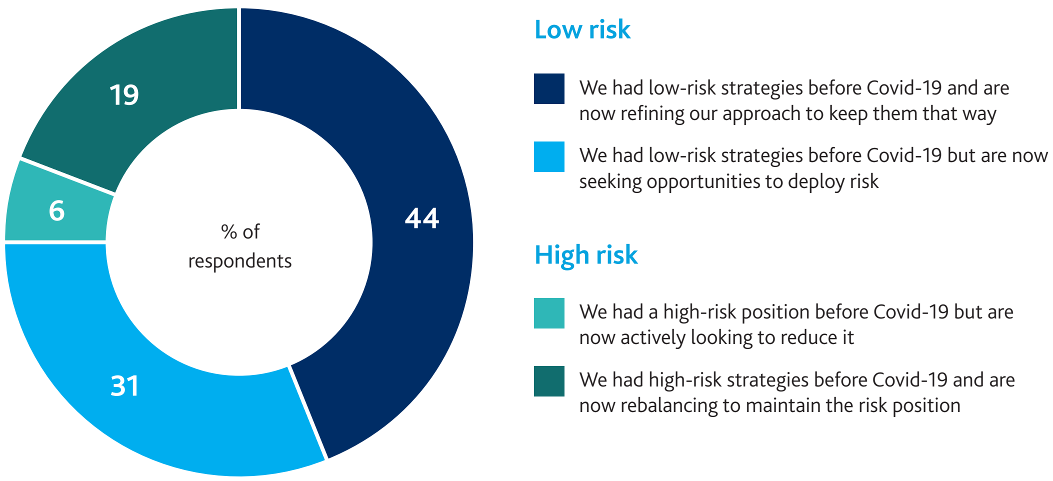
The result is an eclectic mix of de-risking and re-risking in two distinct groups (Figure 2.2). Among the 75% who had low-risk strategies before the pandemic, 44% are keeping them that way, while 31% are now redeploying risk in search of higher returns to repair their deficits.

Conversely, among the 25% who had high-risk strategies, 19% are keeping them that way, while 6% are now actively seeking to reduce risk. For example, cash contributions received by the DB plans of FTSE 100 companies alone have been over £175 billion since the 2008 crisis. The alternative was to sell assets at the most inopportune times to fund regular pay-outs to retirees. Unsurprisingly, covenant risk – the ability of the plan sponsor to underwrite the obligations of a scheme over its lifetime – is at its all-time high in most DB markets.

The reason is a difficult asymmetry imposed by negative cash flows. Pension plans need decent returns to beef up their funding status. But if risk fails to generate returns, as markets remain so distorted, losses far outweigh gains.

In response, our respondents are aiming to strike a balance between their three seemingly conflicting goals: generating returns to improve the plan funding ratio, reducing risk relative to liabilities and meeting cash flow requirements.

Figure 2.2 **To achieve the End Game, which of these four statements on de-risking applies to your plan currently?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"We either dial up risk or seek extra cash from our sponsor."

"As plans mature, asset allocation is generally about choosing the least lousy option."

A full CDI portfolio is now only feasible for pension plans that are well funded, based on a low discount rate.

Considering the first goal, nearly 62% are now nursing deficits, as seen in Figure 1.4. So, return generating is left to equities, real assets and illiquid credit. All of them are also expected to provide extra returns to act as a buffer against any emerging risks (e.g. longevity).

The second goal involves hedging inflation and interest rate risks by adopting liability driven investing (LDI). It also means holding enough collateral – mostly safe haven assets and cash – to support the hedge, while aiming to generate high-enough returns. Elsewhere in the portfolio, LDI typically employs Treasury STRIPS, long government and credit bonds and derivative exposures.

The third and most important goal is rising cash flow, as more members join the ranks of retirees. This favours CDI via a wide range of short-dated high-quality investment-grade public corporate bonds on a rolling basis (see Insights).

These are managed on a buy-and-maintain basis, since they are usually held to maturity, to make both asset and liability cash flows more certain. With interest rates at historical lows, such an approach can be costly. So, there is a growing tendency to seek regular income from venturing into higher yielding assets like infrastructure and long-lease property.

However, the key problem with this three-strand approach is obvious: the assets that tend to deliver strongly in one area don't deliver as well in others. For example, equities can deliver higher returns over a longer period, but they come with high volatility in returns and dividends. They also cannot protect funding ratios from the impact of interest rates and inflation.

For its part, investment grade credit generates more modest levels of expected return than equities and doesn't provide protection against the impact of changing inflation on the scheme's funding position. Nor is it immune from illiquidity and default risks.

Hence, a full CDI portfolio is now only feasible for pension plans that are well funded, based on a low discount rate. For plans where the return requirement bar is high, a partial CDI approach has been the norm. Either way, CDI will remain the flavour of the decade, as ever more plans mature.

Interview quotes

"In CDI, you want to be extra focused on liquidity and defaults."

"Without decent cash flow, you are forced to sell assets at the wrong time to pay pensions."

Insights

The rise of CDI

The 2006 Pension Protection Act was a game changer for US private sector plans. It mandated that our liabilities be discounted at the currently prevailing AA rates. It also stipulated that companies had to mark-to-market their investments and net funded status. With a swelling rank of retirees, the Act propelled interest in matching our assets to our future liability, instead of simply maximising returns.

Some 80% of US corporate plans have now adopted LDI, covering risky assets that target high returns and hedging assets that immunise two unrewarded risks: interest rates and inflation.

Then came the market crash of 2008. Our funding ratio plunged to 70 percent from a high of 98%, as zero-bound interest rates sky-rocketed our liabilities, while our asset values had shrunk by 35%. Since then, even after a decade-long raging bull market, our ratio had only crept up to 90% just before the Covid-19 crisis, only to fall to 83% in 2020 as liabilities went up 11% and assets 4.5%.

So, we've adopted CDI by tranching our liabilities by their time profile and then broadening the range of asset classes in the hedging portfolio. In particular, various credit assets – with more predictable cash flows and terminal values – are now used to match shorter-dated liabilities on a rolling basis.

At the same time, we are investing in equities to generate excess returns to boost our funding status; and investing in sovereign bonds, in case the global economy tips back into secular stagnation after a one-time recovery from the big policy stimulus in 2020. Sovereigns also provide collaterals for our hedges.

~ A US Pension plan

Pragmatism will drive asset allocation

As they approach their End Game, pension plans are forced to accept that their biggest risk is to not take risks. Their asset allocation is thus predicated on three assumptions.

First, old-style strategic asset allocation does not work when assets are so mispriced, risks are so obscure and mean reversion is so elusive. Equity returns will remain driven more by central bank liquidity, even though their underlying fundamentals are likely to reassert as rates rise.

Old-style strategic asset allocation does not work when assets are so mispriced, risks are so obscure and mean reversion is so elusive.

Second, the days when you could rely on sovereign bonds for income are over – maybe for a very long time. Bonds now also have limited capacity to make up for stock market losses in a downturn.

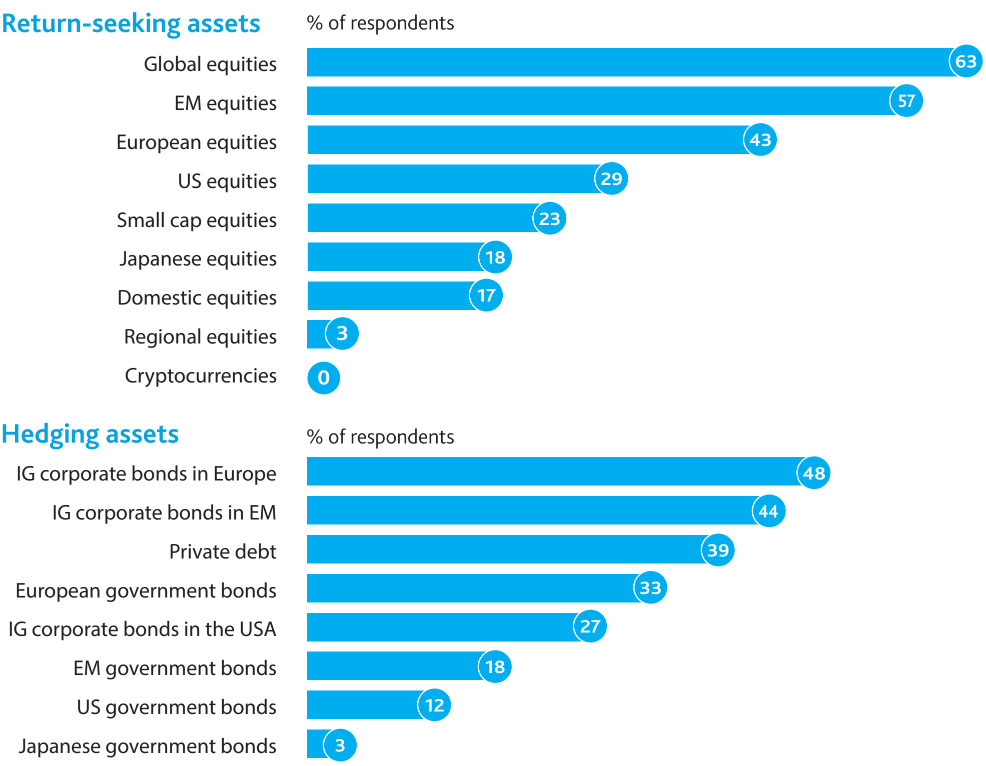
Third, the Fed has changed the market regime by adopting average inflation targeting. It will stay behind the curve and let inflation drift higher for a while before slamming the brakes on, which could potentially cause big market ructions, as witnessed during the 2014 Taper Tantrum, which saw collective investor panic when the Fed decided to start unwinding its QE programme.

Accordingly, asset allocation will blend caution with opportunism. Depending upon individual circumstances, plans will adopt one or more of five options: ramp up risk, focus on risk factor exposure instead of asset classes, remove limits on leverage and liquidity, be more dynamic in the run-off journey and lower their return expectations.

Such pragmatism implies that the demarcations between the three usual asset buckets in pension portfolios (return seeking, hedging and cross-over) will become weaker.

Asset classes that will be favoured over the next 3–5 years in the first two buckets are given in Figure 2.3. Those relating to the third will be covered in the next subsection, since they combine equity-like returns with bond-like features.

Figure 2.3 **Over the next 3–5 years, which of the following assets will be most suited to delivering the End Game of your plan?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Rivers of cash have nowhere to go. Nobody knows whether they should be buying or selling."

"The US is the best house on the street. And the best house always comes expensive."

Fundamental investing will be used to provide downside protection, while central bank action causes over-valuation.

Return-seeking assets typically cover equities. The standouts among them are global equities (cited by 63% of the respondents), EM equities (57%) and European equities (43%).

In contrast, US equities trail in fourth place, since any rate rises will disproportionately hit the future earnings of FAANG and other growth stocks that have been powering US equity markets since the start of the pandemic. In contrast, EM equities will primarily target three countries: China, South Korea and Taiwan, which together account for 66% of the MSCI EM Index. European equities will target value stocks in areas like financials, cyclicals and construction.

Turning to the hedging assets in Figure 2.3, once again, European and EM fixed income assets are likely to be favoured over US ones. However, that assessment comes with a sizeable caveat: current bond prices defy logic. They are at high risk of selling off unless someone goes to great lengths to prop them up. In key economies like Germany and Japan, investors earn a negative return on trillions of dollars of sovereign debt (see Insights).

That said, many corporate DB plans will continue to own long Treasury bonds so as to provide downside risk mitigation in the return-seeking bucket and to supply liquidity for benefit payments, especially during down markets. However, the cost of accessing these benefits is meaningfully higher than it has been historically.

Two other points are noteworthy. First, value stocks were among the clear losers widening the valuation gap to growth stocks last year. Lately, this trend has been interrupted. Growth stocks have remained relatively strong, but value stocks have rebounded considerably. This is expected to continue because the likely steepening of the yield curve may well connect valuations to their fair value. Fundamental investing will be used to provide downside protection while central bank action causes asset overvaluation and increases market risk.

Second, factor investing will gain traction, as pension plans use them for dynamic investing to capture all-weather returns across market regimes.

Interview quotes

"Investors might rue the day they ventured outside their usual stomping ground into asset classes that lack sufficient liquidity in a correction."

"Our pensions are fully indexed. That means rising inflation could be a big deal for us."

Insights

Planning for an inflationary regime

Despite the current high levels of unemployment in the key economies, rising inflation seems inevitable for many reasons. Governments are seeking to tackle rampant income inequalities. The pandemic has caused supply chain disruptions already set in train by the twin trends of deglobalisation and onshoring.

Above all, the unusual scale and speed of policy stimulus in the global economy – 25% of GDP in 2020 – has two aims: overtly, to boost growth and jobs; covertly, to stoke up inflation on a scale that could vaporise the rising debt mountain in the global economy since the 2008 crisis.

Our portfolio seeks to hedge it by a mix of assets that achieve one or more of three goals: have a high correlation to inflation in the short term, have the potential to generate returns that are greater than inflation over time, and have the in-built attributes that can cope with unexpected inflation.

But the relative dormancy of inflation over the past 35 years has meant that we don't know for sure which asset classes are best suited to the three goals. For now, our key focus is on equities and private market assets – commodities, infrastructure, private debt – where inflation can be hardwired into asset mandates.

Our worst fear is that rising inflation will erode our fixed income assets – around 60% of the portfolio – and force us to take more risk at a time when asset prices bear no relation to reality.

~ A German Pension plan

Cash flow matching and inflation protection favour real assets

Renewable energy, including hydrogen, wind, solar and battery projects, have already proved popular with investors seeking to counter the effects of climate change.

Asset classes with equity-like returns and bond-like features have come of age, as pension plans advance into their End Game. They aim to provide one or more of three benefits: capital upside for plugging plan deficits, regular income for pension pay-outs, and inflation protection for funding benefit indexation. These imperatives rest on the view that central banks' declared agenda of low rates and rising inflation will steadily vaporise public debt, erode the purchasing power of the underpinning assets and cause a redistribution of wealth from savers to borrowers that could last for at least another 15 years, if history is any guide.

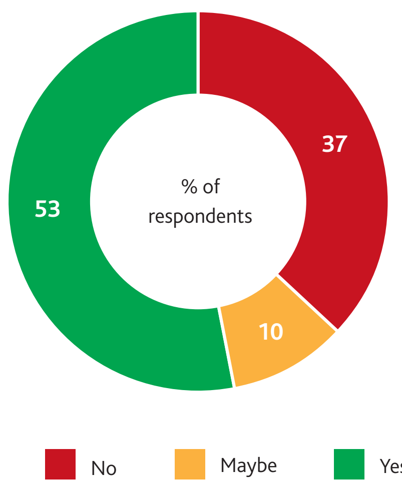
Looking ahead, therefore, the spotlight has been turned on the asset classes that can provide the necessary inflation hedge while delivering regular cash flow and capital upside. As the left-hand chart in Figure 2.4 shows, 53% of respondents plan to deploy them further, on top of current average allocations of around 20%. Growth in six of them is most likely (Figure 2.4, right chart).

Infrastructure tops the list with 59% of our respondents. Renewable energy, including hydrogen, wind, solar and battery projects, has already proven popular with investors seeking to counter climate change. The objective of net zero carbon emissions is enshrined in law across Europe. This is likely to generate a large pipeline of opportunities to invest in low-carbon infrastructure and cleaner buildings, while aligning to net zero will increasingly drive asset values. Because of the public–private nature of the investment, returns are expected to be steadier with some downside protection for low-leveraged projects and similar caps on upside gains.

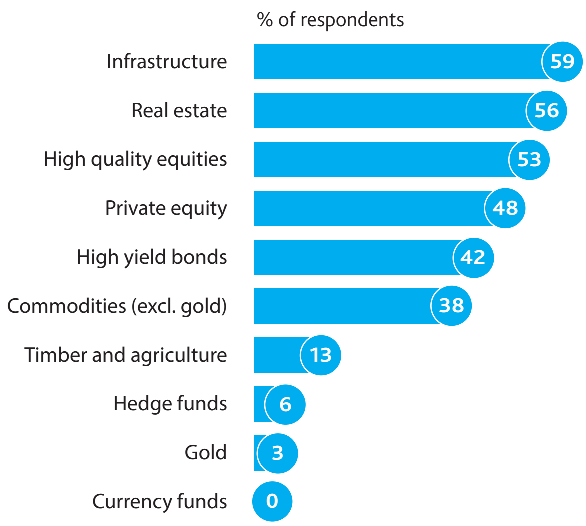
Real estate ranks second (56%), with a significant shift away from office space and towards data centres, healthcare, logistics, science parks and social housing. The pandemic has been an unwelcome experiment in whether a large number of employees can work as efficiently from home as they can in their offices.

Figure 2.4

Will your plan be flexible in deploying cross-over assets when opportunities arise?



Over the next 3–5 years, which cross-over assets will be most suited to delivering your plan's End Game?



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"We look for companies that are world leaders in what they do, regardless of whether they are listed or unlisted."

"Asset allocation should chase returns, not asset classes. Cross-over assets deliver more than returns and cash flows."

Whatever the outcome, partial working from home looks most likely. Offices will continue to play a role in bringing people together to facilitate collaboration.

High-quality equities ranks third (53%). They cover cash flow compounders: companies with steady dividend, low debt, free cash flows, strong pricing power, an admired brand and a high return on equity (see Insights).

With a third of PE assets now held as 'dry powder' – unallocated capital – the opportunity set is limited.

Private equity ranks fourth (48%). Its main benefit is high projected market-beating returns. But with a third of PE assets now held as 'dry powder' – unallocated capital – the opportunity set is limited. In the private equity space, the new-form special purpose acquisition company (SPAC) remains untried by time and events.

High yield will finally find favour (42%) thanks to the swelling ranks of 'fallen angels' – the unexpected downgrading of investment-grade debt into junk territory as a result of the pandemic. Whereas fallen angels made headlines in 2020, rising stars – or high-yield companies that are upgraded to investment-grade status – may be the story of the next two years. They present a unique opportunity to invest in large, well-diversified companies with significant operational and financial flexibility.

More generally, high-yield bonds tend to have lower interest rate risk due to their shorter maturities. While the duration of investment-grade corporate bonds averages 8.5 years, high-yield bonds have less than half that sensitivity to rate moves, as they average only 3.8 years in duration.

Commodities, too, will find favour (38%). Not only are they a source of inflation, they are also an important driver of it. This relationship automatically makes commodities an effective hedge against inflation.

Interview quotes

"There's a better chance of being repaid by cash-rich companies than by national governments."

"The golden rule of today's investing is that there are no golden rules – only common sense."

Insights

Bondification of equities

Central banks' ultra-loose policies since 2008 have rendered obsolete the idea of market cycles and weakened the demarcation between growth and value stocks that existed because of industrial supply-and-demand mismatches.

Our portfolio targets the so-called quality compounders that are emerging as durable sources of value creation, owing to their steady cash flow, which could finance future growth via brand development, capital investments, innovation, human capital and acquisitions.

Their low debt means that they can continue to invest for the future even in downturns when others are paying back their debts. This enables them to remain resilient in the face of supply chain disruptions, while also keeping up with emerging trends in society like decarbonisation, new forms of working and digitalisation.

Their stocks have bond-like features. They deliver good regular dividends. They gain more by losing less. They tend to outperform the market over time. They offer unlimited upside, while traditional bonds trade at values far removed from reality.

Hence, we use them as bond substitutes in our hedged portfolio, especially since the yield on traditional bonds has reached vanishing point. And their value is increasingly exposed to capital loss, if central banks are forced to reverse the current rate cycle in the face of creeping inflation.

Hence, our LDI strategy does not have rigid demarcations between return-seeking assets and hedging assets. Instead, our glide path towards ultimate portfolio immunisation is asset agnostic: we use whichever asset classes will help achieve our End Game.

~ A Swedish Pension plan

Manager selection is now influenced by a range of criteria in the topsy-turvy post-pandemic world

As asset allocation in the End Game phase has become more complex, the criteria used in selecting external managers have become more varied. Investors are trying to kick the past performance habit that was more relevant to their asset accumulation phase. The criteria now being applied fall into three clusters (Figure 2.5).

ESG investing is seen as a vehicle for targeting a double bottom line.

The first centres on capacity for ESG integration (cited by 76%) and theme investing in general (50%). As we shall see in Section 3, ESG investing is now seen as a vehicle for targeting a double bottom line – doing well financially and doing good socially. It is also used to plan for fat-tail/far-off risks.

In turn, theme investing is now being deployed to capitalise on selective growth points in the global economy that override business cycles.

The second cluster centres on capabilities around End Game deliverables (63%). Related to that is a deep understanding of LDI and balance sheet management (52%). The focused approach on specific asset classes has to be augmented by a deeper understanding of clients' End Game priorities.

Whereas the first two clusters aim to understand client needs and risk tolerances, the third cluster seeks to survive and thrive in an investing universe where asset valuations are at all-time highs and where liquidity can evaporate in the blink of an eye.

The cluster includes: an edge in liquidity management in periods of high volatility (49%); a deep understanding of return drivers while markets are deeply distorted by central bank action (49%); an edge in tactical asset

Figure 2.5 **When selecting your external asset managers, which of their capabilities does your plan now take most into account when awarding new mandates?**

Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Balance sheet management is just as important as asset management."

"Macro risks have become far more important than idiosyncratic ones. With better technology, tactical allocation works."

allocation in response to time-varying asset class correlations (44%); and risk factor investing capabilities that cater for time-varying risk premia (43%).

With the market meltdown in March 2020, the traditional risk–reward relationship was turned on its head. Stocks from the technology and pharmaceutical sectors, for example, once used to amplify market movements, rose even higher when the market went up and fell even further when it declined. But in the Covid-19 market, they experienced lower volatility.

Planning for conflicting scenarios remains a high-wire act for asset managers.

At the same time, stocks that previously exhibited a dampening effect, such as defensive and mining stocks, and lagged a spiking or declining market now have sharper ups and downs.

The implication is that stocks from low-volatility sectors can actually increase risk. One argument why stocks may not be as expensive as they seem is that interest rates are extremely low. But low rates usually presage a recession that could hit corporate earnings.

Contradictions like these abound in the absence of a historical precedent for reopening after a global pandemic. So, narratives, based on long-term expectations, are more likely to drive markets than fundamentals.

Hence, pension plans and their asset managers are now planning for three plausible yet conflicting narratives about the markets over the next 3–5 years.

The first envisages that, after the sugar highs from an unprecedented level of policy stimulus in 2020, secular stagnation will return; pushing the global economy into its old low-growth/low-inflation/rising inequalities funk.

The second narrative envisages that stimulus will boost growth and the resulting inflation will drive interest rates into positive territory and allow governments to take long overdue action to tackle mounting inequalities.

The third suggests that we move into a full-blown world of inflation, last experienced in the 1970s. Just as inflation reached a point that could no longer be tolerated four decades ago, so weak growth and inequality can no longer be tolerated now.

Planning for these conflicting scenarios is a high-wire act for asset managers (see Insights).

Interview quotes

"Dealing with competing narratives requires the combined genius of Einstein, Wittgenstein and Frankenstein."

"As the wall of worry gets higher, so does the bar for manager selection."

Insights

Desperately seeking alpha to plug the deficit

Our plan is hit by underfunding and negative cash flow. These require us to deconstruct our liabilities into risks that we want to harvest, using risk factor investing that rewards us for owning those risks.

We no longer have constraints on liquidity and leverage, as we dynamically allocate assets to the corners of the market where risk is being properly rewarded at any one time. Hence, manager selection is closely linked to liability matching and risk factor investing.

We expect our asset managers to bring a number of capabilities to the table. To start with, they need to have a deep understanding of our risk appetite, weakening sponsor covenant and balance sheet problems as we approach our End Game.

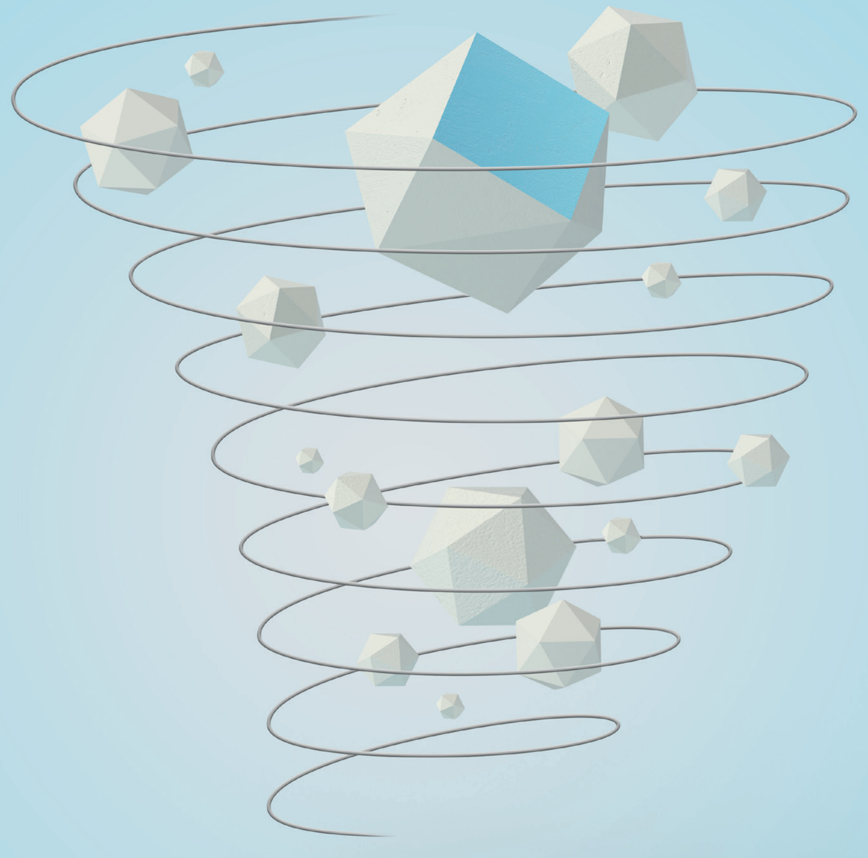
Furthermore, we need tactical asset allocation in the beta space as a source of incremental value by selecting managers who are experts in granular factor exposures that capture the shifting nuances of the unprecedented policy response to Covid-19. We need alpha returns, as our plan sponsor has been unable to make deficit recovery contributions, after issuing a profit warning lately.

Finally, asset managers need a deeper understanding of the time varying correlations that call for a more proactive portfolio rebalancing, while there is a sizeable disconnect between Wall Street and Main Street.

~ A Canadian Pension plan

3

ESG investing
What is the current scorecard?



Overview

Aims

This section highlights the latest trends in ESG investing in four areas as pension plans advance into their drawdown phase:

- the relative weights accorded to individual ESG components and how they are assessed
- the percentage of the portfolio covered by ESG investing
- the benefits that are being targeted by ESG investing
- the recent performance of ESG allocations in the wake of the market crash of 2020.

Key findings

a. Boost for the social pillar

"There are no shortcuts to sustainability."

An interview quote

The largest weight is accorded to 'environment', followed by 'social' and then 'governance'.

The social pillar has received a significant boost from the pandemic, as it vividly showed how the sustainable economies on which markets depend require sustainable societies. This pillar is now seen as closely tied to intangible assets that affect stock prices.

The social pillar, in turn, is accessed via broad ESG funds because of data challenges.

b. Increased ESG share in portfolios

The share of ESG investing taken as a whole has been rising in pension portfolios. Only 2% of respondents have a share of less than 10%, while 52% have a share in excess of 30%.

However, investing in the stand-alone social pillar is still at a nascent stage, owing to issues around data and definitions. 66% of respondents have a social pillar component share of less than 10%, while only 2% have a share in excess of 30%.

c. A story of opportunity and risk

ESG investing is viewed as being as much about opportunities as risk. Hence, three key benefits are targeted:

- good risk-adjusted long-term returns
- a double bottom line
- a more defensive portfolio.

Stewardship and engagement are seen as vital in achieving these benefits.

d. Encouraging recent performance

The performance of ESG allocations since the market fall in March 2020 has been encouraging to the point where pension investors are keen to increase their allocations.

But they also want to see some tangible evidence that their allocations are delivering meaningful and material impacts on the ground, as ESG continues to reshape the ecosystem of the financial markets.

The pandemic has been a wake-up call for capital markets

Sustainable economies that deliver good investment returns need sustainable societies.

Covid-19 is a devastating reminder of the fragility of life on Planet Earth. New diseases that thrive in the wild can find a niche in nature's deteriorating ecosystem caused by the inharmonious relationship between humans and nature. The pandemic has also vividly exposed income and social inequalities that have been building up over the past 40 years of capitalism, powered by globalisation and digitalisation.

In the West, long-neglected ills, such as stagnant incomes, job insecurity and environmental damage, have been eroding the very foundations of today's capitalism that underpin the whole edifice of capital markets.

In sum, the pandemic has driven home one message loud and clear: sustainable economies that deliver good investment returns need sustainable societies.

Unsurprisingly, ESG investing has been emerging as a foundational trend in pension portfolios since the Paris Agreement in 2015. The pandemic has, if anything, accelerated it, in the belief that the pursuit of achieving ESG objectives is no longer at the expense of financial returns; quite the reverse.

Currently, 43% of our respondents regard 'environment' as their main area of focus in the post-pandemic era, 32% regard 'social' as the main factor and 25% regard governance as the main factor (Figure 3.1, left chart).

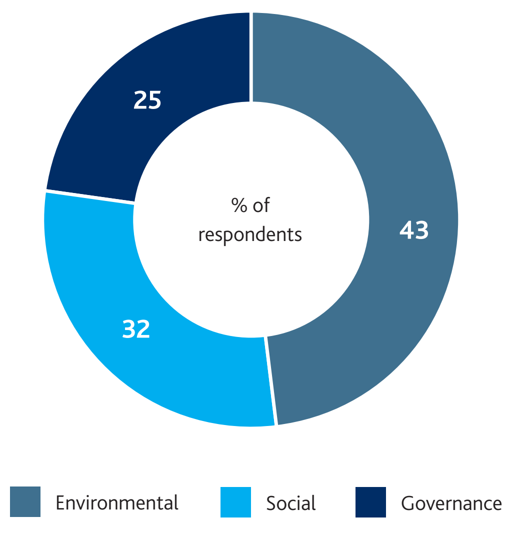
These numbers mark a notable change from the ones reported in our 2018 Amundi/CREATE survey: 45% for governance, 30% for environmental and 24% for social.

In the past, ESG risks fell into one of two categories: event risk or erosion risk. As the name implies, event risk is mostly associated with short-term incidents – like corporate fraud, labour disputes, major governance lapses – that can whipsaw stock prices. The fraud that caused the recent crash of Wirecard in Germany is a good example. In contrast, erosion risk materialises slowly, in response to slow-burn issues like global warming or poor labour relations.

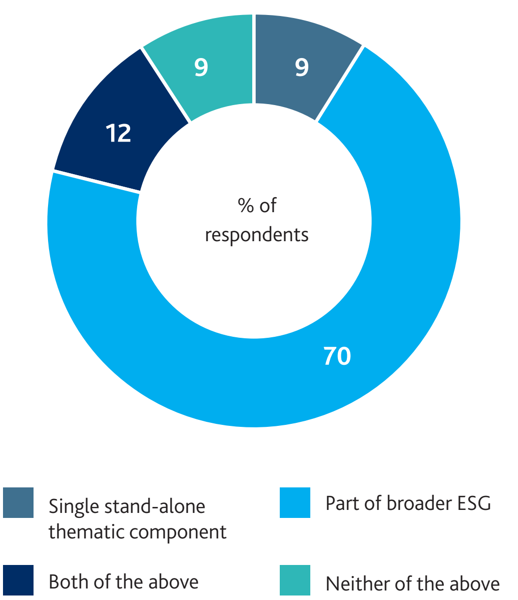
Due to the pandemic, however, the distinction between these two risks has become blurred. During nationwide lockdowns, TV footage of empty roads, animals coming closer to cities and people working from home provided a

Figure 3.1

When considering ESG investing, which component do you consider to be the single most important in the post-pandemic era?



How do you currently treat the social factor in your investment portfolio?



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"The CEOs of listed companies can no longer be relied upon to decide what's best for both shareholders and wider society."

"The pandemic has heightened investors' awareness about the risks and opportunities associated with ESG investing."

Pension plans believe that ESG risks are real and can whipsaw their portfolios.

glimpse of the true scale of environmental degradation in the pre-crisis era. This elevated the immediacy of the environmental pillar.

Similarly, the presence of the 'gig economy' has long concealed endemic structural instability in our societies. This was exemplified by the collapse in the stock price of BooHoo – a listed UK clothing company – when appalling pay and working conditions in its supply chain were exposed in 2020. This boosted the importance of the social pillar (see Insights).

That said, 70% of our respondents invest in the social pillar via broader ESG funds (Figure 3.1, right chart). In contrast, only 9% rely on funds solely targeting the social pillar for two reasons. First, currently, there is a lack of consistent definitions, standardised methodology and reliable data on the social pillar due to its qualitative nature, which works against meaningful KPIs. Available data focus on company policies and procedures, not their real-world impacts. Second, there is strong interdependency between the three pillars of ESG, such that governance is widely regarded as a good proxy for social and environmental standards on the ground. On either count, the situation is improving: reportedly, 90% of companies in the S&P 500 index issued sustainability reports in 2019, up from 20% in 2011.

It underlines the point that ESG risks are real and can whipsaw pension portfolios, while also highlighting opportunities. In Europe alone, €28 trillion of private capital is needed to support the green transition centred on renewables, hydrogen, cleaner transport, buildings and digital infrastructure.

Social bonds that channel finance into areas like affordable housing, education, healthcare and employment are now in demand. Supranational and government agencies were among the leading issuers of Covid-19 response bonds in 2020, raised under the International Capital Markets Association principles that define best practice for reporting the use of proceeds and their impacts.

Interview quotes

"High-profile governance lapses have whipsawed our portfolios and cost us dearly."

"Newly issued ESG debt figures reached $510 bn in 2020, up by $215 bn from 2019."

Insights

The pandemic has turned the spotlight on intangible assets in the social pillar

We believe that good corporate brands resonate with and enhance the loyalty of their customers, especially in consumer-facing businesses. The pandemic has shown how strong brands have continued to thrive and strengthen their market position. These brands place high priority on talent management: recruiting, retaining, developing and deploying their employees in ways that deliver a highly diverse and motivated workforce. This is conducive to three key business benefits: continuous innovation, rising productivity and in-built resilience to external shocks.

Our core expectations around social issues enjoin our investee companies to deliver a healthy and safe work environment, fair wages, opportunities for continuous learning, and respect for freedom of association and collective bargaining. Indeed, the Black Lives Matter protests in 2020 intensified our emphasis on workforce diversity and inclusion, with a strong emphasis on gender and racial equality.

We see a clear business case for taking this progressive approach because human capital is becoming a core part of the intangible assets that influence the valuations of listed companies. Our internal research shows that the share of intangible assets in the market value of S&P500 companies has increased from 17% in 1975 to 84% by 2018.

~ A Danish Pension plan

ESG is advancing into the core portfolios of pension plans

2015 was a watershed year for pension investors, when future-proofing their portfolios became top priority.

In his seminal speech "*Breaking the tragedy of the horizon*", former Bank of England Governor, Mark Carney, warned that capital markets were oblivious to the long-term risks and opportunities from global warming. Hot on the heels of his speech came two key developments.

These developments have brought the three pillars of ESG to the radar screens of investors and governments.

The UN General Assembly adopted 17 Sustainable Development Goals aimed at creating a more viable global economy and society by 2030. For the first time in history, the global community had a common vision for its planet, people and progress.

To cap it all, at the Paris Climate Change Conference at the end of 2015, COP21, some 200 nations signed a landmark agreement to combat global warming by taking nationally determined actions to limit carbon emissions at below 1.5ºC above pre-industrial levels by 2050.

These developments have brought the three pillars of ESG to the radar screens of investors and governments. In the initial phase, the focus was on the environment and governance pillars; but latterly, the pandemic has turned the spotlight on the social pillar and its financial materiality in security prices.

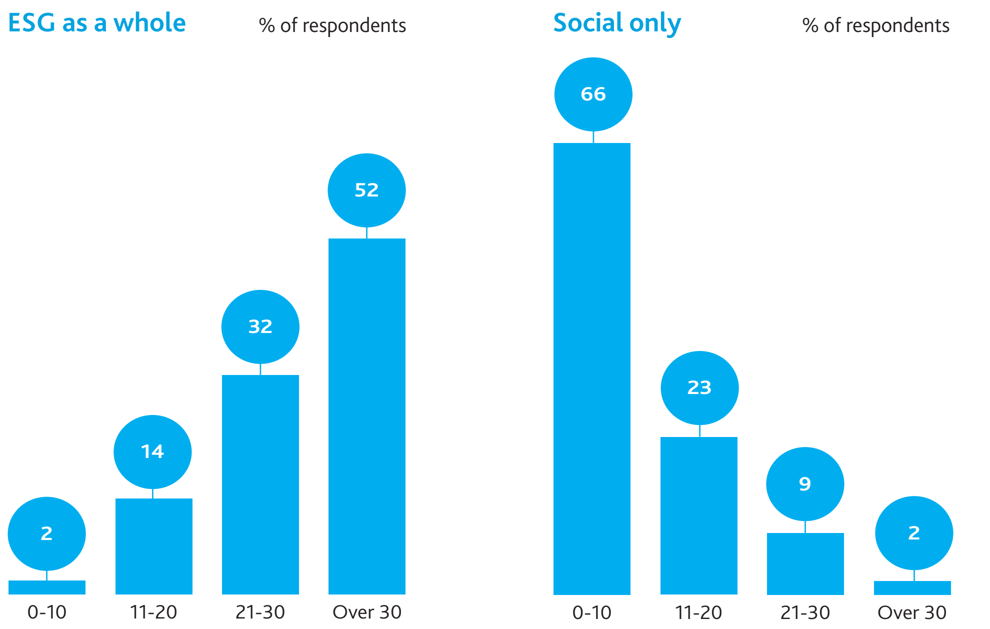
This delayed reaction is duly reflected in the proportion of pension assets currently invested in ESG taken as a whole (Figure 3.2, left chart), compared with the social pillar taken on its own (Figure 3.2, right chart).

As explained in the previous subsection, allocations dedicated to the social pillar have been constrained by data problems and the interdependency of the separate ESG pillars. But there is little doubt that the social pillar is now coming of age. Return expectations for it are the same as for other forms of investing.

The pandemic has shown that businesses cannot thrive in societies that are so unequal. Nor can businesses be bystanders in a society that is complicit in inequality.

That apart, COP26 has shown that the transition to a low-carbon economy provides a structural growth opportunity centred on a truly diverse range of businesses in areas such

Figure 3.2 **What is the approximate percentage of your pension plan's portfolio allocated to ESG as a whole and the social factor in particular?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"Tomorrow's world is summed up by one word: disruption."

"Social media is a powerful tool in exposing good and bad corporate behaviours."

The bar has been raised for asset managers. Fine words won't be enough.

as renewable energy, biotech, electric vehicles, energy efficiency and carbon capture.

The current state of progress is indicated by two separate sets of data points.

The first shows that around 128 investors were part of the *Net Zero Asset Managers Initiative* by July 2021 — up from just 30 in December 2020. The latest signatories mean $43 trillion in assets, or almost half of the total funds managed globally, are committed to a net zero emissions target.

Signatories have pledged to set interim emissions reduction targets across their investment portfolios for 2030. They will also work with clients who aim to reach net zero on their investments by 2050. Managers will be expected to have two other areas of responsibility as part of their implementation plan. Firstly, to report their carbon footprints based on the Task Force for Climate-Related Financial Disclosures (TCFD) framework. Second, to undertake meaningful engagement with the high CO_2 emitters to ensure that those who are part of the problem are also part of the solution.

Thus, the bar has been raised for asset managers. Fine words won't be enough.

The second set of data comes from the latest survey of the Global Sustainable Investing Alliance. It shows that sustainable investment assets grew 15% in the two-year period 2018–20 to $35.3 trillion, and now account for 36% of all professionally managed assets in the US, Canada, Japan and Australasia. The only exception was in Europe where the sustainable asset base contracted by $2 trillion between 2018 and 2020. This in anticipation of the introduction of antigreenwashing rules under the EU Sustainable Finance Disclosure Regulation (SFDR). This aims to minimise the relabelling of funds to overinflate their ESG credentials by mandating the parameters of what constitutes sustainable investment (see Insights).

In the process, managers are called upon to walk the fine line between prescriptive rules and adaptive learning – in the expectation that a better classification system will evolve over time as best practices emerge.

Interview quotes

"On greenwashing, asset managers will have to match fine words with actual deeds."

"SFDR will remain 'work in progress' before it evolves into a global best-practice standard."

Insights

SFDR: perfection can't be the enemy of progress

Our biggest concern with ESG investing is its inherent susceptibility to greenwashing, where asset managers repurpose their funds by relabelling them without changing the underlying investment process.

So, the European Union's Sustainable Finance Disclosure Regulation – effective from March 2021 – marks a milestone enabling us to make the correct ESG choices.

However, it suffers from constructive ambiguity: it gives asset managers some discretion in how the regulation is implemented whilst helping to improve the system.

In particular, this applies to Article 8: it covers the 'light green' products that have ESG characteristics via exclusionary screening, on top of other features. Such vagueness helps to define 'borderline' products. But, on the downside, it might perpetuate greenwashing until a robust approach emerges.

In contrast, products under article 9 of the regulation are classified as 'dark green'. They have a clear sustainable investment objective.

Given the data challenges in measuring ESG scores, regulation in this area will have to combine precision and vagueness in order to improve the accuracy of Article 8 through learning-by-doing.

We see these problems as part of an evolutionary process where things are not set in stone but are subject to regular review and improvement.

~ A French Pension plan

Hard evidence is needed on the impact of investments

The sustainable investing journey of many of our survey participants has followed the 'Spectrum of Capital' schematic developed by the *Impact Management Project* in 2017. The journey is defined by the changing mix of financial and nonfinancial goals, with their weights varying as the journey progresses.

The start of the journey was marked by the exclusion of 'sin' stocks: shares in companies associated with tobacco, weapons, the abuse of human rights and poor labour standards. However, such negative screening reduced the scope for diversification and also did not always materially change corporate behaviour.

ESG investing is about capitalising on opportunities as well as minimising risks.

So, some investors moved to the second stage: ESG integration. It involved picking companies with best-in-class high and/or rising ESG scores, backed by shareholder engagement via voting at the AGM and year-round dialogue.

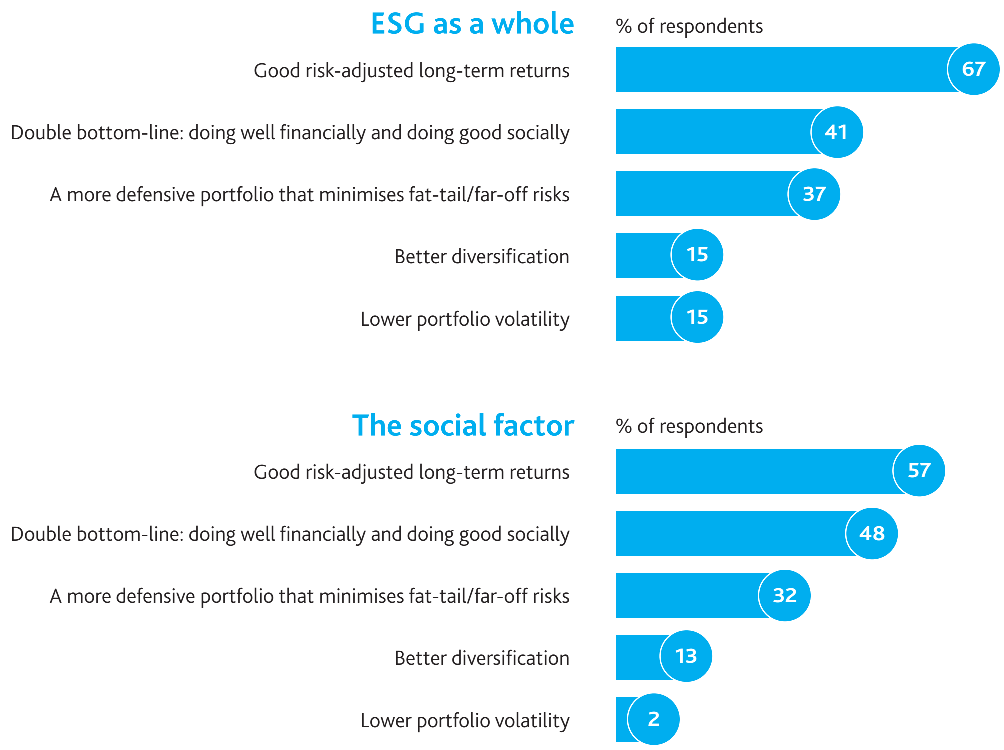
The third stage of the journey is impact investing. It involves targeting measurable financial, environmental and social outcomes associated with the Sustainable Development Goals.

Thus, the sustainability journey may be described by a continuum with three shades of green: light (exclusion), medium (ESG integration) and dark (impact investing to deliver SDGs).

The majority of our survey respondents are at the second stage, where the primary target is good risk-adjusted returns (Figure 3.3). This is true of ESG investing as a whole as well as social-related investing in particular.

The second widely cited target is a double bottom line in both cases, followed by a defensive portfolio that minimises fat-tail/far-off risks. The upshot is clear: ESG investing

Figure 3.3 What benefits do you expect your asset manager to deliver from your investments?



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"The biggest polluters have the greatest capacity for improvement. It is essential to engage with them."

"The proxy voting industry has a vital role to play, instead of box ticking. It needs more transparency and accountability."

is about capitalising on opportunities, minimising risks and making quantifiable progress towards a sustainable planet.

However, an important caveat came through repeatedly in our post-survey interviews with pension plans. Whereas they were content with the performance of their funds before and after the market crash in March 2020, they are unclear about whether their investments are actually having measurable impacts on the separate areas of environment, governance and social concerns.

In their role as agents of change, pension plans are becoming over-demanding of information.

In their role as agents of change, pension plans are becoming over-demanding of information from two principal stakeholders in the investment value chain: asset managers and investee companies.

From asset managers, they want to know who sets the ESG standards and who validates them. The main concern here is that whereas conventional credit rating agencies are now regulated by various governments, ESG data providers are pretty much left to their own devices, with no external checks and balances. The result is that there is no common global consensus on how ESG outcomes should be defined and measured. It's a hotch-potch with little consistency across markets and metrics. Often, different providers assign polar opposite scores to the same company.

From asset managers, pension plans also want to know the quality and quantity of the resources dedicated to their engagement with the investee companies. In particular, pension plans want to know how the activist role is performed, and what the outcomes are (see Insights).

For investee companies, pension plans want to know what their business vision is, how ESG features in it, which strategies are being implemented to convert vision into reality, what metrics are used to assess progress and what incentive structures are used to promote the ESG agenda. This is what their 'social licence to operate' means in practice.

Overall, our survey respondents want to progress towards impact investing. But they want to be assured that their investments make a positive difference to society and the health of the planet.

Interview quotes

"Nuclear power is classified as 'green' in France and 'dirty' in Germany."

"We need to know the thinking inside our funds as we advance beyond ESG."

Insights

Engagement is no longer a box-ticking exercise

It is vital for us to understand the sustainability profile of our investee companies as a key measure of risk and opportunity. The reason is that the negative externalities they create are now being passed back onto them in the form of costs, social pressures and governmental intervention. Examples include sugar taxes, carbon prices and minimum wage legislation. These factors are spreading in Western economies, raising corporate costs to compensate for externalities.

The key instrument used in integrating ESG into our investment process is active company engagement that drives change. We expect our asset managers to consistently vote against anti-ESG policies at AGMs, demand tangible outcomes and deliver transparent reporting. We also expect them to work in collaboration with global networks, since individual managers typically tend to hold a small share of a company's stock.

In the past, we relied on an exclusionary approach that screened out 'sin' stocks, only to find that it did not deliver the necessary changes; nor did it capitalise on opportunities as societies developed zero tolerance to negative externalities. At best, exclusion made our portfolio more defensive by reducing risk.

Stewardship is about delivering tangible impacts by acting as agents of change. Hence, we need a clear line of sight between our investments on the one hand and their real-life impacts on the other.

Stewardship offers a better model of capitalism with its focus on purpose, inclusion, accountability and sustainability when managing other people's money. It also re-emphasises the core purpose of financial markets in allocating resources to a productive use.

~ A Dutch Pension plan

Early evidence on ESG investing is encouraging

TV footage of recent extreme weather events vividly brought home the reality of climate change.

For long, climate change sat in the realm of uncertainty, as the available scenarios on global warming varied widely. However, as argued previously, 2015 saw a tipping point with the worldwide adoption of SDGs and the Paris Agreement. They gave greater definition to climate risks. ESG investing took off in earnest, favouring the environmental and governance pillars initially and the social pillar latterly.

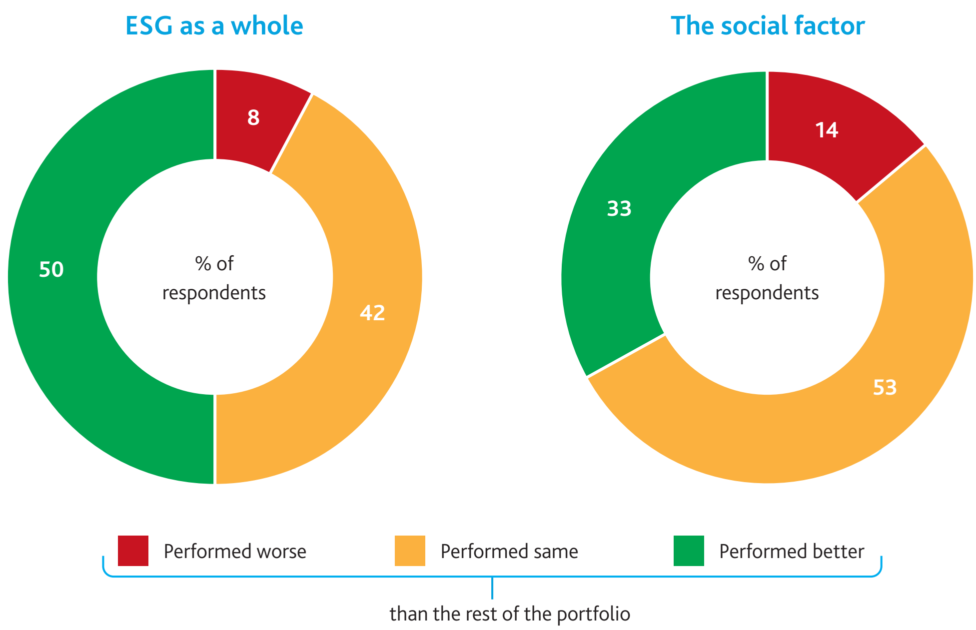
However, naysayers argued that the true test of ESG investing will not be the scale of inflows when markets are rising due to central bank largesse, but their resilience when the inevitable correction comes. Thus far, ESG has passed this acid test. On a relative basis, our respondents' ESG assets suffered far less than their non-ESG assets in the crash of March 2020. Just as importantly, their recovery has been impressive (Figure 3.4). For ESG as a whole, 50% report that the funds did better than the rest of the portfolio and 8% report that they performed worse than the rest of the portfolio. The corresponding figures for the social factor are 33% and 14%.

As we saw in Figure 1.9 in the *Executive Summary*, the allocations to both these categories are likely to rise over the next three years. This is in the belief that ESG investing is migrating from the realm of uncertainty into the realm of risk.

TV footage of various recent extreme weather events – from devastating bush fires in Australia and California, to hurricanes in the US, to heatwaves and severe rainfall in Europe and China, to severe floods in Japan – has vividly brought home the reality of climate change. At the *Earth Summit* in April 2021, most of the key nations – Canada, China, Japan, South Korea, the UK and the US, alongside the European Union – committed to adopting net zero targets. Lately, the political tempo has duly accelerated, as extreme weather events, such as flooding and wildfires, have become more frequent and severe.

For example, the US has pledged to double the money it will spend in helping developing economies to tackle climate change. For its part, China has now agreed to stop building new coal-fired power projects abroad.

Figure 3.4 **Which of the following statements applies to your allocation since the market dislocation in March 2020?**



Source: Amundi Asset Management/CREATE-Research Survey 2021

Interview quotes

"The unknowns of climate change are no longer suppressed by the unknowables. Risks and opportunities are getting clearer by the day."

"Technology and social media now provide actionable narratives on future threats and opportunities."

The regulatory tempo has accelerated.

As a result, there are concerns that the ESG market could become a victim of its own success as it matures rapidly. For example, a recent study from EDHEC Business School, *Chasing the ESG Factor*, found that the relationship between ESG and performance may soon turn negative as inflows mount. The recent outperformance of over 1 percentage point of the environment and social pillars is showing signs of faltering.

In contrast, another recent study by MSCI, *Foundations of Climate Investing*, found that climate risks are only priced in by markets in Europe. In the US and emerging markets, significant mispricing is still common. The catch-up process is slow and alpha opportunities are likely to prevail for the foreseeable future. There are no signs of the stocks of high-rated ESG companies peaking. If anything, they resemble high-quality stocks that have long delivered more by losing less over the market cycle.

Our survey respondents take a more pragmatic view: their ESG investing is not just about harvesting alpha opportunities.

It is also an outward manifestation of the changes in the ecosystem of financial markets, as societies develop zero tolerance for the negative and uncompensated effects imposed upon them by the corporate sector since the dawn of industrialisation.

Hence, cultural and legal norms around ESG will become so ingrained in the market's blueprint that they will, over time, become a standard part of good business practice rather than being a specific collection of metrics tracked by investors of all stripes.

Interview quotes

"Social alpha has a long way to go before reaching the point of diminishing returns."

"ESG is reshaping the ecosystem of financial markets as societies develop zero tolerance for negative externalities."

Insights

The awakening giant

China's annual emissions were less than a quarter of all OECD country emissions in 1990. Since then, they have trebled and they now exceed the total from all OECD countries. Last year, the Chinese government set a target for carbon neutrality by 2060. The nationwide roll-out of its emissions-trading scheme this year is unprecedented in scale and ambition.

Forty years of breakneck industrialisation has damaged the natural environment. So, it now tops the policy agenda in the most recent five-year plan. However, the Covid-19 crisis has delayed the mandating of compulsory ESG reporting. Even so, as of September 2020, a pilot scheme has been in place in 13 cities and further roll-out is anticipated as normality returns. The first green finance legislation in China was launched in March 2021, when Shenzhen's regulators passed a law requiring local financial institutions to disclose information relating to their environmental impact.

On the governance side, too, some progress is evident. With the global rise in passive investing, large listed companies are seeking to bridge their governance gaps to qualify for entry into major EM indexes. Hitherto, the checks and balances between a company's board, its management and its shareholders fell short of what pension investors in the West regard as acceptable. For their part, index providers are increasingly demanding accessibility, efficiency and transparency of capital markets in emerging economies, backed by a robust regulatory framework.

In China, all the moving parts in the sustainability revolution are in place. Progress may be slow but the direction of travel is clear.

~ A Hong Kong Pension plan

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- *Competing through skills (1999)*
- *Leading People (1996)*

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[1] Source: IPE "Top 500 Asset Managers" published in June 2021, based on assets under management as at 31 December 2020

[2] Boston, Dublin, London, Milan, Paris and Tokyo

[3] Amundi data as at 30/06/2021

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