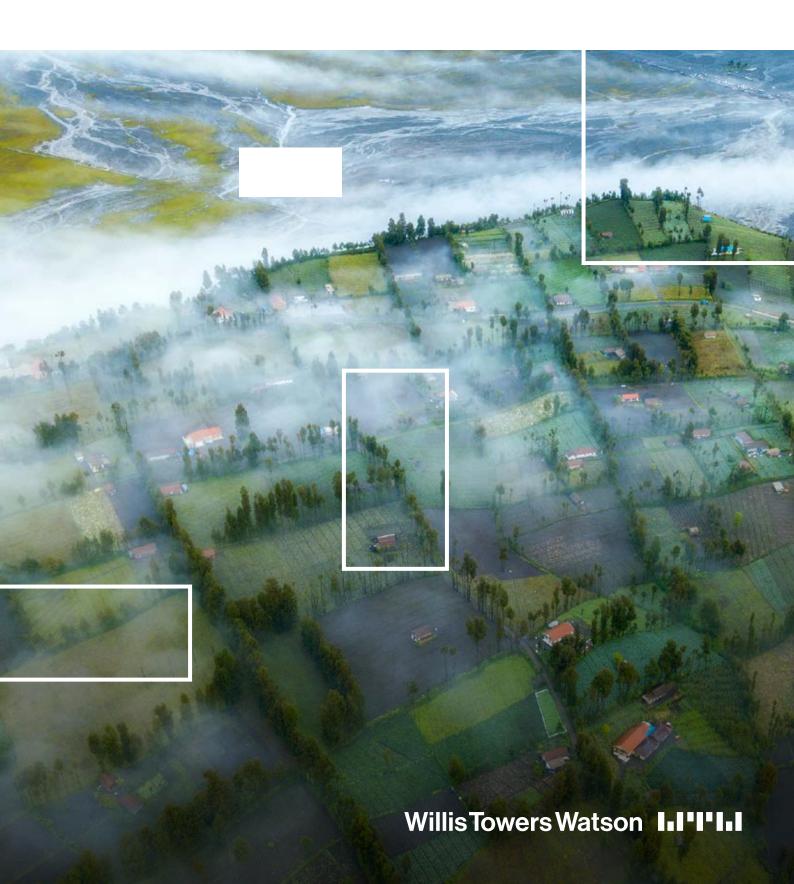
Outlook 2021

The portfolio implications of 20/20 vision



2020 is a year few of us will miss. However, as investors we can learn and adapt from the bad times and the good.

What follows in this "Outlook 2021" report is what we think investors should prioritise in portfolios during 2021. To be clear, our thinking extends beyond the short-term 2021 outlook - we ask ourselves, "what can and should be done in portfolios now to help maximise the chances of near and long-term success?".

Seeking 20/20 vision

"20/20 vision" implies that what should be seen when looking ahead, can be seen clearly. It also implies that vision is balanced. The investment industry's "vision" was sorely tested during 2020, which contained (we hope) a once-in-a-generation shock to health, wellbeing and economies. The portfolio prescription

we have long emphasised and which we highlighted in our Outlook 2020 report - diversity with downside protection fared well in these challenging times (see Exhibit 1). What can we as an industry learn from 2020 to ensure our investment vision from here is clear and balanced?

The investment industry is constantly evolving to cope with a world that is complex and transforming rapidly. We think the events of 2020 will accelerate that evolution, in much the same way as it has accelerated online retail or working from home. Figure 1 outlines our take on where the investment industry has come from pre 2020 and where we think 20/20 vision should, and will, take it in the future. This includes implications for the industry which are beyond the scope of this report, so we do not discuss all of these here, but we will address them in future reports and webinars.

Figure 1: New ways to work, think and invest

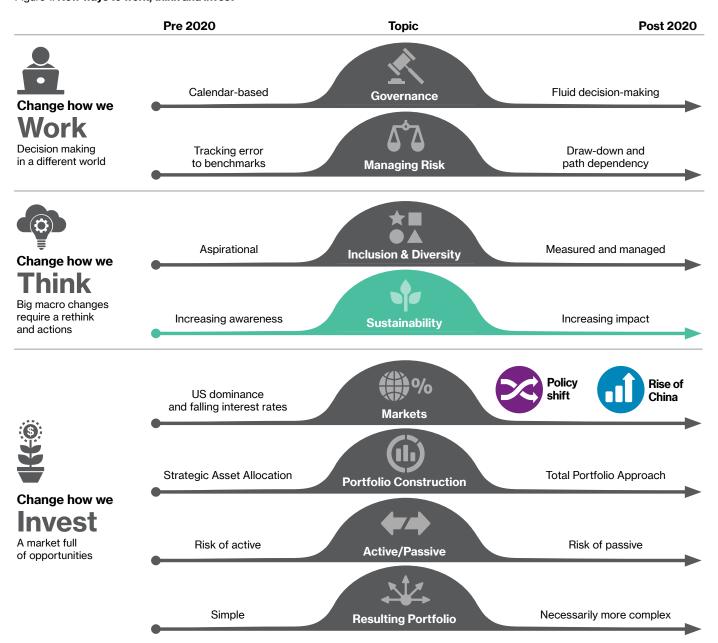
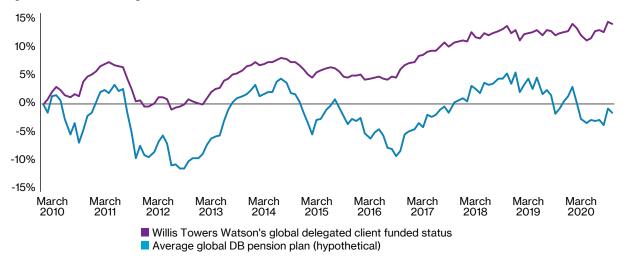


Exhibit 1: How did our portfolios perform in 2020?

- The prescription set out in our Outlook 2020, diversity with downside protection, did well over 2020. It is proxied below with our average defined benefit (DB) delegated portfolios' funded status experience over the short and long term*.
- That our highly-diverse, risk-managed portfolios fared well is not a surprise. Against equivalent risk equity/bond portfolios, diverse portfolios will do well in downside environments (particularly if well risk-managed) and good ones should be able to broadly keep pace in upside environments. The risk of declining bond yields - such as those experienced
- over 2020 was one we have long considered to be unrewarded, causing us to hedge liability interest rate risk more fully than the average DB scheme.
- Our approach provides a much more comfortable ride for all investors and, crucially, a less existentially threatening one for pathway-dependent investors. Is this prescription of diversity with careful risk management still the best answer? Yes, but like anything it needs to evolve. It is no longer enough to just diversify risk premia, we need to think carefully about the risks we are exposed to and the instruments available to manage them.

Figure 2: Cumulative change in funded status over time



	Cun	nulative funded	FS volatility	Efficiency		
	1 year	3 year	5 year	Since inception	Since inception	Since inception
Willis Towers Watson's global delegated client funded status	1.6%	3.2%	9.5%	14.2%	3.5%	4.0
Average global DB pension plan (hypothetical)	-0.8%	-1.9%	2.0%	-1.6%	6.9%	-0.2
Over/under	2.4%	5.1%	7.5%	15.7%	-3.4%	

As of September 30, 2020. Inception date: December 31, 2009

Composites are averages of changes in UK and US markets respectively, with weights equal to the number of delegated clients in that market at that time. UK track record includes monthly data points for entire sample period. US track records includes quarterly data points for 2012-2016 and monthly data points thereafter. Delegated track record methodology and disclaimer in the appendix and is an integral part of this presentation.

Volatility is calculated as the standard deviation of quarterly funded status changes.

Efficiency is a measure of change in funded status per unit of volatility and is calculated as cumulative change in funded status divided by volatility.

^{*}Please note that investment returns can fall as well as rise and that past performance is not a guide to future investment returns.

The high-level macroeconomic outlook underlying this report is:

- The economic outlook is split between a period of recovery and subsequent growth. Policy stimulus, in particular the ability to combine extremely easy monetary policy with highly reactive and historically sizeable fiscal stimulus, will determine how long the recovery phase lasts. It will also influence subsequent growth rates, although what ultimately drives this growth (productivity) is subject to a number of complex and overlapping factors.
- This new policy regime is likely to dominate the outcomes for the developed world in aggregate, with important differences between countries. In turn, this will impact market pricing and prospective returns. It also suggests less policy emphasis, relative to the past few decades, will be placed on controlling inflation and more on maximising employment, growth, and possibly the inclusiveness of both.
- Market pricing has generally responded to this policy regime but there remain profound implications for portfolio strategy.

With this outlook in mind, what are the key market-related themes we think investors should focus on to position themselves for success during 2021 and beyond?

We have narrowed down a potentially long list by assessing the risks and opportunities that are both highly **material** for current portfolio allocations and relatively more **certain**. From a macroeconomic perspective, we think three themes stand out:

- Policy shifts: The post-COVID policy regime has shifted in important ways. Whilst much of this shift was evident before 2020, the policy response to the pandemic has accelerated it. This has important implications for return pathways and downside risk management in particular.
- The rise of China: China's financial system continues to open, which has material and near certain implications for the sources of diversity available to investors and how downside risk can be managed.
- 3. Sustainability: This encompasses three important topics:
 - a. Climate: we believe 2021 will prove to be a significant year for the climate transition, with the 26th UN Climate Change Conference of the Parties (COP26) due to take place in November.
 - b. Inclusive growth: At the same time, the moral imperative to include diverse perspectives, races and life experiences in all spheres of society, including the professional, has been highlighted in 2020. It is also a financial imperative. Our view and hope is that inclusion will become a material influence on investors' choices.
 - c. Stewardship: in order to manage these imperatives, the need for better practices by governments, regulators, corporates, asset managers, and asset owners is clear and growing.



Portfolio priorities for 2021

Figure 3 discusses the practical priorities that these themes lead us towards, all of which are elements of the "bigger picture" outlined in Figure 1. Below we explore each of these portfolio priorities in more detail, some of which are linked to more than one of our key themes.

We suggest investors focus on eight key priorities in 2021.

1. Position for stronger near-term asset returns and lower long-term returns

The policy regime we expect could potentially lead to strong returns in the next few years. This is partly driven by economic recovery driving a rebound in actual and expected cashflows from risky assets. Most significantly, it is driven by the likelihood that continued low bond yields and easy monetary policy will drive valuations higher and risk premia lower.

We believe strong risky asset returns that are not driven by strong growth are "borrowed from the future" because risk premia and bond yields can only fall so far. The policy environment we expect could create good long term growth conditions and good risky asset returns as well, but the immediate and more certain effect is to compress risk premia. So, investors must resolve the tension between

near to medium term returns which could still be strong (see Exhibit 2 for a discussion of this) and long term returns, which could subsequently be low, especially if bond yields start to rise. A sustained high return outcome over the long term would be critically dependent on sustained high economic growth and high growth in corporate profits.

Dynamic investors should think carefully about being too conservatively positioned based on 10-year return expectations, which may be "front loaded" in nature.

If it is consistent with your beliefs and governance model, we think there is scope for being modestly overweight risk going into 2021 (see Exhibit 3 for a discussion of where to dynamically add risk).

Any overweighting of risk presumes your starting level of risk is right-sized. Given the prospects for lower long-term returns, investors focused on the long-term should reconsider their need for return. Do you "need" the same level of return to meet your organisational or end savers' objectives? We think a Total Portfolio Approach offers a practical way to address this question – see Exhibit 4).

Figure 3: Portfolio priorities for 2021

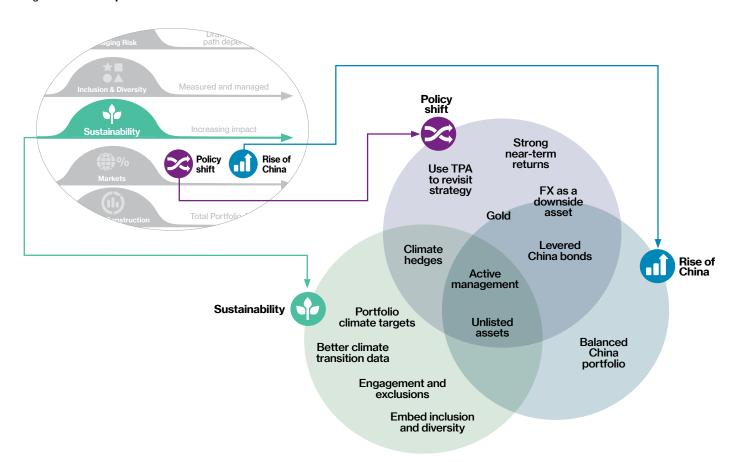


Exhibit 2: Understanding the "valuation tension"

- The valuations of many risky assets, notably equities, look unappealing relative to history. For example, Figure 4 shows Robert Shiller's "cyclically adjusted price earnings" (CAPE) ratio for the S&P 500, which divides current prices by 10-year average earnings. This is at elevated levels.
- How does this marry with our suggestion that dynamic investors should modestly overweight risk? There is a reason why Robert Shiller includes long-term interest rates on his chart of the CAPE. The long-term value of an equity (and an equity index) is the discounted value of the cashflows it provides - if the discount rate falls because bond vields or risk premia fall, the fair value for a given level of earnings increases. This is another way of saying one cannot assess equity values in isolation the values of other assets are also important.
- This is interrogated in Figure 5 which takes the inverse of the CAPE - the long-term earnings yield offered by equities - and nets off the 10-year bond yield. This is a measure of the risk premium on offer from equities and shows that, relative to bonds, equity valuations are quite reasonable.
- This valuation tension historically high absolute valuations but reasonable valuations relative to bonds - extends outside equities to other risk assets such as real estate.
- In the policy environment we foresee, there is scope for these risk premia to contract further as the impact of continued monetary stimulus keeps bond yields low and pushes investors out along the risk curve. This situation looks more likely than not, provided inflationary pressures remain contained and policy stays accommodative.

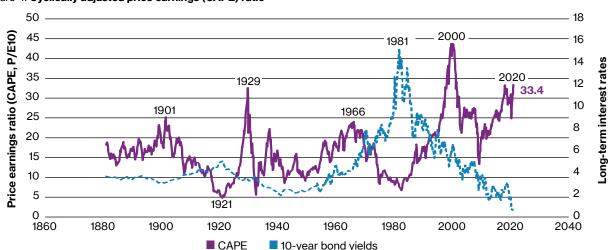


Figure 4: Cyclically adjusted price earnings (CAPE) ratio

Source: Robert Shiller, Yale School of Management, "U.S. Stock Markets 1871-Present and CAPE Ratio"

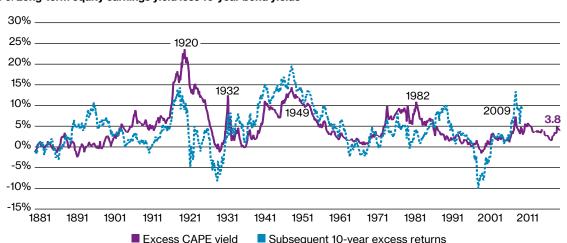


Figure 5: Long-term equity earnings yield less 10-year bond yields

Source: Robert Shiller, Yale School of Management, "U.S. Stock Markets 1871-Present and CAPE Ratio"

Exhibit 3: Where to dynamically add risk

We emphasise that our view is to be modestly overweight risk based on market pricing at the end of 2020. This pricing can change quickly and our view might be wrong. Downside risks – particularly around the degree of long-term economic damage and the potential for virus mutations – are still present.

At the time of writing we suggest the following avenues to implement this modest risk increase:

- 1. Use up spare capital/increase capital efficiency. Dynamically increasing risk implies making sure all your capital is put to work. For defined benefit investors this means ensuring your liability-driven investment portfolio is efficiently structured by using appropriate long-duration and/or leveraged exposure to free up capital. For defined contribution investors consider if lower-returning assets (e.g. traditional corporate bonds) can be redeployed into a mixture of equities and high-quality bonds to modestly increase risk whilst retaining capital preservation.
- 2. Global equity markets are the clearest way to increase risk. As discussed below, we believe actively managed exposure is attractive at the current time.
- 3. Listed real assets offer potential strategic advantages for many investors as liquid diversifiers of long-term equity risk. If structured through active or smart mandates, they also provide a combination of: procyclical exposure with valuations likely

- over-reflecting future cashflow risks (e.g., REITs) and; comparatively defensive cashflows at attractive yields (e.g., listed core infrastructure).
- 4. If volatility declines from relatively elevated levels, call options may offer an attractive means of accessing strong risky asset returns in a capital-efficient manner. The governance challenges and complexity are considerable but solutions exist.

The following are exposures which we find difficult to build conviction in from a top-down perspective:

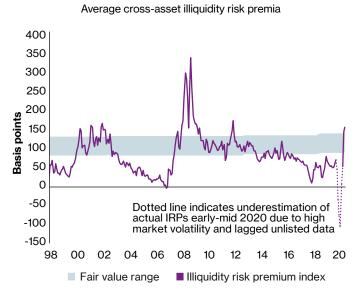
- The premium for value investments is currently high, which acts as a tailwind for returns, and justifies higher allocations in smart beta portfolios, for example. But, in the economic environment we foresee, the catalyst for significant outperformance of value stocks/styles is not clear, given how valuable high and growing cashflows are in a low yield world.
- EM assets, in general, offer reasonable value in aggregate and are more diverse than DM markets in a fundamental sense. We find it hard to build conviction in a dynamic overweight to EM markets in aggregate and there is increasingly less practical use in differentiating between EM and DM from a portfolio construction perspective. If your portfolio is biased towards domestic or developed markets, now is a good time to consider the balance of EM and DM exposures, including China.

Exhibit 4: The importance of a Total Portfolio Approach

- We think the best way for asset owners to cope with a complex and adaptive world, which places organisational effectiveness and meeting end savers' needs at its core, is to adopt a Total Portfolio Approach¹ (TPA). The key features of TPA is that it starts with clearly specified investment goals, there is competition for capital among all investment opportunities rather than filling asset class buckets, and it is dynamic.
- This is a deep and broad topic, on which we are happy to provide more practical detail. But there are two key reasons (among many) why TPA is even more useful now practically than it normally is.
- First, it provides a coherent and practical way for investors to grapple with a low return world. The long-term returns on offer from traditional market exposure (in TPA measured by the reference portfolio) may be low long term. Thinking about the response

- in TPA terms gives an understanding of how much of your required return you can get from the market and how much return you need to source from elsewhere, e.g., more active risk, using leverage to take more market risk, or expanding governance to generate more return.
- Second, TPA provides a clear way to integrate sustainability factors, which include climate and inclusion & diversity, into the asset allocation decision. As discussed in the sustainability section (and in Exhibit 5), TPA's focus on competition for capital has led us to integrate sustainability into portfolio construction, alongside other measures of portfolio quality. This allows an investment's sustainability risk and opportunity attributes to compete with other assets' attributes in a coherent and systematic way.

Figure 6: Unlisted and less liquid assets offer selectively attractive risk premia



Source: Willis Towers Watson

500 US renewable infra debt 450 UK ground rents 400 lliquidity risk premium, bps 350 **UK long lease** UK real estate 300 Euro loans Furo 250 UK sn RE debt Canadian real estate US direct lending 200 Euro sn RE debt US real estate US Sub IG 150 100 IIS IG UK & Euro sn infra debt US sn RE debt 50

Specific asset illiquidity risk premia

2. Revisit unlisted asset exposure

Some unlisted assets offer relatively elevated risk premia (see *Figure 6* for Willis Towers Watson's Illiquidity Risk Premium Index). Care and selectivity is required because, in some cases, these high risk premia simply reflect high risk. But, for those able to be selective and who have "unused" illiquidity budget to spend, now is an attractive time to commit capital more aggressively to unlisted opportunities.

From a near-term perspective, we believe unlisted assets' risk premia are one of the last to be impacted by waves of policy stimulus, but they are ultimately impacted. We would highlight:

- Distressed lending/rescue finance as explicit government support and implicit guarantees are removed in the coming years, sound businesses are likely to come under stress and require capital. Long-term investors can provide that capital;
- Real estate some sectors (particularly retail) face a tough outlook but others (student housing, residential, and healthcare for example) have rosier prospects;
- In a world of low bond yields, the income offered by many unlisted assets is very valuable and arguably offers a more "certain" return profile. This is particularly true of secure income assets.

From a longer-term perspective, private markets may provide one of the more tractable ways to gain exposure to climate transition opportunities. Our research teams are finding attractive ideas across the private markets

opportunity set, from equity in green agriculture projects to mezzanine infrastructure debt lending against renewable energy assets.

10

Indicative holding period, yrs

15

20

3. Build a balanced exposure to China

5

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As we have discussed in previous Outlooks, Chinese assets continue to be under-represented in many global investors' portfolios relative to the diversity and return potential these assets offer. For many (including us), the first step was to allocate to onshore China A-share equities. Improvements in fixed income market infrastructure means it is now possible for foreign investors to access China bonds and build an economically balanced allocation to Chinese assets (i.e., one not wholly reliant on domestic growth and equity pricing)².

For many investors, China might conceptually fall into the "emerging market" opportunity set. We would challenge this on the grounds that China government bonds exhibit some of the attributes investors look for in developed market exposures: high quality, policy certainty, low credit risk (because domestic investors are the main holders), and increasingly higher liquidity. Therefore, we suggest that China bonds are more comparable to other high quality developed government bond exposures in passive mandates. If China bonds are excluded from benchmarks they could be "topped up" via a standalone China bond allocation. Note also the discussion below regarding the explicit use of levered China bond exposure to hedge growth portfolio downside risk.

4. Maintain but evolve downside hedges

The policy shift we have experienced in 2020, and our expectation that it will persist, raises important questions about the role of nominal assets in portfolios and the implications for downside risk management. In short, downside risks are evolving and the assets that hedge them are too:

- For defined benefit pension fund investors, bonds and their derivatives continue to serve a vital role in helping control liability risk - this has not changed. If the yield on offer is too low and it is cashflow-matching rather than mark-to-market hedging which matters, secure income assets may offer a material yield pick-up;
- However, allocations to most developed world sovereign bonds no longer offer material protection against downside shocks to growth portfolios. Yields simply cannot fall enough given their starting point and are unlikely to move swiftly higher. This is impactful for longer term investors such as endowments and accumulation-stage defined contribution funds;
- In fact, nominal bonds that are not held alongside liability exposures might increase risk at the margin. For the first time in many decades we believe investors need to think about a source of downside risk being unexpectedly high and disruptive inflation. This is not likely to be an issue in the near term because, as economies recover from the pandemic, disinflationary risks are more likely to dominate. But when economies have recovered, inflationary forces may start to build.

How do we protect growth portfolios against downside risks in a world of low bond yields and two-tailed inflation risks?

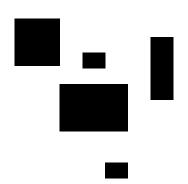
i) Look elsewhere for downside protection:

 China bonds as a potential downside hedge: Our view is that as well as being diversifying for most portfolios and enabling an economically-balanced China exposure to be built, China bonds also offer attractive downside protection characteristics, especially if held on a leveraged basis. The "cost of carry" for this downside hedge should be low and may even be negative if China bond risk premia contract as foreign capital inflows rise. China deserves our focus because of the size of its market but other levered bond exposures in higher quality countries are also worth considering.

- Diversified allocations to foreign exchange as a downside hedge: Investors with procyclical base currencies (e.g., GBP or AUD) have for some time left part of their FX exposure unhedged as a means of hedging downside risk - for these investors the USD (for example) has traditionally rallied as equities have fallen. In a world of scarce downside protection, we believe all investors can leverage this strategy including those with less cyclical base currencies like the USD or EUR - by holding more of a basket of safe currencies than they otherwise would have done. Selectivity is required as starting valuations matter to the "cost" of this hedge. Despite the likely gradual erosion of the USD as the world's reserve currency, the size of USD debt markets mean the USD should remain prominent in this basket. The EUR, JPY and increasingly CNY exposure should also be considered.
- For some investors, the judicious use of equity put options may be appealing, particularly if volatility declines sharply from here. Again, the governance hurdles are significant but solutions are available.

ii) Monitor and consider mitigating inflation risks:

- Inflation-linked bond yields can move lower from here if nominal rates remain pinned and inflation expectations increase. However, inflation expectations are still vulnerable to disinflationary shocks in the near term, so we think the appropriate immediate action is to systematically monitor inflation outcomes and prospects (see point 8, page 12).
- In a world of low interest rates and persistently negative real interest rates, zero-yielding gold (or gold-related beta) has a lower opportunity cost as a hedge against shocks to growth from unexpected inflation and, in more extreme outcomes, acts as a store of value against any impacts from monetary debasement. We believe cryptocurrencies deserve an increasing amount of attention for similar reasons, although there remain challenges around volatility and market structure.



5. Integrate climate risks and opportunities into portfolio construction

In our view, how **climate risks and opportunities** are reflected in portfolios remains the single biggest long-term investment challenge investors have yet to address.

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A climate transition is happening now, is occurring at scale, and the pace is increasing.

Like many investors, we have been working hard to reflect this change across our entire investment process and highlight the following as key practical issues investors should deal with:

Data: what gets measured well gets managed well.

There has been a big push on measuring climate-related risk and opportunity across the finance industry and good progress has been made. Nevertheless, as an industry we must continue to better integrate top-down/macro data (such as emissions) with bottom-up/micro data (on asset exposures, supply chains, elasticities of supply and demand, regulatory models, etc), to arrive at better measures of climate-related financial value at risk. Figure 7 offers more thoughts on this topic. We must be wary of the pitfall of equating emissions of an asset class with financial risk - emissions are part of the picture but not enough on their own. We are working hard to provide the industry with the better data, metrics and analytics that are required through our Climate Quantified³ initiative and the frameworks to collaborate and improve our collective behaviour4 on this issue.

Better data and analytics enable:

- i.) Sustainability factors to be embedded in asset allocation decisions. Aggregating micro climate and Environmental, Social and Governance (ESG) data up to the market or asset class level means it can be used to interrogate asset allocation and portfolio construction decisions. Within our delegated portfolios, we seek to quantify the sustainability-related risks and opportunities of a portfolio change in the same way we do for financial efficiency, diversity, liquidity, complexity, and costs (see Exhibit 5).
- ii.) More explicit portfolio tilting towards assets less exposed to climate risk and/or more exposed to climate opportunities compared to what is discounted in their prices. We believe better benchmarks and fund solutions can be created to capture this effect.
- Move towards a 3D investing⁵ model. Investing has always captured risk and return but there is a third dimension: impact. Impact objectives might be out of reach for some asset owners but establishing a total portfolio climate target is a practical way to make progress. Adopting a carbon journey plan for decarbonising a portfolio is one element of this. Allocating capital to climate change solutions and opportunities is another. Both have strong "3D" credentials: they control risk; emphasise returns; and offer positive impact.

Figure 7: Robust quantification must address several issues that are central to climate transition risk

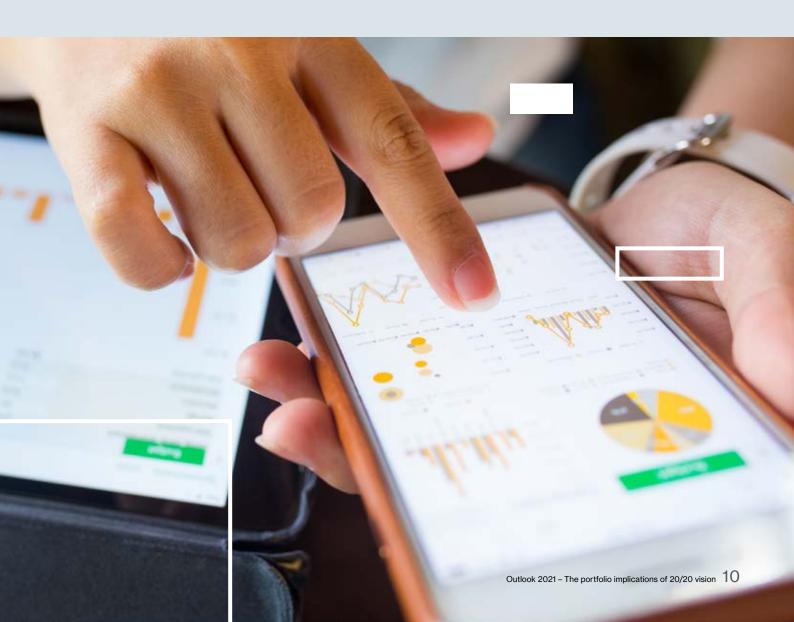
Characteristics of transition risk	Implications for measuring and managing risks				
Risks materialise at the micro/asset or local level but are driven by macro forces	Modelling and measuring risk require a hybrid approach to measure how macro changes will affect the value and financial viability of individual assets in a real world way				
Risks are often driven by non-linear and structural or long-term change	Given uncertainty, analysis needs to incorporate multiple scenarios to evaluate the largest realistic risks and paths that have a material impact on businesses/assets				
Risks depend on the timing and pathway(s) to a lower carbon economy	The likelihood of each outcome affects the scale of risk Scenarios need to measure the impact on demand/volumes (e.g. oil, steel, automobiles), costs, and margins, i.e., the metrics that shape the value of assets or resources				
Risks can be transferred between stakeholders and can ripple through the economy	Valuation needs to map the flows of the risk between different owners and through the economy to accurately measure risk				

Exhibit 5: Integrating sustainability into portfolio construction

There are many ways of doing this but our journey involved taking two steps:

- Step 1: build a sustainability scorecard. This collects ESG data on all elements of the portfolio benchmark, develops proxies for exposures where data is unavailable, and aggregates them to the asset class and portfolio level. Doing so provides an understanding of the source of ESG-related risks and opportunities in portfolios, how those exposures compare to the opportunity set/benchmark, and guides risk mitigation and value creation solutions. In our case, this step also made it clear that climate should be given priority amongst ESG-related issues.
- Step 2: integrate this scorecard into portfolio construction so that the sustainability characteristics of an asset class can be weighed against other elements of portfolio quality. In our case, we use different "lenses" to weigh elements of portfolio quality risk/return, diversity, complexity, liquidity and cost are some of them. The sustainability scorecard forms the basis of a Sustainable Investment lens which enables us to systematically integrate sustainability into our asset allocation decisions so that opportunities compete for capital in a holistic manner. We believe this framework is a much more robust approach to incorporating sustainability-related risks and opportunities into financial and portfolio decision-making, rather than simply decarbonising a portfolio, for example.

More information is available on request.



- Engagement and exclusions: In our view, a combination of both engagement and exclusion is the best way to maximise climate opportunity per unit risk:
 - Engagement a subset of effective stewardship requires governance and knowledge. How are your managers embedding ESG into their decisions? How are they voting on your behalf? What is the most effective way to engage with managers and portfolio companies to better reflect your climate beliefs? These questions impact all phases of the investment process but, fundamentally, engagement can significantly move the dial and it is our belief that this is where investors should start:
 - Exclusions. In some instances, engagement cannot adequately manage the financial and other risks embedded in portfolio exposures. Our experience is that it is easiest to build the case for exclusions on an impact basis, however, many investors (e.g., in the US) are required to form a financial case. This financial case is important in all aspects of risk management but a finance-first exclusions process is especially hard to implement. It requires good data and analytics on the impact of climate or ESG risks on portfolio companies and, crucially, monitoring to ensure the financial case is still sufficiently robust as prices shift.
- Climate hedging: Climate is the archetypal systemic risk, so can't be hedged at the system level. But, as individual investors, we are used to taking risk in one part of the portfolio and hedging the poorly rewarded risks in another part of the portfolio. From a financial perspective, climate risk does not have to be any different - assets that have high exposure to climate-related financial risks (but might have other portfolio benefits) could be "hedged" by buying assets that offer exposure to climate-related opportunities or shorting other assets that have exposure to climate-related risks. For example, with better data and experience, listed companies that are exposed to climate risk can be identified and aggregated into smart betas. Additionally, holdings in unlisted assets in sectors with zero or negative emissions, e.g., renewables or forestry, can also be increased, subject to valuations.

6. Embedding inclusion and diversity in all levels of portfolio decision making

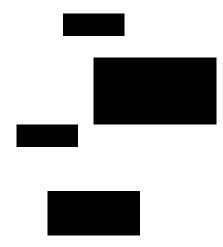
For us, the financial case for embedding inclusion and diversity into the investment lifecycle - from corporate boards, through to portfolio management teams, and asset owner decision-making bodies - is as clear as its prominence in public discourse. Simply put, investment teams with greater cognitive diversity tend to generate better excess returns6.

Cognitive diversity is borne of different life experiences, which themselves emanate from gender, race, and socioeconomic diversity.

In our research (led by our Thinking Ahead Institute colleagues⁷), incorporating and including these diverse experiences builds a stronger culture, which for portfolio managers and asset owners in particular is a vital intangible asset to build.

Specific actions asset owners, including ourselves, can take include:

- 1. Examining and expanding the diversity of decision-making bodies;
- 2. Ensuring adequate engagement activity is undertaken with portfolio companies so that the asset owner voice is heard at the corporate level;
- 3. Measuring the diversity of decision makers (not just ownership) in manager line-ups and;
- 4. Reconsidering how managers are selected and assessed, e.g., a long track record has limited predictive power and will bias us towards certain races and genders prominent in the industry.



7. Increase active management

Skilled active management offers growing value for money in our view. It is not easy finding skill and the right governance needs to be dedicated to it. But, the disruption from the policy regime shift, differential COVID impacts across sectors and countries, and the concentration of the US equity market and consequent regulatory risks leaves a cyclically fertile ground for alpha.

The climate transition is a big challenge for investors to overcome and slow-moving, cap-weighted passive exposures are ill-suited to meet it. We need better betas to help, but we should also use the skill of active managers to avoid risk and capture opportunities.

8www.willistowerswatson.com/en-GB/Solutions/services/equity-solutions

The fact that ESG has not been fully integrated into investment processes in the past means that ESG is likely not fully priced-in to assets now, leaving an alpha opportunity for those that do integrate it well in the future. Finding an equity approach that isn't benchmark constrained and fully embeds sustainability and stewardship is key - we think we have one8.

8. Monitor macro change

Finally, the nature of investing in a complex world is that change often happens slowly and then all at once. Our three themes (Policy shifts, rise of China and sustainability) are no different - it is uncertain when or how fast they will develop although we have selected them based on the view that they drive meaningful change within the next 5-10 years. A practical means of coping with this slow but uncertain change is by systematically monitoring those themes through thoughtfully-curated data. With this in mind we have developed three dashboards, which we will keep up to date and evolve over time on the website for this report.

Appendix

Figure 8: Global Funded Status

	December 2009 to December 2010	December 2010 to December 2011	December 2011 to December 2012	December 2012 to December 2013	December 2013 to December 2014	December 2014 to December 2015	December 2015 to December 2016	December 2016 to December 2017	December 2017 to December 2018	December 2018 to December 2019	December 2019 to September 2020
Willis Towers Watson's global delegated client funded status	5.7%	-6.2%	0.5%	7.5%	-2.2%	0.0%	2.3%	3.6%	0.1%	3.0%	-0.1%
Average Global DB Pension Plan (hypothetical)	0.3%	-9.7%	0.5%	12.3%	-6.7%	0.9%	-2.0%	4.9%	1.7%	0.9%	-4.7%
Relative (%) Willis Towers Watson	5.4%	3.5%	0.0%	-4.9%	4.5%	-0.9%	4.3%	-1.3%	-1.7%	2.1%	4.7%

Disclaimer – Delegated track record methodology and disclaimer U.S. Defined Benefit Plans

Please note that investment returns can fall as well as rise and that past performance is not a guide to future investment returns.

Composition
The performance data is an equal weighted composite of total cumulative funded status change of Towers Watson Investment Service's (TWIS) U.S. full plan delegated investment services (DIS) clients for the period presented and limitations below. The composite includes six clients at the outset and fifty-three at the end, with a total of sixty-three over the period. The composite includes all U.S. DIS clients where TWIS manage the entirety of their assets including U.S. DIS clients where there are constraints on TWIS investment decision making such as the level of liability hedging. It excludes client portfolios where TWIS mandate covers a smaller portion of the portfolio e.g., a single asset-class or return seeking assets only. seeking assets only.

Purpose
The composite cumulative funded status change can be used to give an indication of how investment using a more diversified and risk managed approach, as taken in our U.S. DIS client portfolios, compares to the estimated funded status progress of the average U.S. corporate pension plan based on information published for a number of companies via SEC Form 10-K and aggregated by Willis Towers Watson.

Limitations

Our clients have differing objectives, investment beliefs, valuation methodology and constraints which they place upon us. All of these will feed into the exact portfolio we construct, and therefore the performance that is achieved. However, we believe that such client limitation have not restricted our investment strategy. Additional governance and operational benefits of investing through our DIS service are not captured in this composite. We have not adjusted for differences in cash flows, such as contributions or settlements, between our U.S. DIS clients and the average pension plan.

settlements, between our U.S. DIS clients and the average pension plan.

Average pension plan

Based on average asset, PBO, benefit payments, contributions, expense, discount rate, and asset allocation information for all U.S. DB pension plans sponsored by U.S. Fortune 1000 companies that provide sufficient data in their SEC Form 10-K (c.300 plans). We have estimated the change in assets for the average plan using average benefit payments and contributions as well as widely used indices in the respective asset classes. We have estimated the change in liabilities for the average plan using average benefit payments, service cost, and interest cost as well as changes in bond yields. Actual benefits payments, contributions, service cost, and interest cost are used for estimates the themselves to the most recent calibration date; expected figures are used for estimates after the most recent calibration date. We have assumed the modified duration of the average US DB pension plan to be 16 years for the entire sample period.

From December 31, 2011 to December 31, 2019, our estimates for returns and discount rate changes exhibited significant correlation with the actual averages calculated when new annual reports are published. On an annual basis (when 10-K information is published and aggregated), we adjust prior periods for the residual error and recalibrate model inputs. The last recalibration was as of December 31, 2019.

Time period

Time period
The starting point of December 31, 2011 was driven by the sample size of TWIS's U.S. full plan DIS clients. A year prior, TWIS had two U.S. full plan DIS clients, which we considered to be an unreliable sample size that could easily be skewed by non-investment factors.

Disclaimer – Delegated track record methodology and disclaimer U.K. Defined Benefit Plans

Please note that investment returns can fall as well as rise, and that past performance is not a guide to future investment returns.

Purpose
The WTW client composite performance is intended to provide an indication of how investment using a more diversified and risk managed approach, as implemented for our UK delegated client portfolios, compares to the estimated funded status progress of the average UK pension scheme based on information from the PPF 7800 Index released by the Pension Protection Fund (PPF).

WTW Client Index composition
The performance data is an equally weighted composite of total scheme performance of Willis Towers Watson's UK full scheme delegated investment services (DIS) clients. The composite includes nine clients at the outset and forty-nine at the end, with a total of sixty clients featuring over the period. The composite includes only UK DIS clients where we manage the entirety of their assets, and some where there are constraints on our investment decision making, such as the level of liability hedging. It excludes client portfolios where our mandate covers only a portion of a scheme's assets e.g. a single asset class mandate, or return seeking assets only mandates.

a single asset class mandate, or return seeking assets only mandates.

Limitations

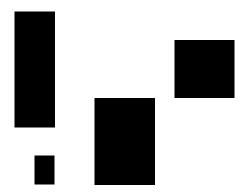
Our clients have differing objectives, investment beliefs, valuation methodologies and constraints which they place upon us. All of these can influence the exact portfolio we construct, and therefore the performance that is achieved. Additional governance and operational benefits of investing through our DIS service are not captured in this composite. The funded status progression is shown on a gilts flat funding basis—where this is not available we have used the closest similar basis. The funded status shown for WTW clients includes contributions.

shown for WTW clients includes contributions.

Average UK DB pension scheme
Based on the PPF7800 Index released monthly by the PPF. We have converted the
reported average funded status on a PPF basis to a gilts (ie UK government bond)
basis, by adjusting for differences in the underlying assumptions and benefit levels.
Our assessment of the approximate impact of these differences involves making some
assumptions for the membership characteristics of a typical UK defined benefit pension
scheme, for example the duration of the liabilities, size of pensions and split between
non-pensioners and pensioners. Although making alternative assumptions about these
membership characteristics may make some difference to the projected funded status,
we would not expect the overall conclusion to be materially different. The average
scheme funded status shown is a weighted average on a gilts flat basis and includes
contributions. The contributions received by the average UK scheme may be different to
that received by WTW Clients. Certain of the assumptions have been made for modelling
purposes and are unlikely to be realised. No representation or warranty is made as to the
reasonableness of the assumptions made or that all assumptions used in achieving the
returns have been stated or fully considered. Changes in the assumptions may have a
material impact on the funded status presented.

Time period

The starting point of March 2009 was chosen due to WTW having a suitable number of clients at that point to form a composite.



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