A new chapter for pension fixed income

A pragmatic approach to hedge diversification

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Many liability-driven investment (LDI) programs were established in an era when pension plans were significantly underfunded, had very long duration liabilities, and small hedge portfolios. Given these challenging conditions, the limited fixed income allocation needed to offset as much liability risk as possible. Hedge assets were concentrated with a small number of managers using customized benchmarks focused on long corporate bonds.

Today, pensions enjoy more favorable conditions: higher funding levels allow for much more flexibility in balancing risk and return; larger hedge portfolios can be efficiently allocated across a wider array of specialized managers; and shorter liability profiles make a broader spectrum of fixed income strategies relevant. This represents an opportunity to construct more flexible and effective hedge portfolios.

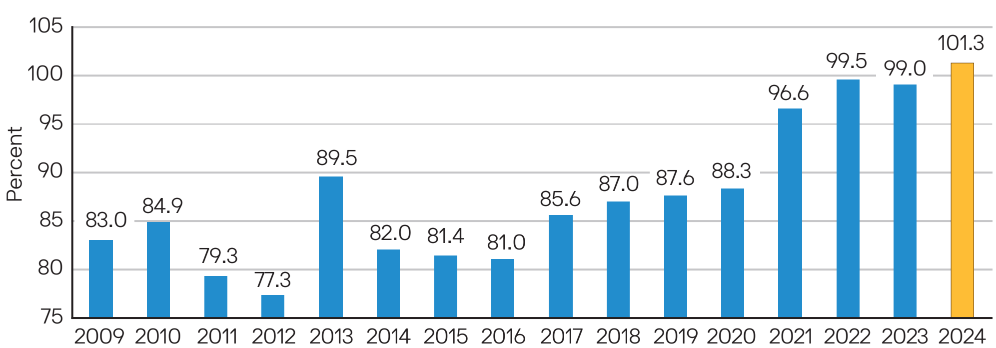
In contrast, legacy approaches to LDI that use a small number of managers running broad custom benchmarks fail to take advantage of this flexibility. Allocators should carefully consider the costs of this form of LDI relative to a more diversified model. A broader mix of fixed income strategies that emphasizes manager skill, prudent return generation, and credit risk diversification can outperform the liability while keeping risk safely contained.

Pension funding has improved

Pension funding has improved significantly in recent years, with the top 100 plans now in surplus for the first time in decades. This provides plan sponsors with far more strategic flexibility to optimize their investment portfolio for long-term objectives like outperforming liabilities, managing funded status risk, and potentially settling liabilities through lump-sum payouts or pension risk transfers (**Exhibit 1**).

Pensions have reached surplus for the first time in decades

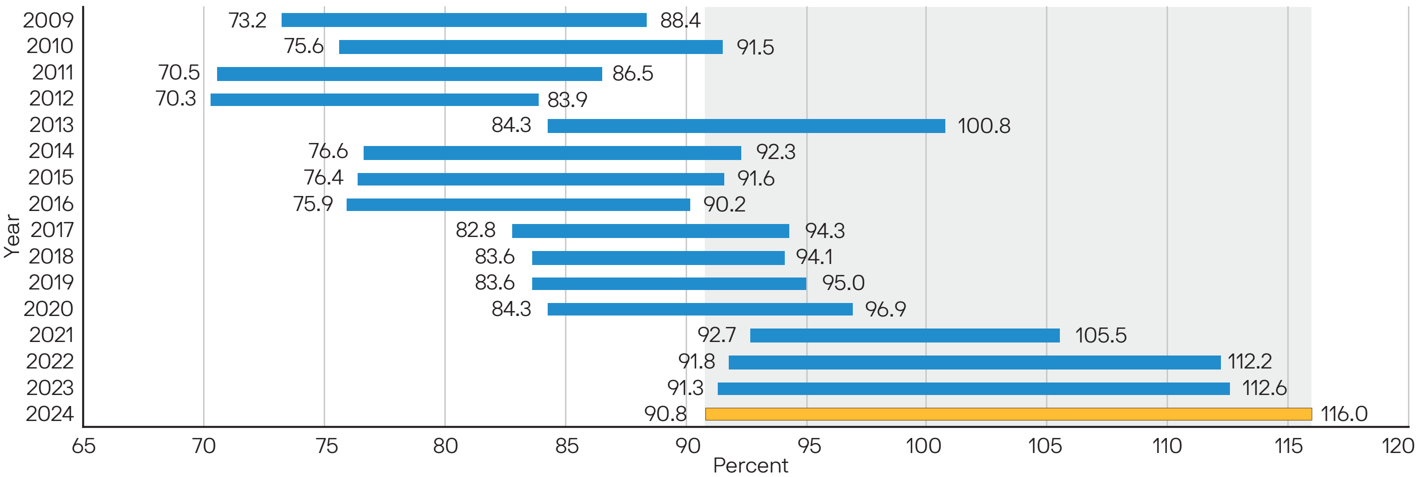
Exhibit 1: Historical GAAP* funded status for top 100 corporate plans



Source: Company 10-K filings, J.P. Morgan Asset Management; data as of December 31, 2024.
*GAAP: Generally Accepted Accounting Principles

As pension funding has improved, the range of outcomes has widened

Exhibit 2: 25th to 75th percentile funded status range for the top 100 corporate plans



Source: Company 10-K filings, J.P. Morgan Asset Management; data as of December 31, 2024.

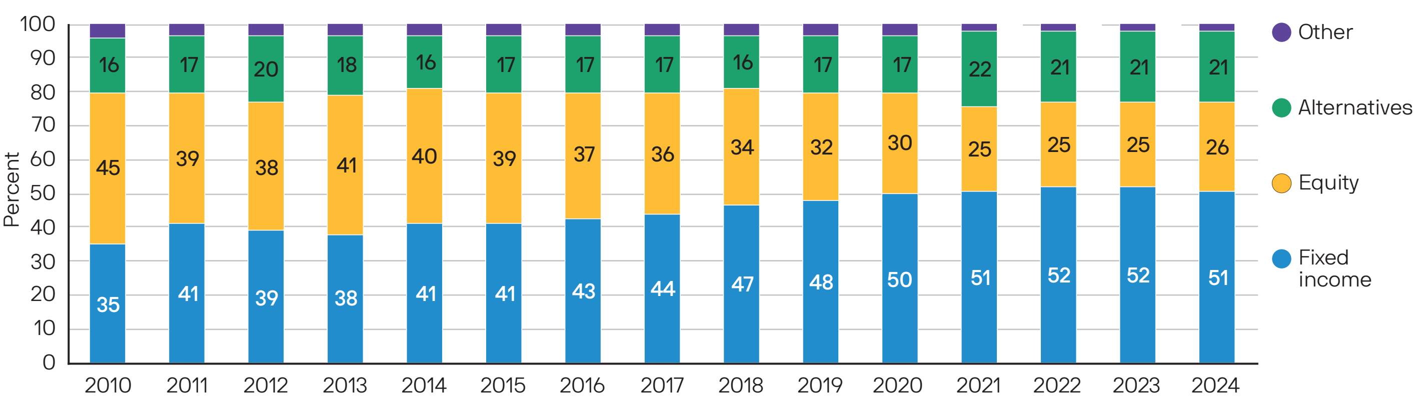
As the average funded status of the top 100 plans has improved, the range of funding across individual plans has widened (**Exhibit 2**). This may seem counterintuitive but actually reveals the power of reaching a surplus position: Full funding is not a barrier beyond which further progress is difficult; rather, a surplus *accelerates funding improvement.* Plans with large surpluses can easily maintain their funding advantage or use the excess capital in other ways.

Hedge portfolios have grown significantly

Asset allocators have taken advantage of improved funded status to de-risk their asset allocations by tilting toward fixed income and away from equities (**Exhibit 3**). The basic logic behind this move is straightforward—after years of undesirable funded status volatility, plan sponsors want to protect their gains by more closely aligning assets and liabilities. The natural choice for pension fixed income portfolios has been long duration bonds, usually high quality corporate debt.

With improved funded status, asset allocators are strategically shifting toward fixed income to stabilize portfolios

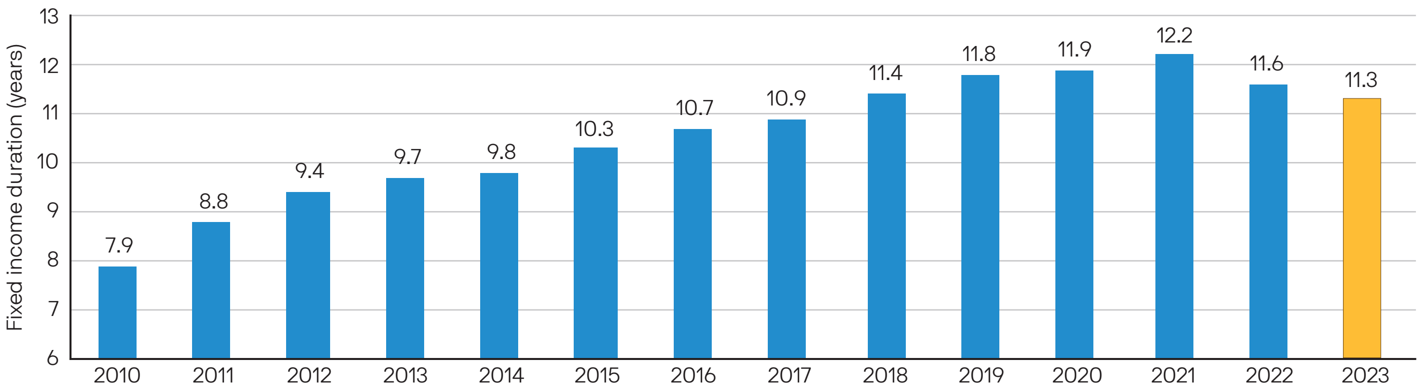
Exhibit 3: GAAP asset allocation trend (%) for top 100 corporate plans



Source: Company 10-K filings, 5500 filings, J.P. Morgan Asset Management; data as of December 31, 2024. Numbers may not add up due to rounding.

The duration of pension fixed income has stopped growing

Exhibit 4: Aggregate physical fixed income duration for top 100 corporate plans



Source: Company 10-K filings, 5500 filings, J.P. Morgan Asset Management; data as of December 31, 2023.

Recently, however, the relationship between improved funding and larger hedge portfolios appears to have stalled: The overall size of the fixed income allocation has stabilized, while the duration of fixed income holdings has declined (**Exhibit 4**). One interpretation of this pattern is that allocators now believe that hedge portfolios are large enough to efficiently offset most or all liability risk.

Liability durations are declining

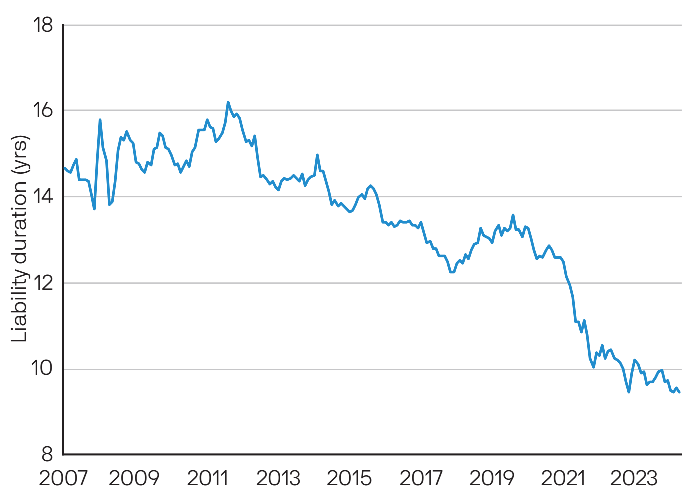
A key reason why pensions need less duration in their fixed income strategies today is that the pension liabilities themselves are maturing and their overall duration is shrinking. There are a number of contributing factors:

- Liability cash flows naturally "roll forward" in time as participants age, approach retirement and begin receiving benefits.
- The widespread closure of plans to new entrants has kept the population of young participants from growing and has reduced the creation of new liabilities with very long maturities.
- Many plans have frozen, shutting off all new accruals across the full spectrum of participants and capping the size of future benefit payouts.
- Finally, the positive convexity of pension liabilities means that their duration has declined as interest rates have risen.

While each of these has had an incremental, and at times subtle, effect on plan liabilities, the total impact across time has been profound. **Exhibit 5** illustrates the drop in liability duration across time for a hypothetical frozen pension plan. From 2007 to 2023, the duration has fallen from a peak of 16 years to a current level below 10 years. While not every plan will experience the same degree of shortening duration, the direction of travel is similar.

Shorter duration pension liabilities require structurally different hedge portfolios

Exhibit 5: Liability duration of a frozen plan has declined over time

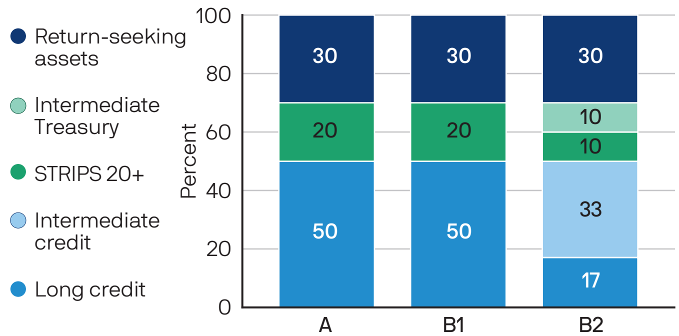


Source: FTSE Pension Discount Curve, J.P. Morgan Asset Management; data as of December 31, 2024. Analysis based on a representative set of expected benefit payment cash flows.

The effect of a shorter liability duration on portfolio construction is straightforward: Hedge portfolios that used to focus exclusively on long duration bonds now need to incorporate short and intermediate duration strategies to avoid over-hedging and maintain alignment with the liability. **Exhibit 6** demonstrates the importance of adjusting the hedge portfolio across time to account for both shorter liabilities and improved funding.

Lower duration liabilities impact hedge portfolio construction

Exhibit 6: Maintaining hedge ratio using lower duration fixed income



	A	B1	B2
Funded status (%)	90	115	115
Fixed income (%)	70	70	70
Liability duration (yrs)	14	10	10
Hedge ratio (%)	72	130	72

Source: J.P. Morgan Asset Management; data as of December 31, 2024.

The end point of derisking may have arrived

The combination of higher funding, larger fixed income portfolios and shorter liability duration means that many plans are likely approaching the natural endpoint of their de-risking process. This endpoint occurs when a pension has enough hedge assets to offset liability risks, and further allocation to fixed income would lead only to an inefficient trade-off of between a small incremental reduction in volatility and a more meaningful loss of potential returns.

Plans that have reached full funding (or a surplus) and maintain a large allocation to hedge assets will have already reduced the asset-liability mismatch to a very low level. The odds of a reversal in funding that is material to the plan and the sponsor are very low. At this point, the largest remaining risks are internal to the hedge portfolio.

What are these risks? First, a high concentration in corporate bonds exposes the assets, but not the liabilities, to downgrade and default risk. Second, maintaining excess return is difficult when a hedge portfolio invests exclusively in investment grade corporate and Treasury bonds. Third, narrow manager line-ups with similar customized benchmarks increase portfolio overlap and limit potential alpha generation.

A systematic approach to hedge diversification

Moving to a "full spectrum" fixed income strategy can address these risks. Using multiple strategies across market sectors can effectively match key liability risk factors while targeting higher returns and improving the potential for manager alpha.

In practice, this will require three steps:

1. **Segmentation:** Breaking apart broad customized LDI strategies in favor of multiple subcomponents of the fixed income universe, each with substantial populations of managers.

2. **Diversification:** Allowing the hedge portfolio to incorporate fixed income categories beyond credit and Treasuries that can add value through structural diversification or return enhancement.

3. **Allocation:** Identifying skilled active managers operating within each subcomponent to maximize the contribution of uncorrelated alpha to long term performance.

Well-funded pensions don't need to choose between low funded status volatility or outperforming the liability—they can do both. Hedge diversification is a pragmatic approach that targets successful real-world outcomes rather than minimizing tracking error in a model. It will be able to offer consistently higher yields during normal market environments and greater risk diversification during periods of market stress.

Expanding the universe of hedge assets

Larger hedge portfolios take up more room in the asset allocation, and they should be responsive to a broader set of objectives including structural diversification and return generation. This requires access to the broader universe of fixed income sectors, and we find it helpful to segment this universe by functional role.

Exhibit 7 categorizes a wide range of fixed income and income-focused investment strategies into a series of "style boxes" that reflect each asset class's ability to (a) provide exposure to well-defined risk factors present in the liability, or (b) improve the hedge portfolio's risk-adjusted performance through diversification, tactical flexibility or enhanced returns.

Some of these approaches can overlap. Core-plus, income or multi-sector fixed strategies can typically allocate to sectors like securitized credit, high yield and bank loans (others too)—in addition to more traditional high quality core sectors. This can simplify the process of diversification by allowing a single manager to optimize the portfolio's exposure across less traditional hedge components.

Expanding the universe for your LDI portfolio allows investors to achieve diverse objectives

Exhibit 7: Style boxes associated with enhanced liability driven investing (LDI)

Goal for LDI portfolio	Fixed income sector exposure
Concentrated risk factor sources Traditional LDI portfolio components that maximize the impact of smaller hedge portfolios	• Long credit/corporate • Long Treasuries/STRIPS • Treasury futures/Interest rate swaps
LDI building blocks Individual building blocks that can maximize the efficiency of deploying a large hedge portfolio across multiple managers	• Short duration/Short core • Intermediate Government-Credit/Core bond • Intermediate credit • Long credit • Long Treasury/STRIPS
Credit risk diversification Reduce a hedge portfolio's exposure to concentrated corporate credit risk	• Long duration securitized bonds • Securitized credit/ABS • CMBS
Tactical flexibility Capture excess returns from managers allocating across sector boundaries	• Short core-plus • Core-plus • Multi-sector credit • Income/Unconstrained
Return enhancement—extended credit Improve potential returns with exposure to higher yielding credit sectors	• High yield • Bank loans • Commercial mortgage debt • Preferred/AT1/Co-Co Debt • CLOs
Return enhancement—private funds Extend hedge portfolio into suitable alternatives	• RE Mezzanine debt • Core infrastructure • Core transportation • Private direct lending (primary/secondary)

Source: J.P. Morgan Asset Management.

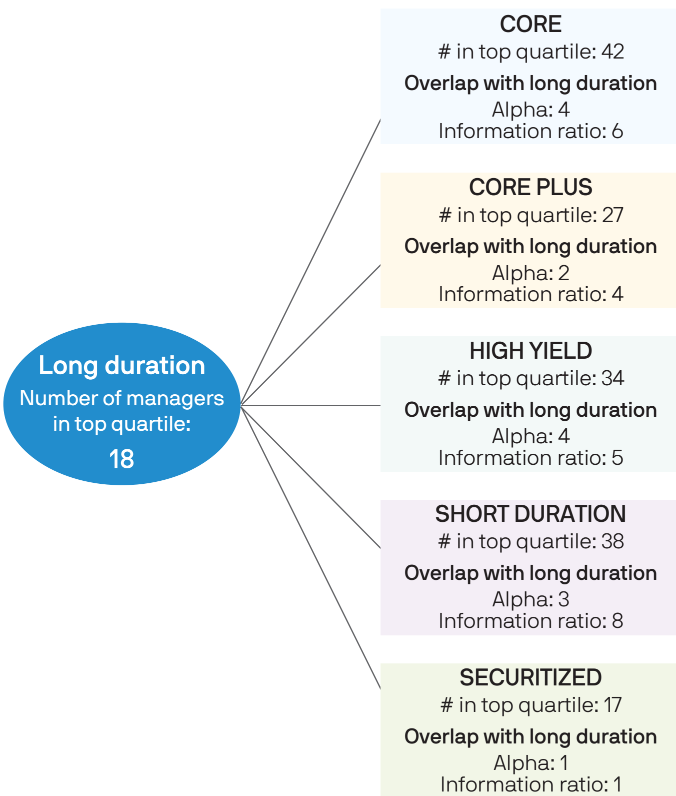
Manager diversification adds value

Manager concentration in today's larger hedge portfolios can be a problem. Managers who were originally hired for more specific skill in long duration strategies are often responsible today for a portfolio benchmarked to a mix of subcomponents across the full yield curve.[1] Evidence suggests that high levels of manager skill do not transfer easily from one sector to another—suggesting that a broad re-underwriting of the roster could be worthwhile. Adopting a more diversified fixed income strategy presents an opportunity to do just that.

[1] It could be argued that this reflects an LDI manager's past success and may also produce some marginal fee savings due to larger individual account sizes.

Diversifying across a broader range of active managers optimizes LDI portfolios, and highlights the importance of sector-specific expertise

Exhibit 8: Analysis of overlap among top quartile managers—comparing 5-year alpha and information ratios across various fixed income sectors



Source: eVestment, J.P. Morgan Asset Management; data as of December 31, 2024. Performance data is gross of fees.

In **Exhibit 8** we run a test using eVestment performance data to examine top-quartile active managers across six broad sectors of fixed income. The objective is to see how likely it is that top performance in in one market sector translates to top performance in other areas. We use 5-year alpha and 5-year information ratio as a measure of skill. This is a simplified analysis and is not intended to replicate a more robust manager search process — but it's reasonable to assume that a manager search would focus on those with strong performance across these key metrics.

The results are fairly clear. Managers selected for high levels of skill in long duration may be unlikely to demonstrate the same level of skill elsewhere. This inefficiency could be overlooked when the bulk of the LDI portfolio was in the manager's preferred sector, but no longer. A diversified strategy will benefit from pursuing manager skill in each sector individually.

Critically, this is NOT an argument to avoid active management and use passive strategies instead. Active fixed income managers consistently outperform passive in most sectors of the market.[2] Therefore, the strategic benefits of segmenting and diversifying the hedge portfolio may be maximized when a broader range of active managers are used.

The case for non-traditional hedge assets

Over time, pension liabilities can deviate from an LDI portfolio across two key dimensions: first of these is the impact of actuarial risks that tend to increase the liability across time, either from longevity extension or from participant behavior; second of these is the liability's lack of sensitivity to downgrade and default risk that can negatively impact the corporate bonds that comprise a large part of the hedge portfolio. Solutions are available to address both.

[2] This topic was explored in more detail in the Allocation Spotlight entitled "Passive investing is a choice, not a default option."

Return enhancement is a key component of liability risk management

For actuarial risks, there are no financial assets that provide a direct offset. Rather, the asset allocation needs to target a level of excess return that can match or exceed unanticipated liability growth across time. Pensions with large pools of return-seeking assets are naturally positioned to generate the necessary level of return (though of course with a higher level of risk). But those with large hedge portfolios may find it more difficult to generate these excess returns. Fortunately, some necessary return enhancement can be achieved through the use of extended fixed income sectors and certain low-volatility alternative asset classes (**Exhibit 9**).

Credit risk diversification is undervalued in hedge portfolio construction

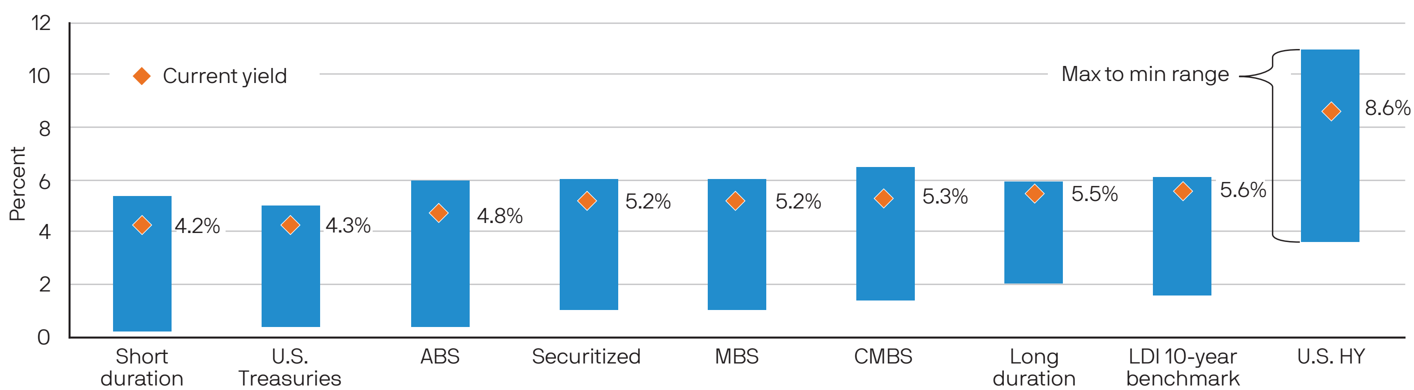
When reaching for return within the hedge portfolio, it is important to consider the impact on credit risk concentration. Strategies such as high yield, private placements, or syndicated loans can be highly correlated to the corporate spread risk present in traditional LDI assets. There may well be positive tradeoffs associated with adding these higher yielding categories of fixed income to the mix, but risk diversification is limited. In a severe credit downturn, when downgrade and default risk rise substantially, they may increase asset liability mismatch.

Finding genuine protection from credit risk within fixed income often comes with a loss in yield, such as with Treasury bonds. While this does not preclude the use of Treasuries in hedge portfolios, there are limits to how much can be used before the return give-up becomes too costly. There is a special case for investments than can offer protection from credit risk while preserving an attractive level of yield and duration.

A key sector of the market can deliver this rare blend of attributes: long duration securitized debt issued to fund multifamily residential properties under government-guaranteed lending facilities. Far more than a niche, these assets comprise nearly $1 trillion in investable assets. They are default-remote given the credit protection provided by the Government Sponsored Enterprises and offer yield comparable to high quality corporate bonds. Within hedge portfolios, they offer a powerful mix of yield and credit protection.

As hedge portfolios grow, incorporating extended fixed income sectors becomes crucial for managing actuarial risks and enhancing returns

Exhibit 9: Yield-to-worst across fixed income sectors (April 2015–April 2025)



Source: Bloomberg, J.P. Morgan Asset Management; data as of April 11, 2025.

When credit underperforms, long securitized delivers better performance

Exhibit 10A: Periods of positive credit performance versus liabilities

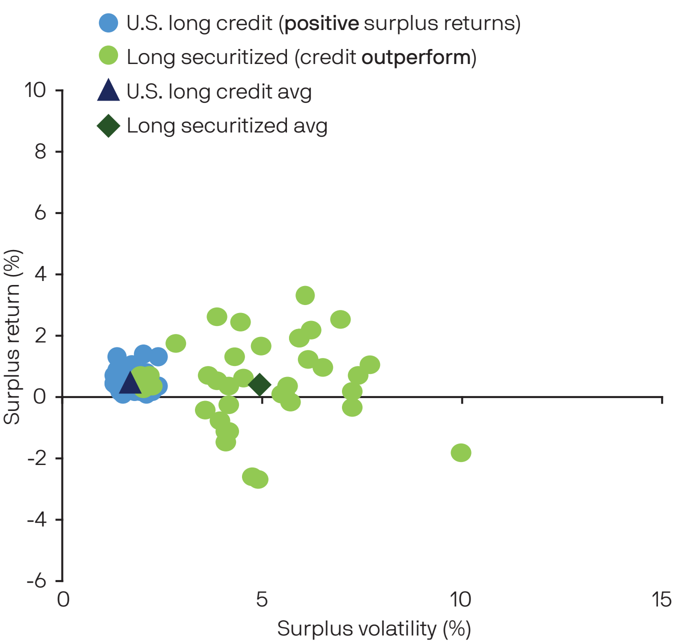
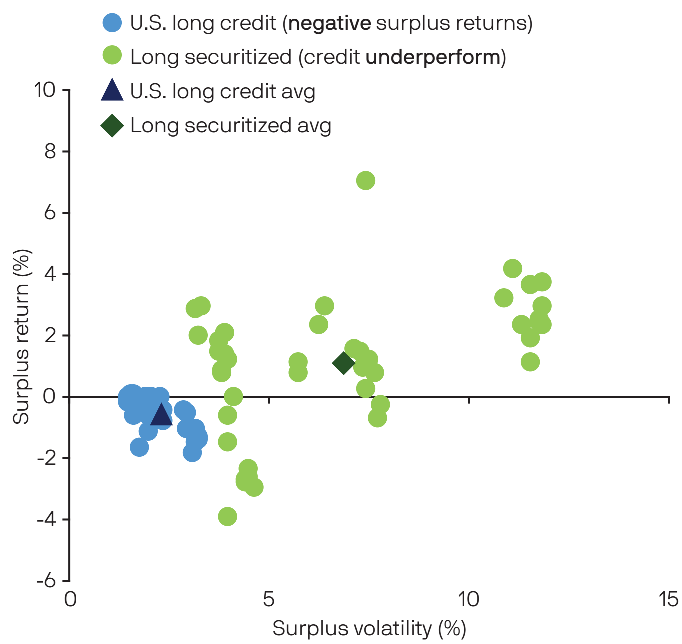


Exhibit 10B: Periods of negative credit performance versus liabilities



Source: Barclays Live, Bloomberg, J.P. Morgan Asset Management; data as of December 31, 2024. Long securitized returns based on actual JPM performance. Analysis measures surplus volatility and surplus return over rolling 36-month periods from 2002 through 2024 on a quarterly basis.

Exhibit 10 provides an interesting visual depiction of the diversifying role that long securitized can play. We break down historical performance into two subcategories: the first, shown in **Exhibit 10A**, includes only periods in which long credit outperformed liabilities; the second, shown in **Exhibit 10B**, includes only periods in which credit underperformed. What becomes visible in comparing these two performance regimes is that long securitized delivers more consistently positive returns, of higher magnitude, when credit underperforms – precisely the desired effect of hedge diversification. Also importantly, in both regimes the average performance of long securitized is positive, meaning that there is no expectation of underperformance for the hedge portfolio across time.

Conclusion

Today's combination of improved plan funding, larger hedge portfolios and declining liability durations suggests that a broad re-underwriting of pension fixed income strategy is in order. Asset allocators have an opportunity to adopt more diverse and flexible approaches that can deliver both effective risk management and valuable improvements in investment performance.

A strategy shift of this nature may have several elements:

- A well-funded pension with a substantial hedge portfolio can achieve a superior blend of low risk and modest excess return with a diversified fixed income strategy.
- Building a more flexible, segmented approach to fixed income that employs a mix of strategies across duration and credit sectors to represent the liability's key characteristics.
- Using the scale of a larger hedge portfolio to one's advantage by seeking highly skilled managers across the opportunity set.
- Broadening the objectives of the hedge portfolio to include higher returning and risk diversifying categories of fixed income.

The net result will be a more resilient hedge portfolio that can deliver valuable returns and risk diversification in exchange for an insignificant increase in tracking error to the liability. Is this trade-off worth it? Absolutely.

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