
Private Assets Meet Retirement Managed Accounts

A Liquidity-Centric Framework for Inclusion

Morningstar Retirement

February 2026

Contents

- 1 Introduction
- 2 Why Liquidity Matters
- 2 Modeling a Realistic Participant Population
- 5 Backtesting Reveals Key Insights
- 7 Conclusion
- 8 Appendix

Neelotpal Shukla, CFA
Director of Quantitative Research
Neel.Shukla@morningstar.com

Miguel Puerto, CFA
Senior Investment Analyst
Miguel.Puerto@morningstar.com

Abstract

As private asset managers seek entry into the \$12 trillion defined-contribution retirement market, the conversation must extend beyond access to include allocation. This white paper introduces a liquidity-centric framework for evaluating the inclusion of private assets, particularly semiliquid collective investment trusts, within defined-contribution managed accounts. Leveraging Morningstar Retirement's unique position as both a managed accounts provider and allocator, the paper simulates investor behavior, fund flows, and stress events to assess the operational viability of private asset vehicles in defined-contribution plans. The findings underscore that liquidity is not merely a product feature but also a systemic requirement shaped by participant behavior, plan design, and fiduciary obligations.

Key Takeaways

- ▶ Inclusion of private assets in defined-contribution plans requires careful liquidity sleeve design to withstand participant withdrawals, rebalancing, and market shocks.
- ▶ Backtests show that even modest redemption clustering can cause significant disruption, with some scenarios requiring liquid sleeves as large as 40%.
- ▶ Morningstar Retirement offers a unique vantage point: As a managed accounts provider, Morningstar Retirement is well-positioned to assess whether semiliquid private asset vehicles meet fiduciary and operational standards.

Introduction

As many in the investment community have observed, private asset managers are increasingly turning their attention to defined-contribution plans.

Given this backdrop and the astronomical amount of money at stake—\$12 trillion, by some estimates—much has been written about the potential effect of private assets on 401(k) plans. Concerns have been voiced¹ and rebuttals offered.² However, the nature of defined-contribution plans will also affect the fabric of private markets. In fact, we are witnessing the creation of evergreen funds for the defined-contribution space, rather than traditional drawdown funds. The implications are multifold: constant deal flow requirements, liquidity management to avoid cash drags, and short track records. In this

¹ United States Senate Committee on Banking, Housing, and Urban Affairs. 2025. *Warren Seeks Answers from Empower Retirement on Threats to Americans' 401Ks from Private Equity and Private Credit*. June 20, 2025. [Link](#).

² Empower Response to Senator Elizabeth Warren. July 7, 2025. [Link](#).

piece, we focus on one of the key concerns for participants, plan sponsors, and asset managers: liquidity.

Why Liquidity Matters

While fees and transparency are also important considerations in allocation decisions, they fall outside the scope of this analysis. Liquidity, however, remains a central challenge for private asset inclusion in defined-contribution plans. Asset managers recognize this and are increasingly designing semiliquid pooled investment vehicles, such as collective investment trusts, which combine a private asset “core” with a liquid “sleeve” to facilitate participant access.^{3,4}

Given the complexity of private assets, there is a broad consensus that they should not be made directly available for participant selection from the plan lineup. Instead, they should be offered through professionally managed avenues such as managed accounts or target-date funds, where a financial expert is involved in the allocation process.^{5,6,7} A robust allocation methodology must consider liquidity as a key component.

Guidance from the Department of Labor⁸ also identifies liquidity as a key risk that plan fiduciaries must evaluate. Specifically, any semiliquid vehicle must be designed such that when included in a diversified portfolio, it can support participant withdrawals and exchanges among funds available within the plan lineup. Furthermore, the liquidity evaluation should be made in light of the plan’s features and participant profile, including features such as employee ages, anticipated employee churn, and contribution and withdrawal patterns. Encouragingly, this regulatory perspective aligns closely with Morningstar Retirement’s own view. We believe that liquidity assessments should not be conducted in isolation by examining the semiliquid private CIT alone. Instead, one must view the CIT as a component in the multi-asset portfolios of thousands of investors, each with a unique and evolving financial picture.

Modeling a Realistic Participant Population

Our experimental setup begins with a synthetic population of 401(k) participants enrolled in managed accounts. These fictional investors are modeled on real participant data, with their ages, salaries, and contribution rate distributions mirroring those of Morningstar Retirement Manager’s population. Over time, the population evolves as new investors join, some opt out, and participants age.

3 Apollo Wealth Insights. 2025. *Debunking the Liquidity Myth to Unlock Private Markets for DC Plans*. Aug. 8, 2025. [Link](#).

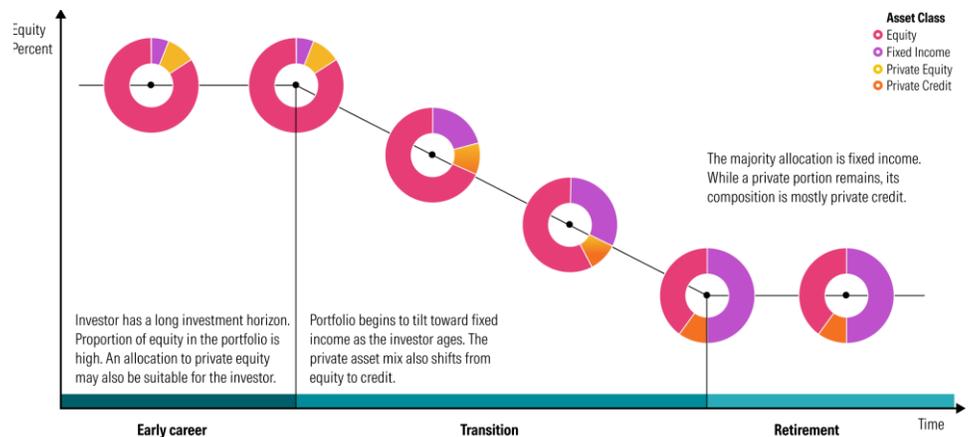
4 Private Equity International. 2025. *LPs questions GPs on rise of semi-liquids and potential conflicts with funds*. July 10, 2025. [Link](#).

5 Empower Press Center. 2025. *Empower to Offer Private Market Investments to Retirement Plans*. May 14, 2025. [Link](#).

6 Plan Sponsor Council of America. 2025. *What Would Private Assets in DC Plans Look Like?* Aug. 19, 2025. [Link](#).

7 Goldman Sachs Asset Management. 2025. *Private Markets Developments for Retirement Plans*. Aug. 8, 2025. [Link](#).

8 US Department of Labor. 2020. Employee Benefits Security Administration. Information Letter. June 3, 2020. [Link](#).

Exhibit 1 Lifecycle-Based Portfolio Adjustments With Gradual Shift Toward More-Conservative Assets

Source: Morningstar

Each participant receives a personalized portfolio that includes an allocation to private assets. These allocations follow the same rigorous methodology we apply when managing \$200 billion in assets for more than 2.5 million investors. Key elements of this methodology include:

- ▶ Broad diversification across global asset classes.

Lifecycle-based portfolio adjustments that gradually shift toward a more conservative allocation as participants age by reducing equity exposure and increasing fixed income. Within private assets, this transition involves moving from private equity to private credit, if both are available in the plan lineup. Exhibit 1 illustrates these dynamics.

The private assets are represented by a CIT model that uses a private core plus liquid sleeve structure. Mechanics of the CIT model include:

- ▶ The private core is assumed to generate some cash each month.
 - ▶ Redemption requests are first met using this cash, then by liquidating the liquid sleeve.
 - ▶ Only if these two sources are insufficient will we begin to liquidate the private core.
- ▶ Any cash remaining after redemptions is used to rebalance the sleeve and core back to their target blend by purchasing the underweight component. For example, if the liquid sleeve is below its intended weight, inflows will first be directed to it until it regains its target weight. Any additional inflows will be invested proportionately into both the core and sleeve assets.
- ▶ The per-period returns of the CIT are simply the asset-weighted returns of its two components. If the sleeve is underweight, the CIT's returns will be dominated by the returns of the private core and vice versa.

We acknowledge that these cash flow assumptions are simplified. In reality, both cash generation and consumption within the private core are irregular and "lumpy." This variability, however, is random and difficult to model. Assuming smooth cash flow provides a reasonable proxy for studying the dynamics of liquidity.

Having created multi-asset portfolios of funds with allocations to the semiliquid CIT, we simulate flows into and out of all assets over time, capturing both routine activities including investors’ monthly contributions, rebalancing, investment policy updates, and extreme “tail” events such as market shocks. Each event plays a distinct role in affecting asset flows. Additional details about these events follow.

► **Onboarding (Tail Event)**

All participants transition from portfolios without private assets to those with them. This shift occurs in a single step, with the final allocation implemented simultaneously across the population. The result is a concentrated and substantial inflow into private assets.

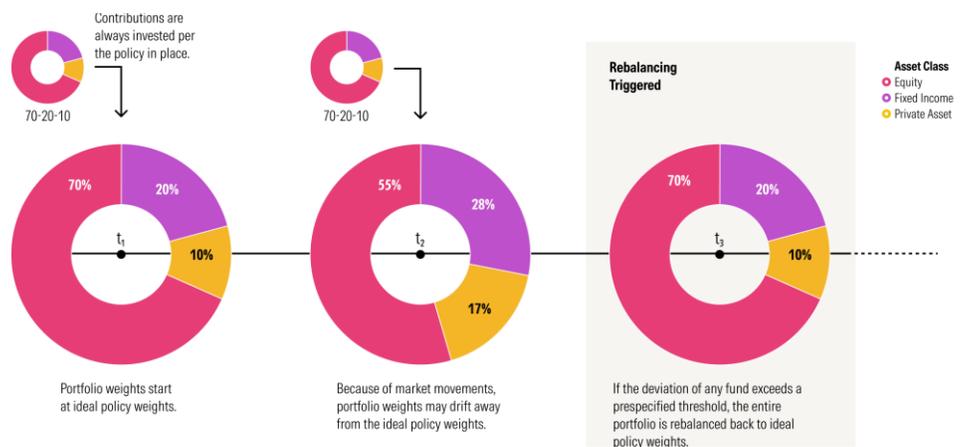
► **Contributions/Withdrawals (Routine Event)**

Participants make monthly contributions to their retirement accounts. These contributions are invested pro rata according to the prevailing policy at the time, reflecting standard accumulation behavior. Money for withdrawals by participants in the decumulation phase is generated by selling funds pro rata so that the portfolio composition remains unchanged.

Rebalance (Routine Event)

Over time, market movements may cause portfolios to drift from their target allocations. If the deviations get too large, the participant portfolio is rebalanced to restore alignment with the intended investment mix, as illustrated in Exhibit 2.

Exhibit 2 Contributions, Market Drift, and Rebalancing



Source: Morningstar

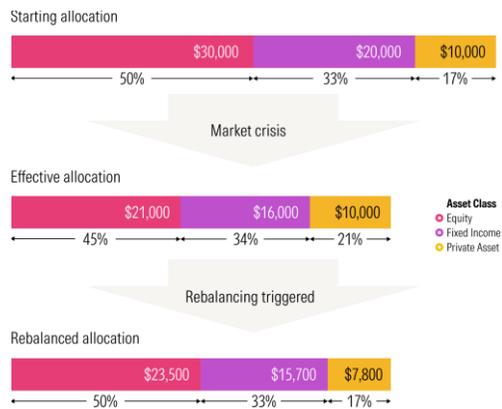
► **Policy Update (Routine Event)**

Following Morningstar Retirement’s Total Wealth methodology, equity exposure typically declines as participants age. It is, however, much more nuanced and personalized than the age-based approach that target-date funds follow. Every year, each participant’s investment policy is reviewed and revised to align with their changing financial circumstances.

► **Market Shock (Tail Event)**

External events such as economic downturns or geopolitical disruptions may cause significant market volatility. Participants' strategic asset allocations, however, do not materially change because of these events. It is also unlikely that managed accounts providers implement tactical tilts. Consequently, the effective weights of assets in the portfolio can deviate drastically from the investment policy weights.

Exhibit 3 Outflow Event Generated by a Combination of Market Shock and Rebalancing



Source: Morningstar

Backtesting Reveals Key Insights

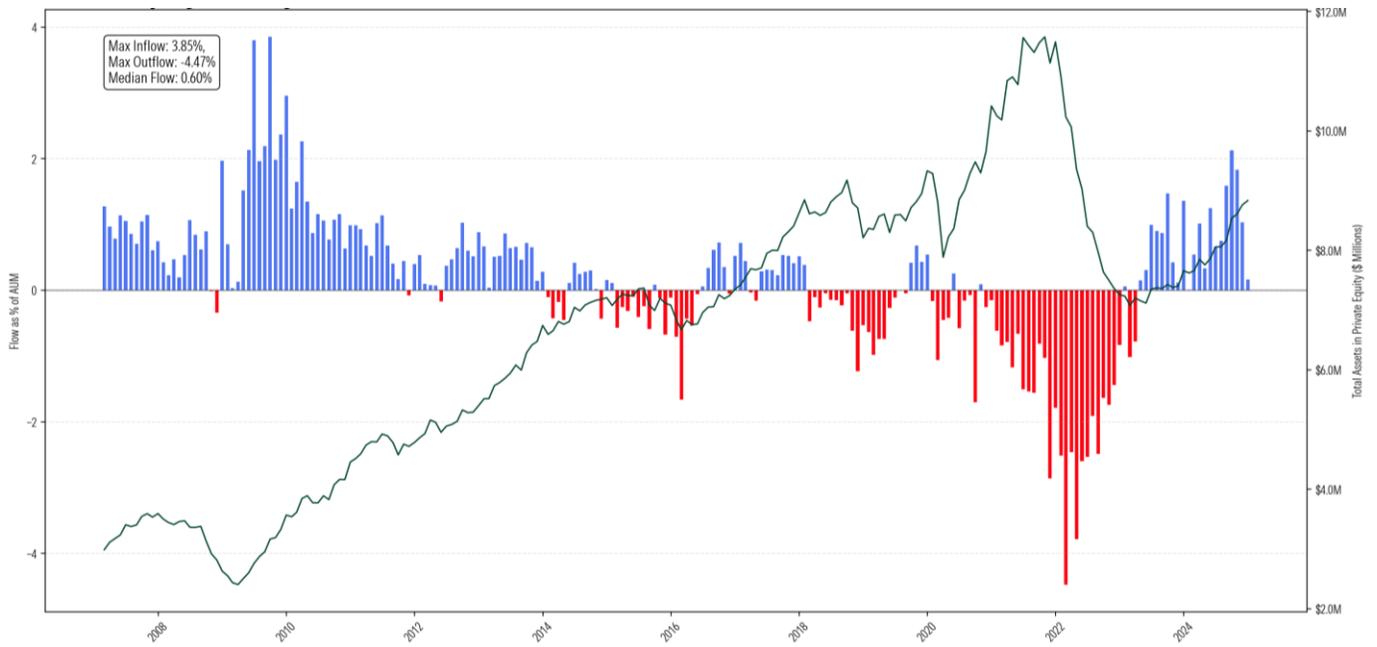
For our experiment, we chose to simplify matters by choosing indexes instead of specific funds. This allows us to cover all the asset classes in our model and sidestep fee- and manager-skill-based features of our fund selection methodology. The indexes and allocations used are included in the Appendix.

The private equity CIT was modeled as a blend of 60% private equity asset and 40% US large-cap stock. Private equity is proxied via the PitchBook PE All US index. US large-cap stock is proxied via a 50/50 blend of the Morningstar US Large Cap Broad Growth and Morningstar US Large Cap Broad Value indexes. We also assumed that the private equity core will generate cash equal to 1% of its net asset value every month. Note that the PitchBook PE index stitches together returns from multiple limited-life funds, thereby creating an effective bogey to mimic the performance of an evergreen private asset vehicle, the kind we expect to encounter in the defined-contribution space. It, too, however, is prone to the return-smoothing that plagues private markets.⁹

An 18-year backtest on a representative managed accounts population produced several notable insights.

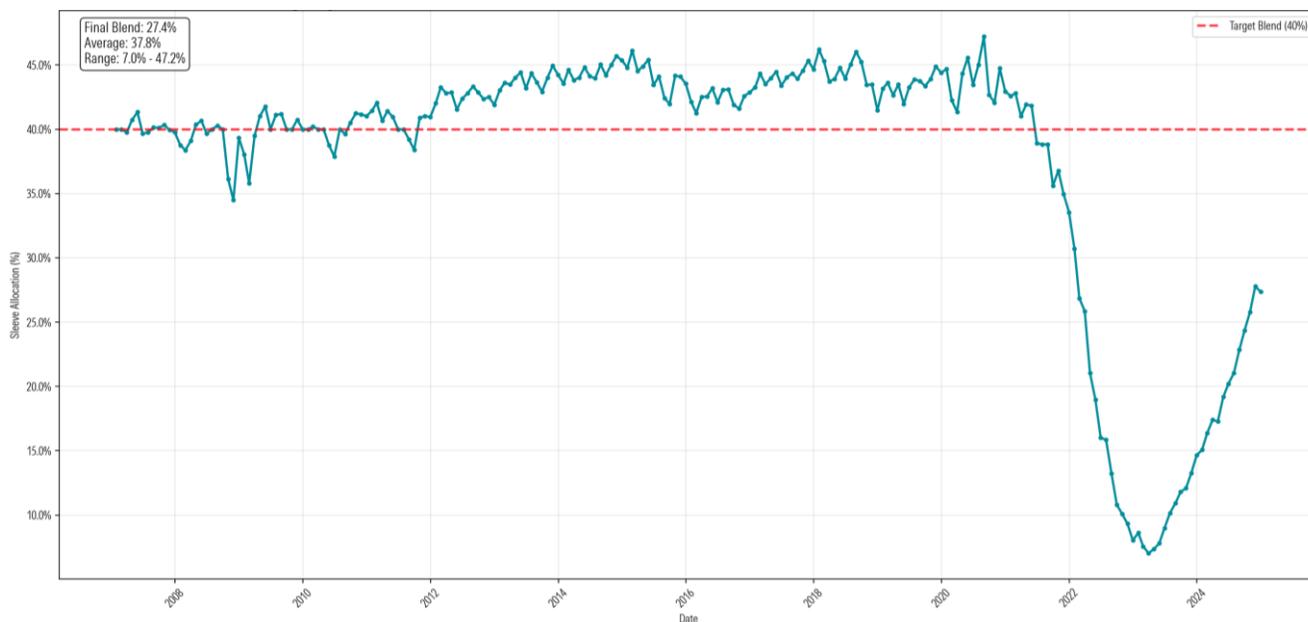
- Periods of heightened volatility—market crises—affect the private equity CIT negatively. We see this in the 2008–09 global financial crisis, the 2015–16 oil price shock, the 2020 covid-19 downturn, and most dramatically, 2022.

⁹ PitchBook Analyst Note. 2021. *Return Smoothing in Private Markets: Estimating the true volatility of private market returns*. June 4, 2021. [Link](#).

Exhibit 4 Private Equity CIT Monthly Flows (% of Previous Month AUM) and Total Assets Allocated

Source: Morningstar

Outflows tend to cluster, as can be seen in Exhibit 4. While an individual redemption may represent only 2% to 3% of the investment's value, a series of consecutive outflows can be highly disruptive. This dynamic was evident in 2022, when assets in the private equity CIT declined by nearly 40%. To withstand the stressors imposed by inclusion in defined-contribution plans, semiliquid CITs may require liquidity sleeves as large as 40%. Of course, these results depend heavily on the size and the composition of the sleeve, as well as the allocation to the semiliquid CIT in the plan's policy portfolios. Changing any of these factors can materially alter the results. Changes in the size of the liquidity sleeve over time are plotted in Exhibit 5.

Exhibit 5 Evolution of Liquidity Sleeve in Private Equity CIT

Source: Morningstar

Reducing the allocation to the private CIT would lower the required sleeve size, but it would also limit assets under management for the private asset manager. Conversely, increasing the sleeve size allows for greater AUM but reduces the effective fee, as a larger share of the CIT consists of liquid, publicly traded instruments such as exchange-traded funds, futures, or cash that can be accessed inexpensively.

Ultimately, this becomes a balancing act for asset managers: optimizing liquidity to meet participant needs while maintaining sufficient capital for deployment into private investments.

Conclusion

As private asset managers seek entry into the defined-contribution ecosystem, the conversation must evolve beyond access to include allocation. Morningstar Retirement's unique vantage point as a managed accounts provider enables us to perform a rigorous, data-driven evaluation of how private assets can be responsibly integrated into participant portfolios. Our research underscores that liquidity is not merely a product feature but a systemic requirement, shaped by participant behavior, plan design, and fiduciary obligations.

Through our simulation of a semiliquid collective investment trust within managed accounts, we demonstrate that liquidity stress is not hypothetical. It is real, recurring, and potentially disruptive. The findings suggest that liquidity sleeve design—both in terms of size and medium—must be carefully calibrated to ensure resilience. For private asset managers, this means designing vehicles that can withstand the operational realities of defined-contribution plans. For plan sponsors and fiduciaries, it means partnering with allocators who can translate complexity into suitability. The path forward must balance the desire for inclusion with responsible design and integration. ■■

Appendix

Private CIT Allocations

The following exhibit contains illustrative allocations to private assets. Investors receive portfolios that are situation-specific blends of the “pillar” portfolios exhibited here. Personalized blending is done per the details in Chapter 3 of Morningstar’s Retirement Managed Accounts and Advice Methodologies.

Exhibit 6 Illustrative Allocations to Private Assets in Accumulation Pillar Portfolios

Asset Class	Index	Before: Public Only			After: Public + Private		
		Accum1	Accum2	Accum3	Accum1	Accum2	Accum3
Large Growth	Morningstar US Large Broad Growth	2%	8%	15%	1%	7%	14%
Large Value	Morningstar US Large Broad Value	2%	8%	15%	1%	7%	14%
Mid Growth	Morningstar US Mid Cap Brd Grt	1%	3%	6%	1%	3%	5%
Mid Value	Morningstar US Mid Cap Brd Val	1%	3%	6%	1%	3%	5%
Small Growth	Morningstar US Small Brd Grt Ext	1%	3%	5%	0%	2%	5%
Small Value	Morningstar US Small Brd Val Ext	0%	2%	5%	0%	2%	4%
Real Estate	Morningstar US REIT	0%	2%	3%	0%	2%	3%
International	Morningstar DM xUS	3%	13%	25%	2%	12%	23%
Emerging Markets	Morningstar EM	1%	6%	13%	1%	6%	11%
Commodity	Bloomberg Commodity	0%	2%	3%	0%	1%	3%
Private Equity	PitchBook PE All US				1%	5%	10%
Short-term Bond	Morningstar US 1-5Y Core Bd	9%	5%	0%	8%	4%	0%
Intermediate Bond	Morningstar US 5-10Y Core Bd	23%	13%	1%	20%	11%	1%
Long-term Bond	Morningstar US 10+Y Core Bd	39%	22%	1%	34%	19%	1%
Short TIPS	Morningstar US 1-5Y TIPS	0%	0%	0%	0%	0%	0%
Long TIPS	Morningstar US 10+Y TIPS TR USD	0%	0%	0%	0%	0%	0%
High Yield	Morningstar US HY Bd	0%	0%	0%	0%	0%	0%
International Bond	Morningstar Gbl xUS Core Bd	19%	11%	1%	16%	9%	1%
Emerging Bond	Morningstar EM Bd	0%	0%	0%	0%	0%	0%
Cash	Morningstar US Cash TR USD	0%	0%	0%	0%	0%	0%
Private Credit	Cliffwater Direct Lending Index				12%	7%	0%

Note: These allocations were used for experiments included in this white paper. Actual allocations to private assets in defined-contribution plans will depend upon several factors including but not limited to the fees and returns characteristics of both the private asset CIT and other public funds available in the plan lineup.

Disclosures

©2026 Morningstar Investment Management LLC. All Rights Reserved. The Morningstar name and logo are registered marks of Morningstar, Inc. Morningstar Retirement offers research- and technology-driven products and services to individuals, workplace retirement plans, and other industry players. Associated advisory services are provided by Morningstar Investment Management LLC, a registered investment adviser and subsidiary of Morningstar, Inc.

The information contained in this document is the proprietary material of Morningstar. Reproduction, transcription, or other use, by any means, in whole or in part, without the prior written consent of Morningstar, is prohibited. Opinions expressed are as of the current date; such opinions are subject to change without notice. Morningstar or its subsidiaries shall not be responsible for any trading decisions, damages, or other losses resulting from, or related to, the information, data, analyses or opinions or their use. This commentary is for informational purposes only. The information, data, analyses, and opinions presented herein do not constitute investment advice, are provided solely for informational purposes and therefore are not an offer to buy or sell a security. Please note that references to specific securities or other investment options within this piece should not be considered an offer (as defined by the Securities and Exchange Act) to purchase or sell that specific investment. The performance data shown represents past performance. Past performance does not guarantee future results. This commentary contains certain forward-looking statements. We use words such as "expects", "anticipates", "believes", "estimates", "forecasts", and similar expressions to identify forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially and/or substantially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason.