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ENDOWMENTS 3.0

ASSOCIATION OF COLORADO INDEPENDENT SCHOOLS

JANUARY 22, 2025

AGENDA

1	Smoothing Distributions
2	Growing Assets
3	Considering Private Assets

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SMOOTHING DISTRIBUTIONS

COMMON DISTRIBUTION METHODOLOGIES

As endowments grow, the distribution policy has an increasing impact on the current distributions and long-term appreciation of the portfolio. While endowments have developed countless permutations of distribution policies, these represent commonly used approaches.

	Straight Percentage	Range Percentage	12 Quarter Average	20 Quarter Average	Inflation Adjusted Hybrid
Methodology	Multiply a set percentage (e.g., 4.5%) times asset base at a point in time (e.g., FYE).	Select percentage from within eligible bands (e.g., 2-4%) to multiply times fixed or average asset base.	To calculate the asset base, average the assets over the past 12 quarters.	To calculate the asset base, average the assets over the past 20 quarters.	Use CPI or other inflation metric to calculate portion of spend, then asset-based method for rest of calculation.
Benefit	Simplicity	Flexibility	Familiarity	Smoother	Smoothest
Disadvantage	Uncertainty	Uncertainty	Extremities	Slow-Growth	Complicated

12 QUARTER V. 20 QUARTER SMOOTHING

This analysis contrasts the impact of 12-Quarter versus 20-Quarter smoothing. As one might expect, smoothing the asset base calculation over 20 quarters provides for smoother changes in distributions because it reacts more slowly to both positive and negative events due to investment return and fundraising.

	Straight Percentage	Range Percentage	12-Quarter Average	20-Quarter Average	Inflation Adjusted Hybrid
Methodology	Multiply a set percentage (e.g., 4.5%) times asset base at a point in time (e.g., FYE).	Select percentage from within eligible bands (e.g., 2-4%) to multiply times fixed or average asset base.	To calculate the asset base, average the assets over the past 12 quarters.	To calculate the asset base, average the assets over the past 20 quarters.	Use CPI or other inflation metric to calculate portion of spend, then asset-based method for rest of calculation.
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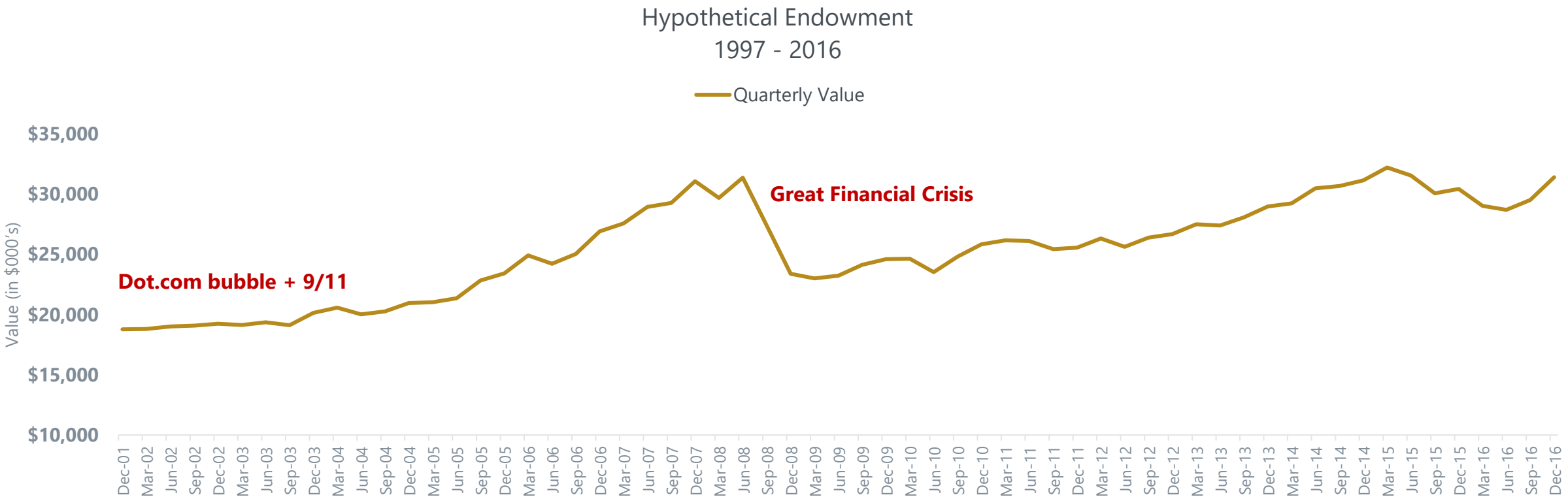
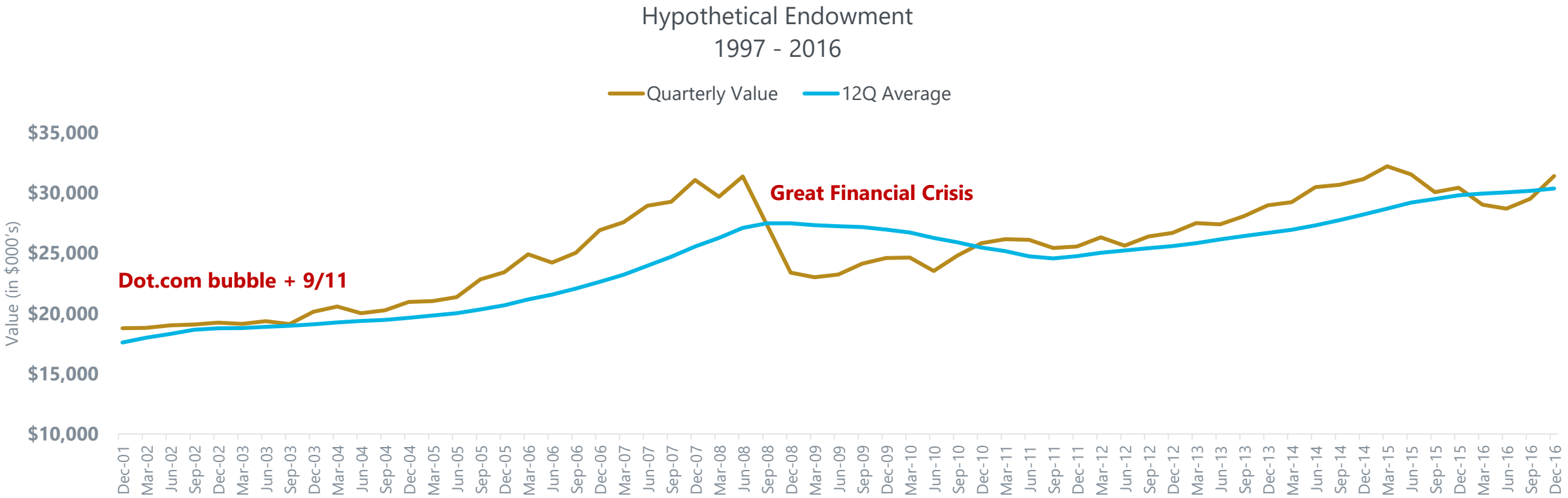
HYPOTHETICAL ENDOWMENT: CHANGE IN VALUE

The graphic below reports the hypothetical quarterly value of an endowment, which can then be used to inform the asset base calculation for a distribution policy. This asset base incorporates investment performance, distributions, and fundraising, as well as costs associated with investment management. This time period includes two significant stress tests.



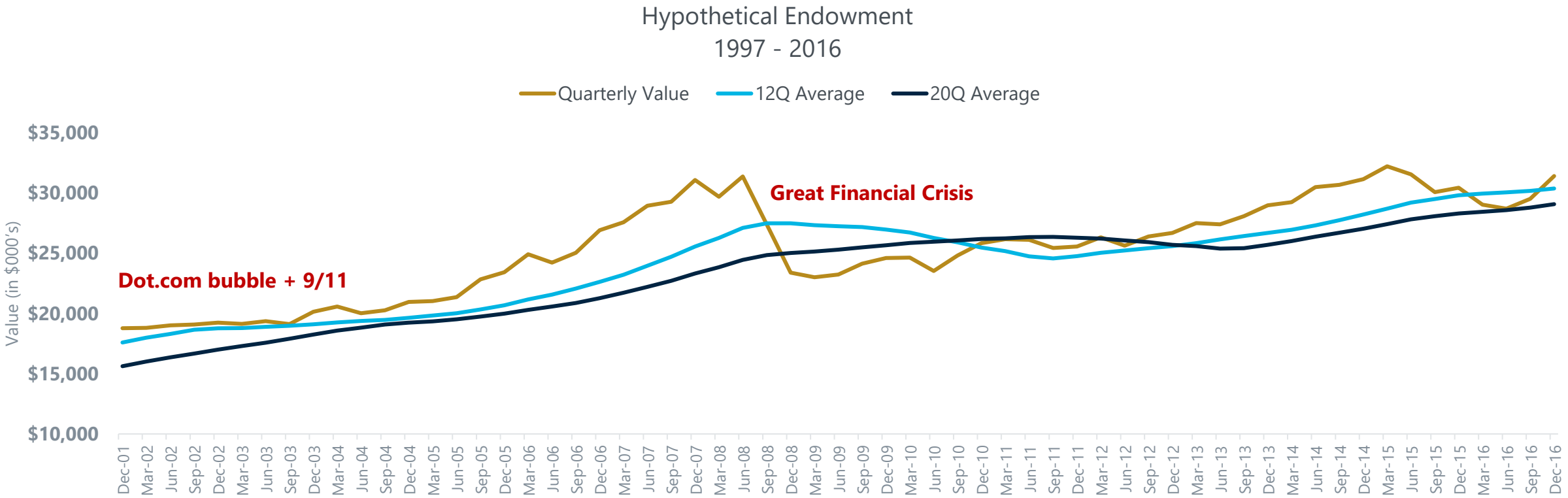
HYPOTHETICAL ENDOWMENT: 12-QUARTER SMOOTHING

The 12-Quarter average asset calculation materially smoothed the highs and lows of the asset base, allowing the endowment to continue making meaningful distributions during times when other revenue streams (e.g., fundraising) were challenged. Subsequent declines in assets and distributions still would have been meaningful in the GFC and subsequent years.



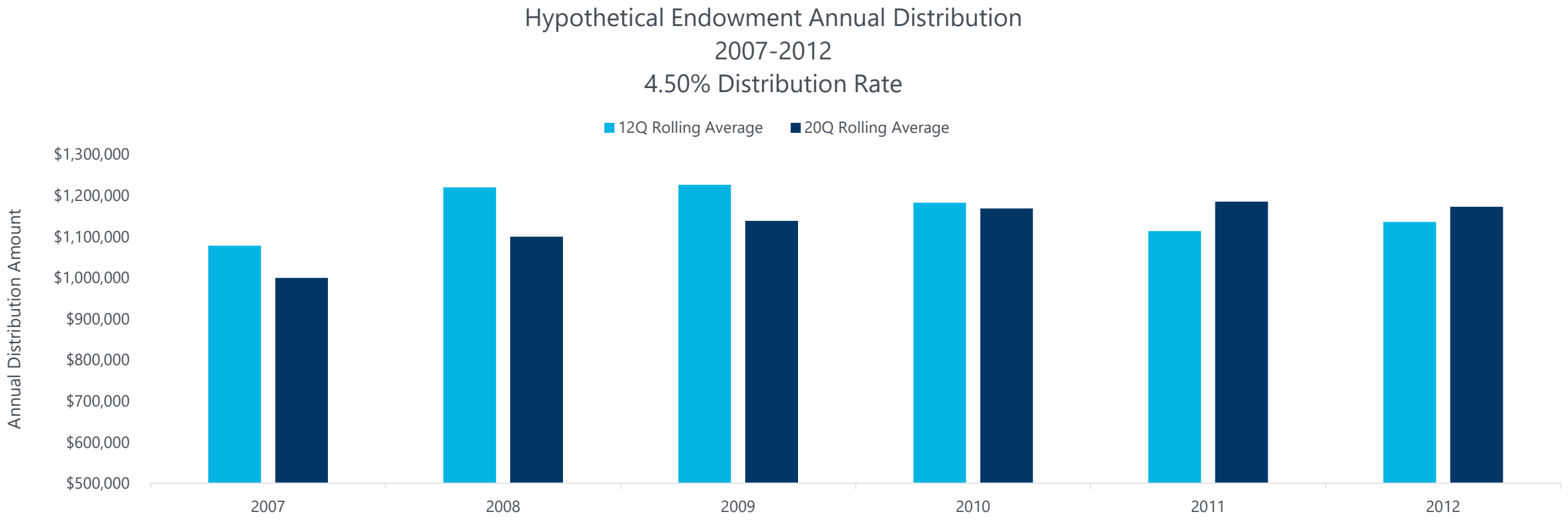
HYPOTHETICAL ENDOWMENT: 20-QUARTER SMOOTHING

The 20-Quarter average asset base calculation resulted in a smoother experience for the endowment. The average asset base (and distributions) would have been lower between the dot.com bubble and Great Financial Crisis; however that approach provided steadier support through the GFC and in the years immediately after when fundraising and raising tuition revenue was more challenging.



STRESS TEST SCENARIO (2007 – 2012)

Through the 2007 – 2009 Great Financial Crisis, the 20-Quarter smoothing would have steadily increased distributions just when tuition increases and annual fundraising were under the most pressure, providing a less correlated revenue stream. This scenario assumes a 4.5% distribution rate based on either 12- or 20-Quarter average assets.



DECISION-POINTS: 12-QUARTER VS. 20-QUARTER SMOOTHING

Both approaches have benefits and drawbacks, so it is important to consider the organization's business needs, desires of current and potential donors, and the role Endowment plays in the organization's revenue model.

By serving as another mechanism for managing volatility, the 20-Quarter smoothing method could allow an Endowment to take more market risk in pursuit of higher long-term returns.

Advantage	12-Quarter	20-Quarter
More quickly incorporates market performance	X	
More quickly incorporates new contributions	X	
Smooths distributions during extreme markets		X
Emphasizes near-term size of distributions	X	
Emphasizes long-term stability of distributions		X
Serves as another mechanism for managing volatility		X

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GROWING ASSETS

HYPOTHETICAL ASSET ALLOCATION SCENARIOS

While spending policy is an oft-overlooked lever in Endowment management, there is broad recognition that asset allocation serves as the pivotable decision point for influencing long-term appreciation and financial contributions of the Endowment to the organization. While asset allocation analysis is more art than many investment professionals would like to acknowledge, broad-stroke allocation analysis and Monte Carlo simulation can provide crucial guidance.

For this educational piece, we use three broadly differentiated allocation scenarios. Private Assets represents allocations of 15% to private equity and 15% to private credit.

Hypothetical Allocation	Equities	Fixed Income	Private Assets
100% Equity	100%	0%	0%
70% Equity + 30% Fixed Income	70%	30%	0%
70% Equity + 30% Private Assets	70%	0%	30%

RISK + RETURN ANALYSIS

The comparisons below rely on Syntrinsic's Long-Term Capital Markets ten-year return forecast for each asset class, while drawing on ten-year historic volatility and correlations. The results below represent the 50th percentile results from Syntrinsic's Monte Carlo simulation. Private Assets represents allocations of 15% to private equity and 15% to private credit. Manager alpha (positive or negative) and fees are not factored into these calculations.

Hypothetical Allocation	Forecast Ten-Year Return	Historic Ten-Year Return	Historic Ten-Year Standard Deviation	Blended Sharpe Ratio	Historic Ten-Year Max Drawdown
100% Equity	8.16%	8.98%	16.19%	0.40	-25.75%
70% Equity + 30% Fixed Income	6.94%	6.44%	12.60%	0.38	-23.94%
70% Equity + 30% Private Assets	8.64%	9.30%	12.69%	0.51	-18.41%

Historic ten-year period includes January 1, 2015 – December 31, 2024. For additional context and disclaimers regarding forecast returns, please refer to 2025 Capital Markets Forecast | Syntrinsic.

QUESTIONS

The variation amongst these three scenarios elevates several questions, such as:

1. Given materially lower forecast returns, why use fixed income in an Endowment, especially if one can manage volatility through the spending policy and other mechanisms?
2. While private assets have lower volatility than public equities due in part to how private assets are valued, how does one consider the other risks (e.g., illiquidity, leverage, expense, transparency etc.) of private assets?
3. While fixed income provides for lower volatility versus a pure equity portfolio, how does the ten-year max drawdown experienced by the 30% fixed income portfolio reflect fixed income's role as a risk mitigator?

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HYPOTHETICAL GROWTH OF ASSETS (4.5% SPEND)

Assuming the Endowment starts with **$50 million** in assets, this Monte Carlo simulation highlights the potential growth of assets over time assuming **4.5%** per year is distributed.

The Monte Carlo analysis considers 2,000 scenarios to reflect the uncertainty inherent in investments. The analysis is based on Syntrinsic's forecast returns, historic asset class volatility, and historic correlations between asset classes.

The 50th percentile result is considered representative of the most likely scenario. The other percentile indicate the wide range of possibilities across the scenarios.

	95th	50th	5th
10 Year			
100% Equity	185.8m	**77.6m**	32.1m
70% Equity + 30% FI	137.0m	**68.9m**	34.7m
70% Equity + 30% Privates	162.2m	**81.5m**	41.3m
20 Year			
100% Equity	393.5m	**110.7m**	31.8m
70% Equity + 30% FI	236.0m	**86.6m**	41.3m
70% Equity + 30% Privates	330.8m	**122.5m**	47.0m

Sources: For forecast returns, please refer to 2025 Capital Markets Forecast | Syntrinsic. Historic volatility and historic asset class correlations are based on actual broad index performance. The Monte Carlo simulation is conducted using Morningstar Direct. These calculations do not consider investment manager alpha (positive or negative) or the impact of investment fees.

MONTE CARLO: CUMULATIVE DISTRIBUTIONS (4.5% SPEND)

Assuming the Endowment starts with $50 million in assets and that 4.5% per year is distributed, this analysis estimates how much could be distributed over time in the median case (50th) as well as "best" (95th) and "worst" case (5th) scenarios.

	95th	50th	5th
10 Year			
100% Equity	6.3m	**3.2m**	1.6m
70% Equity + 30% FI	5.0m	**2.9m**	1.7m
70% Equity + 30% Privates	5.6m	**3.3m**	1.9m
20 Year			
100% Equity	14.3m	**4.5m**	1.5m
70% Equity + 30% FI	9.2m	**3.7m**	1.5m
70% Equity + 30% Privates	12.1m	**4.9m**	2.0m

Sources: For forecast returns, please refer to 2025 Capital Markets Forecast | Syntrinsic. Historic volatility and historic asset class correlations are based on actual broad index performance. The Monte Carlo simulation is conducted using Morningstar Direct. These calculations do not consider investment manager alpha (positive or negative) or the impact of investment fees.

MONTE CARLO: TOTAL VALUE COMPARISON (50TH PERCENTILE)

This analysis considers the combination of distributions and growth to develop a rough approximation of "total value."

This data represents an imperfect comparison because the time value of money affects the comparison. For example, a dollar distributed today is worth more than a dollar in the portfolio 20 years from now because of the corrosive impact of inflation.

	4.5% Cumulative Distributions	4.5% Spend Ending Value	4.5% Spend Total Value (Dist+End)
10 Year			
100% Equity	**3.2m**	**77.6m**	80.8m
70% Equity + 30% FI	**2.9m**	**68.9m**	71.8m
70% Equity + 30% Privates	**3.3m**	**81.5m**	84.8m
20 Year			
100% Equity	**4.5m**	**110.7m**	115.2m
70% Equity + 30% FI	**3.7m**	**86.6m**	90.3m
70% Equity + 30% Privates	**4.9m**	**122.5m**	127.4m

Sources: For forecast returns, please refer to 2025 Capital Markets Forecast | Syntrinsic. Historic volatility and historic asset class correlations are based on actual broad index performance. The Monte Carlo simulation is conducted using Morningstar Direct. These calculations do not consider investment manager alpha (positive or negative) or the impact of investment fees.

PROBABILITY OF ACHIEVING TARGET RETURN (6.5% PER YEAR)

	3 Years	5 Years	10 Years	15 Years	20 Years
100% Equity	56.1%	59.1%	62.9%	65.5%	67.2%
70% Equity + 30% FI	51.5%	53.5%	54.6%	55.6%	56.4%
70% Equity + 30% Privates	60.3%	64.4%	70.0%	74.2%	76.9%

The Monte Carlo Analysis also enables us to forecast the likelihood that the portfolio can earn its target return of 6.5% per year (CPI + 4.5%, assuming 2% long-term inflation). While the impact of asset allocation on that probability is less material over a three-year time horizon, it becomes increasingly meaningful as the portfolio compounds over two decades.

Over twenty years, the likelihood of achieving 6.5% per year improves dramatically when eliminating fixed income and then still further when adding private assets. While improving the odds of achieving the target return, it also is important to consider liquidity, expenses, operational impact, and other factors.

Sources: For forecast returns, please refer to 2025 Capital Markets Forecast | Syntrinsic. Historic volatility and historic asset class correlations are based on actual broad index performance. The Monte Carlo simulation is conducted using Morningstar Direct. These calculations do not consider investment manager alpha (positive or negative) or the impact of investment fees.

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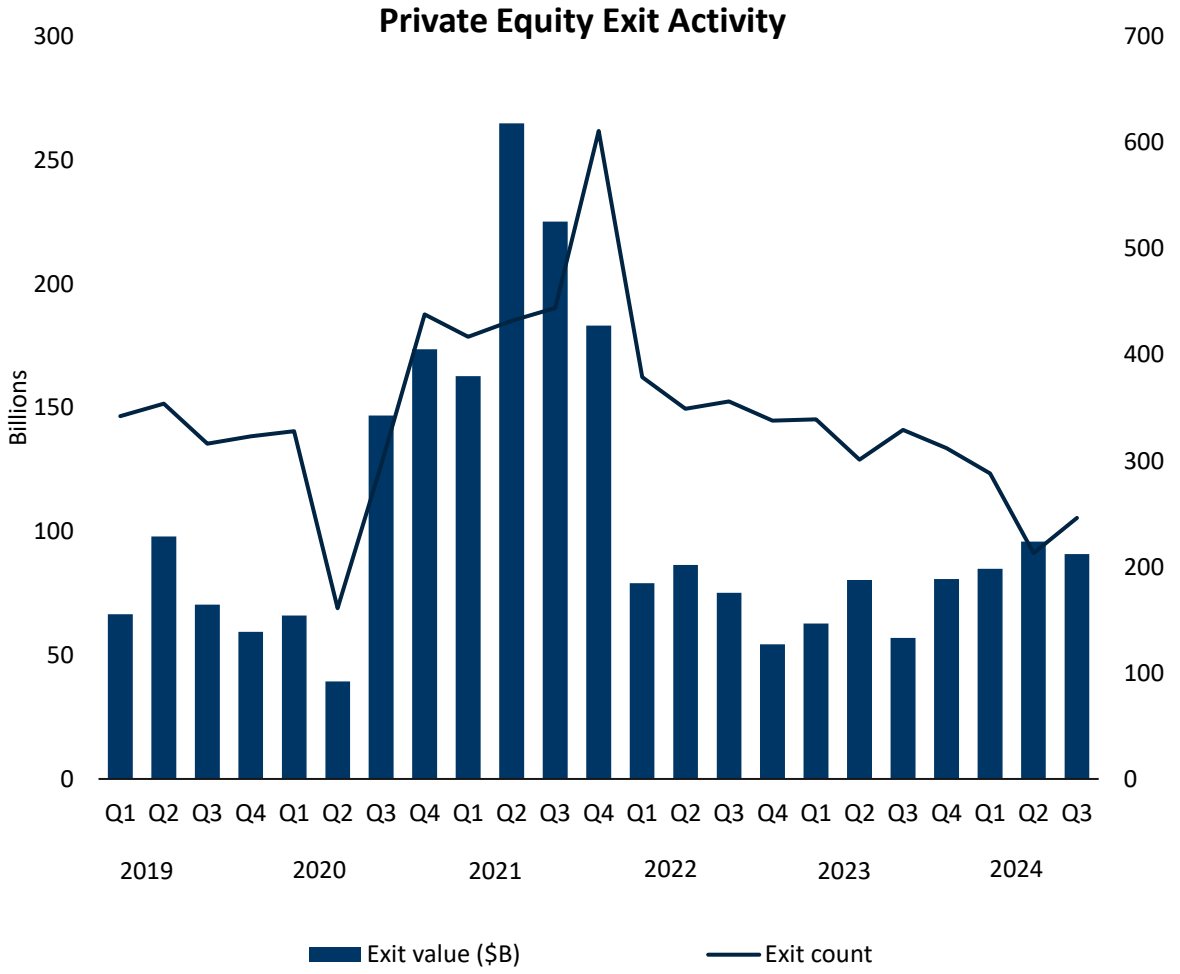
CONSIDERING PRIVATE ASSETS

PRIVATE EQUITY

Interest rate increases in late 2022 and throughout 2023 ground the machinations of the private equity market to a near-halt with a decline in deals, exits, fundraising, valuations, and distributions leading to negative cash flows for limited partners.

However, there were signs of improvement in 2024 with an increase in deal count and value, valuations, fundraisings, and exit value while exit count was relatively flat leading to a continued lack of liquidity and distributions which continued to benefit the secondary market.

The prospect of further interest rate cuts in 2025 should be helpful. All else being equal, it would lead to an improved exit environment by supporting merger and acquisition activity and initial public offerings.



Source: Pitchbook

PRIVATE DEBT: DIRECT LENDING

Most private loans use SOFR as a base for calculating interest payments. Thus, the rising interest rate environment in 2022-2023 boosted yields for most private debt.

With the rapid rise in interest rates, private credit lenders had banner years in 2023 and 2024 as they were able to earn yields on new loans of 10 - 12%.

Even with higher interest rates, we have not seen a material deterioration in private debt portfolio companies' revenue, EBITDA, or interest expense ratios in 2024, at least amongst managers focused on senior secured lending.

Additionally, defaults remain at low levels though they have been increasing modestly including payments-in-kind. We would expect portfolio companies' financials to improve further in 2025 under a soft-landing scenario.

Year Over Year Change in Q3 2024

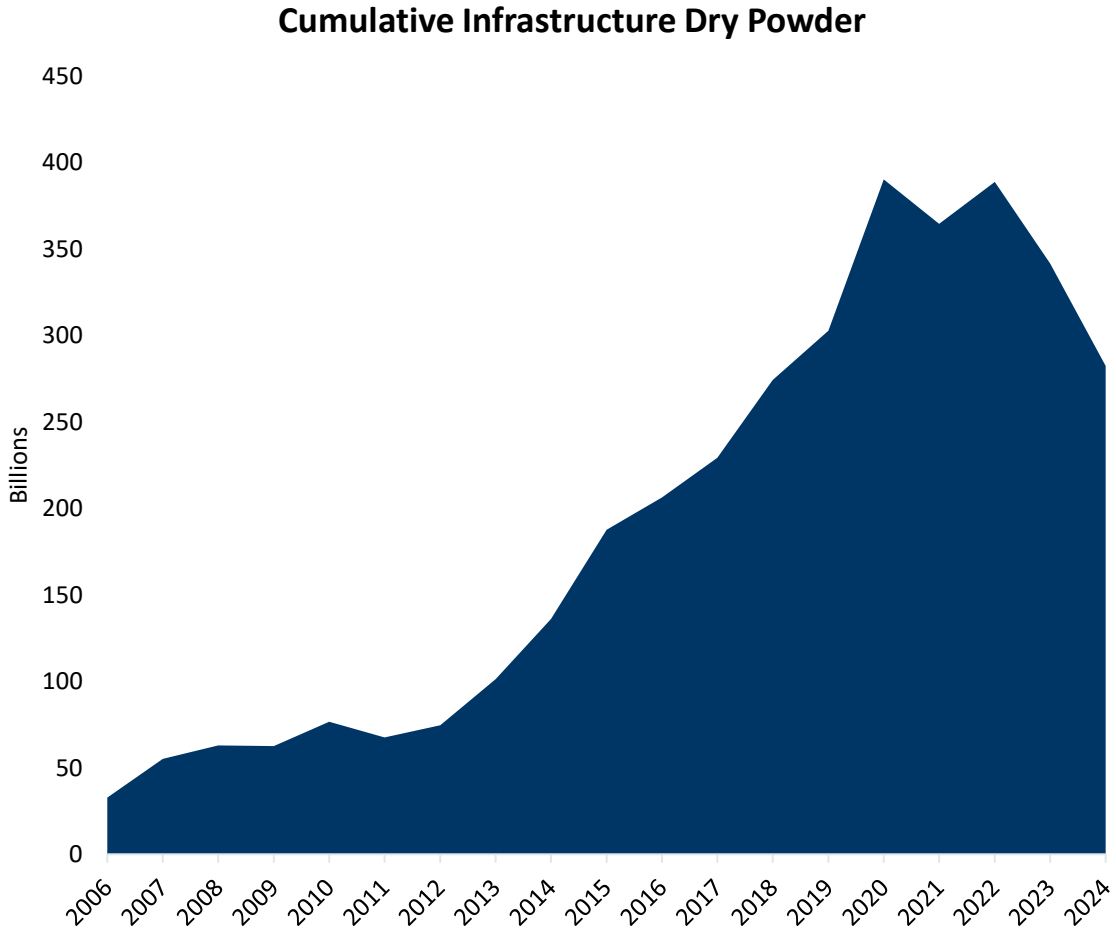
Year-Over-Year Growth	Revenue	Earnings
Q3 2024	5.1%	7.9%
Key Sectors Q3 2024 (YoY)	Revenue	Earnings
Consumer	4.3%	-1.2%
Healthcare	4.3%	8.3%
Industrials	1.8%	2.6%
Technology	9.0%	13.9%

Source: Golub Capital Altman Index

INFRASTRUCTURE

We began to recommend private infrastructure investments in client portfolios in early 2024. Over the long term we continue to believe there will be increasing importance and greater investment accessibility for private infrastructure assets given strong competitive positioning, positive secular and megatrends along with the benefits of potential inclusion in client portfolios.

Shorter term, the low levels of dry powder means there is less competition for deals with the ability to deploy capital at lower valuations in a declining interest rate environment. In turn, Syntrinsic is maintaining our near-term sentiment of Neutral/Positive.



Source: Pitchbook

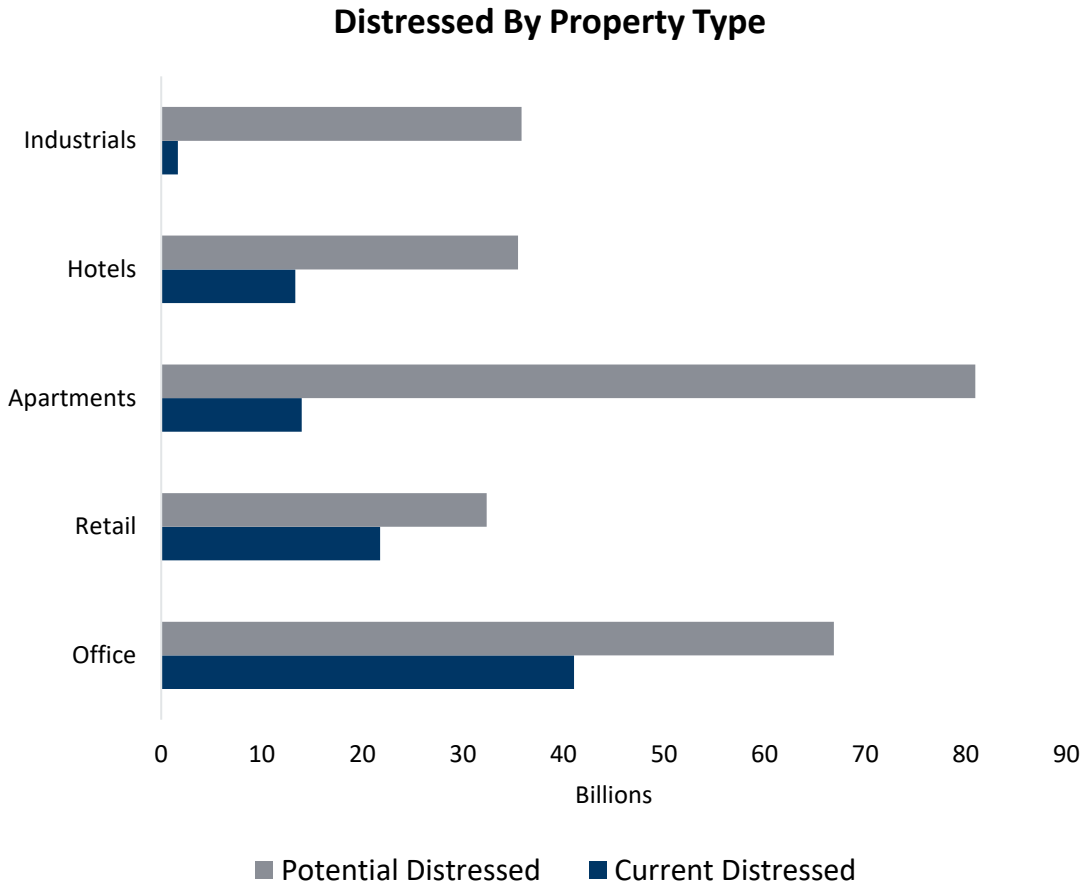
COMMERCIAL PROPERTY HEADWINDS

From March 2022, when the Fed started its rate-hiking cycle, to December 2023, commercial property values in aggregate have declined significantly.

In the past, net operating income and valuations typically move in the same direction. Today, there is a dislocation between NOI growth and valuations suggesting there is an opportunity to begin investing in the space as valuations should converge to NOI.

However, we remain concerned about the impending debt maturity wall. Between now and 2027 more than $2.2 trillion in commercial debt is coming due. As of 2Q24, $92 billion in commercial property was in distress with an additional $251 billion in potential distress particularly in office and apartments.

Source: Bloomberg



Source: Wall Street Journal

OTHER ALTERNATIVE ASSET CLASSES

Syntrinsic regularly considers the use of other diversifying asset classes to strive to improve the likelihood of achieving long-term return and risk management objectives. While we have included dedicated investments to both commodities and hedge fund strategies when conditions merited, heading into 2025 we do not recommend either asset class.

Hedge Fund Strategies (Neutral)	Commodities (Neutral/Negative)
While the prospect of further rate cuts makes fixed income a less clear alternative to hedge fund strategies, we continue to see better relative opportunities in other asset classes due in part to the high active manager risk, high fees, and cyclicality of hedge fund strategies.	We prefer to invest in commodities when long-term fundamentals are supportive, which they are not. Using commodities to hedge against short-term risks can be expensive given how the assets often perform outside of a crisis.

DISCLAIMERS

The information in this document is not intended as a recommendation to invest in any particular asset class or strategy or as a promise of future performance. The opinions expressed in this document are the combined work of Syntrinsic's teams. Our research comes from a multitude of sources, but any opinions expressed are our own.

Given the complex nature of risk-reward trade-offs involved in portfolio construction, we advise clients to consult with financial professionals on specific investment-related decisions. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. In addition, past performance is not a guarantee of future results.

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