2018 AAM Investment Conference

Nicole Delahanty, FSA, CIMA
Managing Director, Pension Lead and Defined Contribution Co-Lead

Pavilion Advisory Group Inc.

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AAM
Insurance Investment Management

Institutional Investor Trends presentation

Goal: Share investor perspectives from Pavilion’s five practice areas including asset allocation trends, implementation themes, investor challenges and market opportunities

PRACTICE AREAS

- Healthcare
- Pension
- Defined Contribution
- Insurance
- Endowments & Foundations

Clients 336

Worldwide AUA $685 billion

All data as of June 30, 2017- unless otherwise specified, includes the combined resources of Pavilion Advisory Group® and Pavilion Alternatives Group®.

Endowment & Foundation Perspectives

Investment challenge for endowments and foundations

Prospective Return Challenge

- Slow economic growth in much of the developed world that potentially limits returns from equities.
- Low interest rate environment that limits returns from once “conservative” fixed income investments.

Annual spending rate	=	5%
Estimated annual inflation rate	=	2%
Minimum return to preserve intergenerational equity	**=**	**7%**

How is it possible to increase the likelihood of maintaining and growing intergenerational equity?

NACUBO – Commonfund Study of Endowments

- Asset allocation varied significantly by portfolio size, consistent with past years' surveys
  - No major year-over-year shifts from prior year

- Alternative investments:
  - Alternatives were over half of the largest endowments' assets; the allocation falls with size
  - Consistent with previous years' studies, among alternative investment strategies, the largest allocation was to marketable alternatives (hedge funds)

allocation in %	>$1 billion	$501m-$1b	$101m-$500m	$51m-$100m	$25m-$50m	<$25m
Domestic Equities	13	20	27	33	37	42
International Equities	19	22	22	22	19	16
Total Equities	32	42	49	55	56	58
Fixed Income	7	9	13	17	20	24
Alternative Strategies	57	42	32	22	17	11
Cash/Other	4	7	6	6	7	7

Sources: 2017 NACUBO-Commonfund Study of Endowments (June 30, 2017)

Endowment and Foundation sponsors taking a holistic perspective

	Components
Asset Allocation Structure	▪ Use all the tools in the toolkit: long-only, long/short, private, etc., across asset classes
Manager Selection	▪ Active managers typically used within select asset classes ▪ Flexible, less benchmark-oriented managers typically used, recognizing potential tracking error but also potential alpha
Opportunistic Positions	▪ Make deliberate shifts when there is high conviction in either a fundamental and sizable dislocation in relative pricing, or new development that is early in the process of capital formation
Risk Controls	▪ Use alternative investments selectively, assuring full risk transparency and retaining control over asset allocation ▪ Consider hedges only when appropriately priced

Market trends alternative strategies implementation

- Alternatives can either enhance returns or reduce risk; achieving both simultaneously has been difficult
- Long/Short Equity has become more difficult to justify with the advent of more liquid, lower cost, lower volatility strategies (defensive equities)
- Liquidity budgets tend to be focused on private capital strategies over hedge fund allocations
- Rationalization of hedge funds programs with high conviction managers, and concentrations with specific portfolio goals and objectives

Direct Alternatives Opportunity Dashboard

Hedge Funds	Fundamental Equity	Quantitative Equity	Activist Equity	Distressed Credit
	Long/Short Credit	CTA	Global Macro	Merger Arbitrage
Private Capital	U.S.	Europe	Developed Asia	Emerging
	Venture	Buyout	Direct Lending	Special Situations Debt
Real Estate	U.S.	Europe	Asia	Emerging
	REITs	Core	Value Add	Opportunistic
Real Assets	U.S.	Europe	Asia	Emerging
	Infrastructure	Renewable Energy	Timber	Traditional Energy

Source: Pavilion Advisory Group®. Dashboard colors indicate relative attractiveness and market opportunities. Green indicates positive outlook and opportunities while red indicates negative outlook and opportunities

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Trends in hedge fund investing

- **Data-driven investing** is skewing the edge away from the average long / short equity generalists.
- The prevalence of "smart beta" and index funds are influencing stock prices and stock correlations, which has **reduced the dispersion among stocks** (higher correlation).
- Long / short equity managers need to maintain a discernible information advantage versus other market participants and fast quantitative algorithms.
- Activism can play a role, but investors need to be aware of **fees, volatility,** and the interaction of the two.
- The shifting competitive landscape in equities requires long / short equity hedge fund investors to find adaptable managers and / or be willing to have healthy **turnover of underlying managers at 10-20% per year**.

Forward-looking themes

- Potential value in **sector and regional specialists** in which their deep, specialized analysis cannot be easily outsourced to machines. For generalist long / short equity managers, the bar has been reset much higher.
- **Merger arbitrage** continues to be a compelling source of differentiated return.
- **Distressed debt** and **long/short credit** continue to play a role in hedge fund portfolios, but this should be implemented in a diversified fashion.
- **Manager diversification** across alpha sources and lower-volatility strategies remains important given later stage business cycle.

Private debt – historical perspective

Stable Absolute Returns

Historically **consistent performance across** various economic environments

Portfolio Diversifier

Provides access to a segment **typically not captured** by more liquid debt strategies and offers **largely uncorrelated returns** compared to traditional asset classes

Large Opportunity Set

Market dynamics and regulatory changes have led to a **larger pool of managers** to choose from

Interest Rate Hedge

Typically structured as floating rate over LIBOR (with a floor) to **hedge against rising interest rates**

Attractive Risk / Return

Offers downside protection and a **broad range of opportunities** to meet investors' specific risk/return objectives

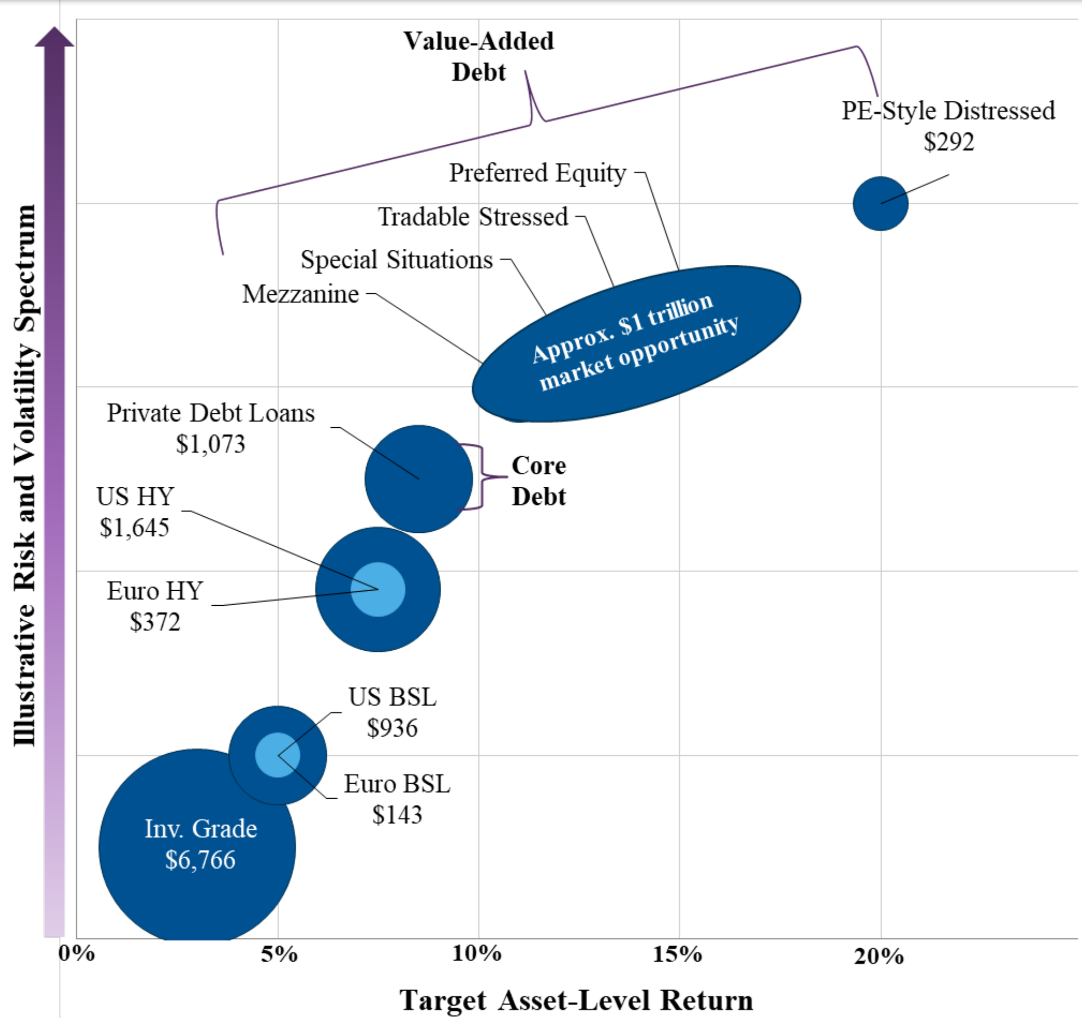
J-Curve Mitigation

Returns predominantly based on contractual **current income** (coupon and fees); **reduces the J-curve effect**

Past performance is no guarantee of future results.

Global debt – market opportunity

Global Debt Risk and Return ($ in Billions)



Commentary

- The non-investment grade global debt market represents ~$5.5 trillion (vs. investment-grade ~$6.8 trillion) and is growing fast
- Of the non-investment grade market, Global Private Debt ("GPD" or "Private Debt") strategies across the Core and Value-Added spectrums represent approximately $2.4 trillion of opportunity
- The different risk-return profiles within Private Debt strategies allows for investors to create a diversified portfolio to manage risk, although risk is a relative measure

Note: As of December 2016.

Source: Carlyle, SIFMA for Investment Grade – assumes Investment Grade comprises ~80% (10-year IG average of total corporate bond issuance) of outstanding corporate bonds. LSTA for US and European broadly-syndicated loans and high yield; Private Debt Loans represents total expected middle market US maturities (Sponsored and Non-Sponsored) from 2016E – 2020E (Thompson Reuters as of Q1 2016); PE-Style Distressed reflects the face value of BAML CCC & Lower US High Yield Index as of September 2016.

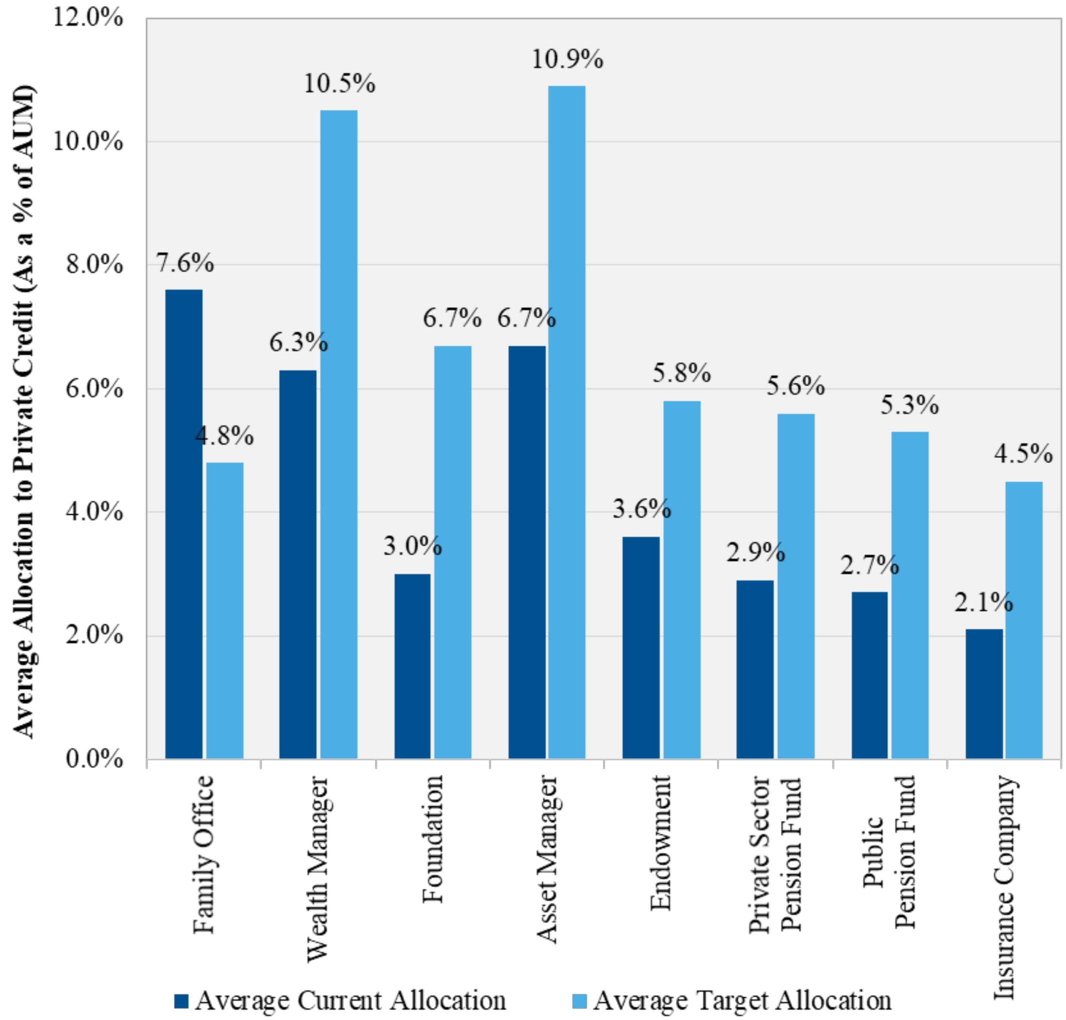
Private debt characteristics

Private Debt Strategies – Characteristics				
	Core Debt	**Value-Added Debt**		
	Direct Lending – Senior	**Direct Lending – Subordinated**	**Special Situations**	**Opportunistic**
Return Drivers	Cash coupon, fees, leverage	Cash coupon, PIK, fees, warrants/equity, leverage	Cash coupon, capital appreciation, make-wholes, fees, equity	Cash coupon, capital appreciation, make-wholes, fees, equity
Investment Period	2 to 3 years	4 to 5 years	2 to 4 years	2 to 4 years
Fund Term	5 to 8 years	8 to 10 years	5 to 8 years	5 to 8 years
Leverage	0.0x to 2.5x	0.0x to 1.5x	Not typically used, but may be used at asset-level	Not typically used, may be used at asset-level
Management Fee	1.0% to 1.5% on invested or contributed	1.5% to 2.0% on committed stepping down to net contributed/invested	Same as subordinated, but some managers solely charge on invested	Same as subordinated, but some managers solely charge on invested
Preferred Return* / Carried Interest	6% to 7% / 15%	8% / 20%	8% / 20%	8% / 20%

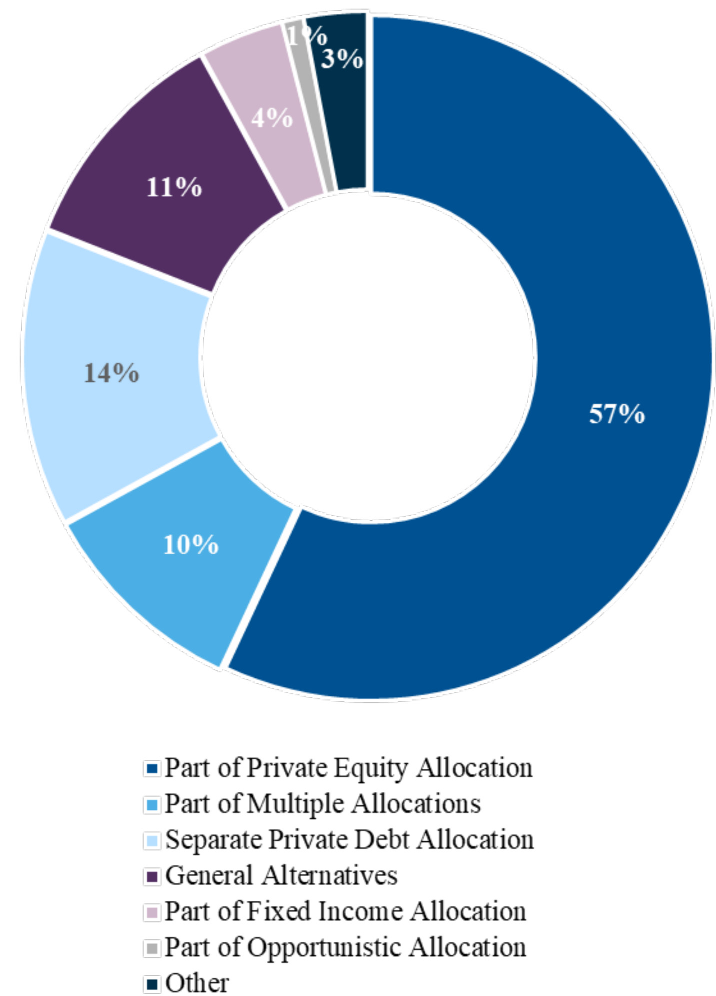
**Preferred Returns are for informational and illustrative purposes only, there can be no guarantees of returns and whether they will be in the range listed. Returns fluctuate based on the market cycle, market segment, amount of leverage employed, region and manager.*

Private debt investor allocations

Institutional Investors' Current and Target Allocations to Private Debt by Investor Type



Private Debt Investors by Source of Allocation

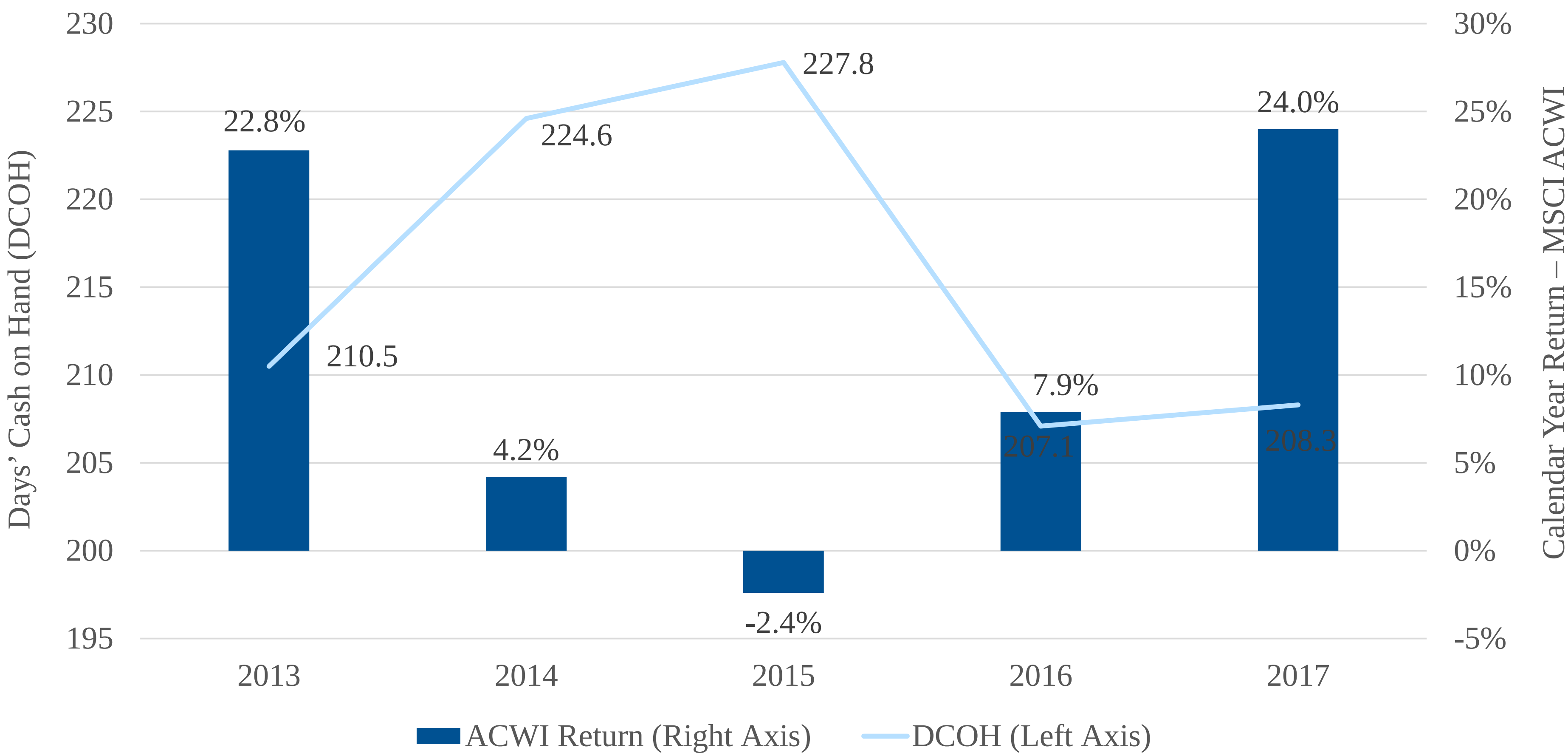


Source: 2018 Preqin Global Private Debt Report (January 2018).

Healthcare Entities: Operating Assets

Challenges for healthcare

Current outlook: Strong returns in 2017, but little balance sheet growth as margins are challenged by competitive pressures (declining reimbursement rates, shift to outpatient care, and growth in share of government payors, expense growth due to labor shortages and supply costs).



Sources: ACWI returns from Factset; Days Cash on Hand medians from Moody's report dated April 23, 2018: "Not-for profit and public healthcare – US: Preliminary medians underscore negative sector outlook."

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Healthcare investment strategy responses to current challenges

- Increased emphasis on **downside risk and risk budgeting**
  - Enterprise risk analysis to stress test key ratios
  - Fewer systems with "endowment" approach to investing

- Optimizing **larger overall allocation to bonds and cash**
  - Shorter duration exposure to credit, including hedge fund structures with off-the-run issues
  - "Clean duration" to provide diversification to growth assets

- **Liquidity barbell**
  - Average hedge fund allocation has been reduced
  - Increased allocations to private capital strategies to strive for higher returns

Pension plan Perspectives: Corporate vs. Public

Investment challenge for pension plans

	Corporate Pension Perspective	Public Pension Perspective
Perspective	▪ Focused on funded status and "de-risking" ▪ Accelerated contributions in 2018 due to tax optimization ▪ Reduced emphasis on expected return due to new accounting rules	▪ Liabilities measured based on long-term expected portfolio return ▪ Long-term commitment to pensions
Return hurdle	▪ X% spread over discount rate (yield on AA corporate bonds)	~7.5%[1]
Challenges	▪ Need for liquidity to facilitate de-risking, and competing hedging/growth goals	▪ Governance structure / ability to be nimble

[1] *Source: Milliman's 2017 Public Pension Funding Study of the 100 largest U.S. public pension plans.*

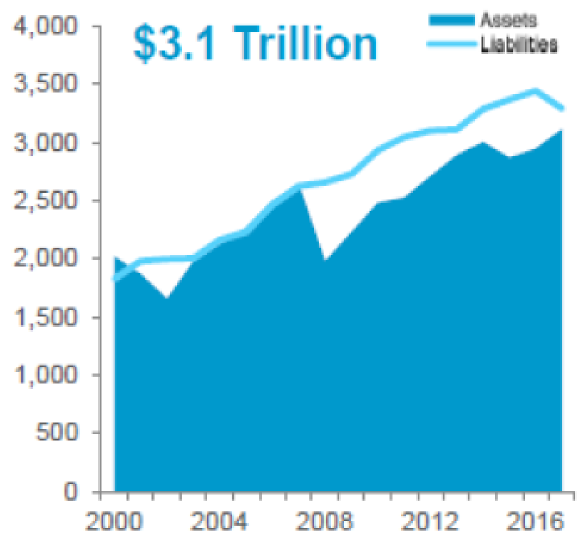
Pension investment strategy responses to current challenges

- **Customized Liability Strategies Investing (LDI)** continue to be in demand
- **Reduction of hedge fund exposures** to facilitate de-risking and due to maturity of glidepath
- Re-thinking LDI, including **LDI ”plus” strategies** and segmentation of duration and credit risk factors to help:
  - improve efficiency through overlay strategies
  - incorporate dynamic protecting strategies
  - incorporate semi-liquid credit securities to improve risk-adjusted returns
- **Opportunistic selling of illiquid private capital funds into secondary market** for those nearing end game termination vs. maintenance of illiquid funds for the benefit of another qualified Defined Contribution program

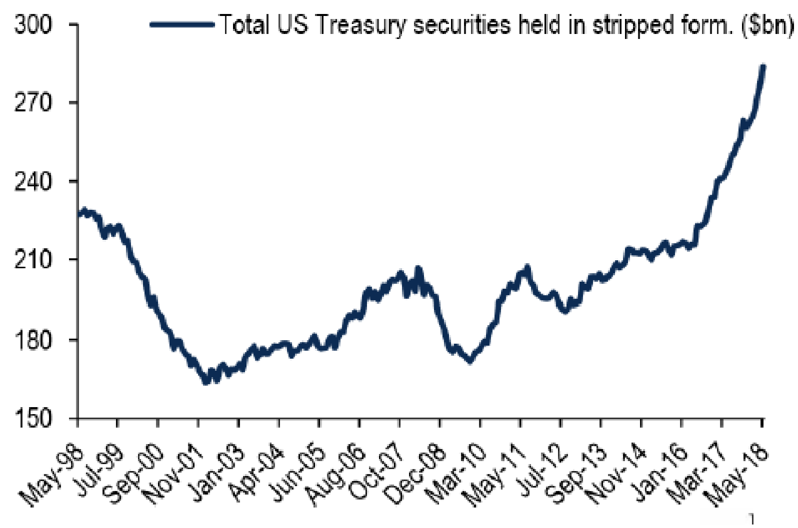
Impact of accelerated LDI investments on Treasury curve

- **De-risking is still a high-growth market** – The majority of return-seeking assets (approximately $1.7 trillion) will potentially move into LDI solutions over the next 10-20 years[1]
- The 3-month period March-May is by far the **heaviest on record for outstanding Treasury STRIPS**. This suggests the continuation of pension assets rotating into the back-end of the corporate bond market.
- Fed normalization, still-low term premium, and ongoing LDI demand, has spurred a consensus projection of **further flattening** (J.P. Morgan estimates the 2s/30s curve reaching 30bp by YE 2018[3])

Corporate defined benefit pension assets ($ billions)[2]



Increased STRIPS supply aligns with pension demand[2]



[1] Legal & General Investment Management America, as of May 31, 2018
[2] The Investment Company Institute, Towers Watson, Cerullli, US Census, BAML, US Treasury and LGIMA, as of May 31, 2018
[3] J.P. Morgan , Fixed Income Outlook, June 18, 2018

Defined Contribution Perspectives

Investment challenge for defined contribution plans

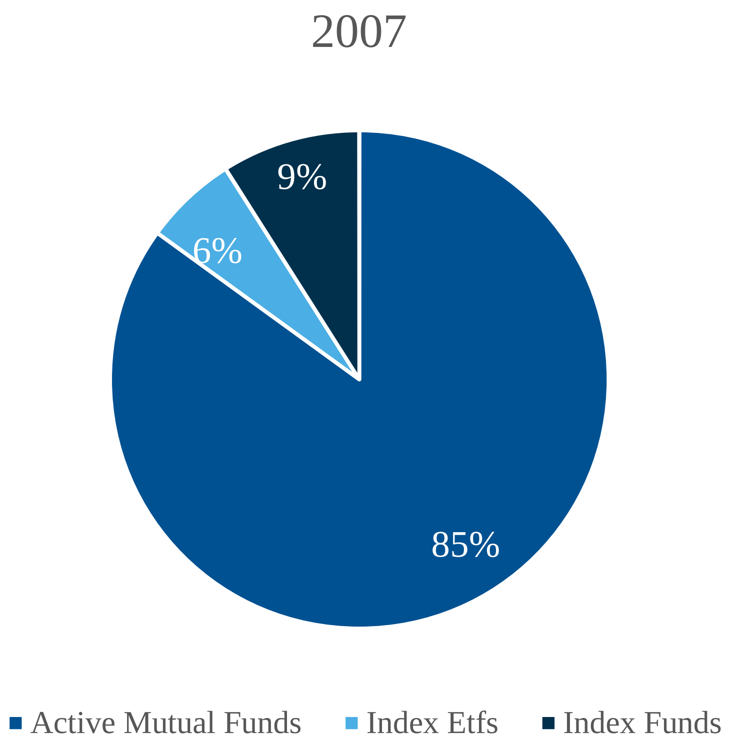
- **Fiduciary risk management** at the forefront:
  - 30 ERISA excess fee lawsuits were filed during 2017, compared with 80 filed over the past 10 years[1]
  - Results have contributed to almost **$1 billion in ERISA class action settlements**[2]
  - Committees are focused on fiduciary best practices and documentation of best practices and retention of service providers through a competitive bidding process

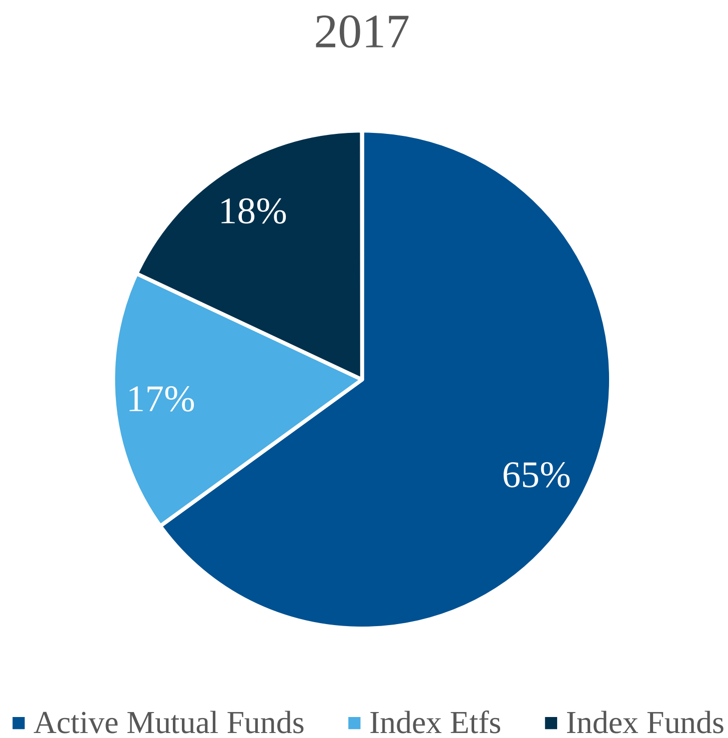
- Strategic initiatives include **retirement readiness**, **workforce planning**, **HSA integration:**
  - Plan design / auto-features aligned with retirement readiness goals
  - Inclusion of a Passive Investment Tier
  - Inclusion of a "Retirement Income" Tier
  - Rationalization of Company Stock
  - Evaluation of managed accounts within or around a Target Date Fund Solution

[1] *https:/www.groom.com/resources/plan-sponsor-fee-litigation-cases-rise/*
[2] *http://www.seyfarth.com/dir_docs/publications/2018_Workplace_Class_Action_Report.pdf*

Influence of Defined Contribution industry on market dynamics[1]

- Much of the growth in index funds over the past decade has been concentrated in funds that invest in domestic equities
  - 44 percent of inflows into index funds went into U.S. equity funds
  - U.S. equity index funds accounted for 63 percent of index fund assets at year-end 2017





Will earnings, or the growing trend toward passive management, drive valuations?

[1] https://www.ici.org/pdf/2018_factbook.pdf

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