



Q3 2008

STANDISH

## Liability Driven Investing (LDI)

### LDI Experience

- Over 30 years of managing long-duration and custom-duration portfolios
- Team comprised of actuaries and investment professionals.
- \$22 billion combined AUM\*

### Funded Status Tracker



- The funded status tracker provides a year-to-date (as of 9/30) estimate of the change in a typical plan's funded status on a reporting (PPA or PBO) basis.

### About Standish\*

- Founded in 1933
- Dedicated exclusively to fixed income
- \$199 billion under management
- 110 investment professionals
- 49 CFA charterholders
- Domestic, regional, and global mandates
- Over 400 clients worldwide

\* As of 6/30/08. The Firm also includes assets managed by Standish personnel acting as dual officers of The Dreyfus Corporation and The Bank of New York Mellon, which are other subsidiaries of The Bank of New York Mellon Corporation.

For more information about any Standish product, please contact:

**Peter Austin**

**+1-617-248-6085**

**info@standish.com**

### Rationale

- Proper alignment of plan assets and liabilities can reduce financial volatility and still meet portfolio return expectations.

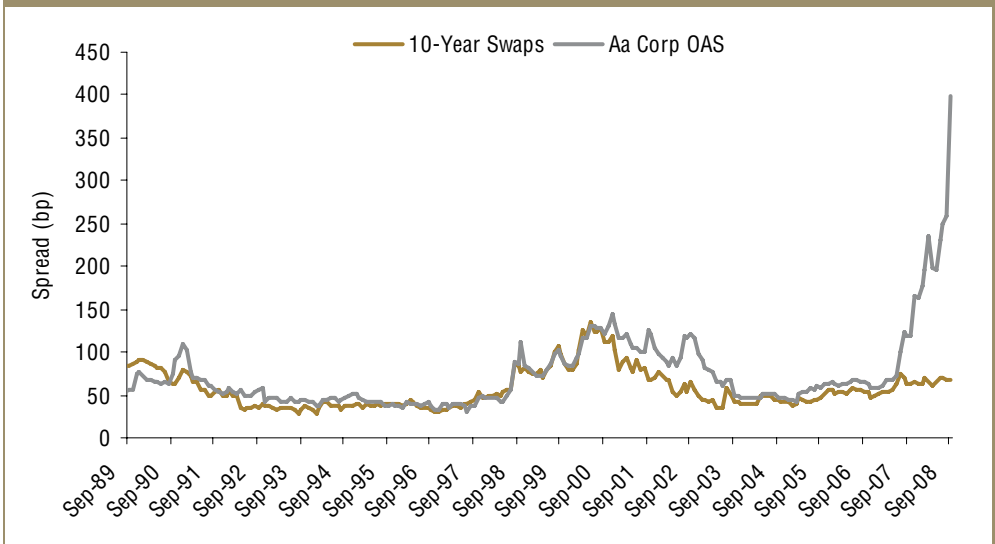
### Objectives

- Develop and implement customized fixed income solutions to better match client's own assets and liabilities.
- Provide client-specific reporting to monitor both plan funded status and manager tracking error against liability benchmark.

### An Historic Opportunity

- Wide credit spreads have created the most LDI-friendly environment in modern bond market history.

### Historical Spreads to Treasury



Source: Bloomberg, Lehman Brothers as of September 30, 2008

- Pension plans have begun to take advantage of wide credit spreads by moving toward customized long duration portfolios.
- Standish tailors benchmarks to provide Aa-average credit quality exposure and align with the PPA yield curve.
- Specific combinations of the Lehman Long Credit and Long Government indices meet the appropriate duration and quality targets.

## Representative LDI Mandates

Examples of strategies devised by Standish to meet client and consultant LDI needs:

1

**Client need:** Client wished to take advantage of wide credit spreads and extend portfolio duration.

**Standish solution:** Standish worked with the client and its consultant to design a fixed income portfolio that met the consultant-directed interest rate risk hedging requirements (a 50% hedge) while achieving the sector exposures and quality levels needed to mirror the PPA yield curve.

2

**Client need:** Client desired a full interest rate hedge while preserving current plan asset allocation.

**Standish solution:** After considering the tracking error associated with the swap markets compared to corporate liability measurements, the client and Standish collaborated to implement a swap/swaption portfolio and to ease into the interest hedge over time.

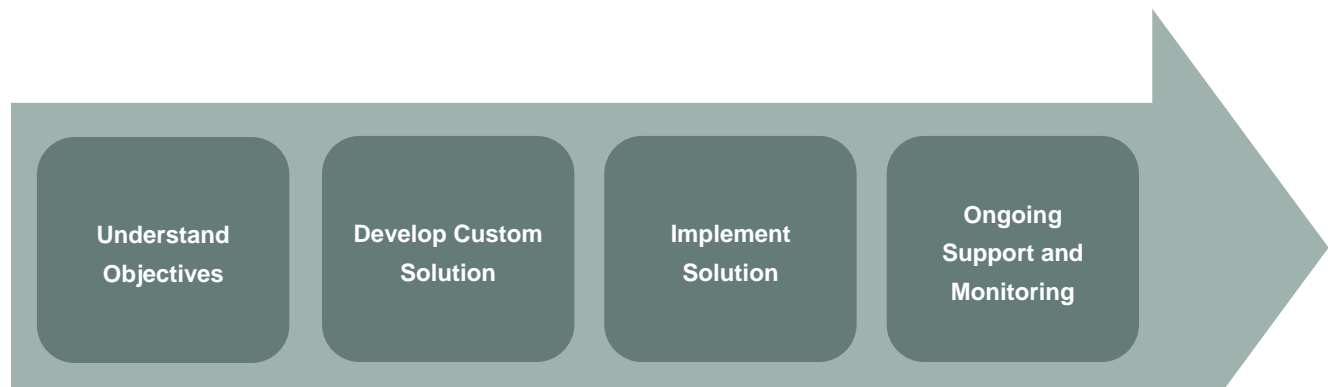
3

**Client need:** Client desired an overall reduction in volatility of funded status.

**Standish solution:** Standish worked with the client and its consultant on asset allocation strategy, resulting in a reallocation from a 70% equity / 30% fixed income portfolio to a 25% absolute return/ 75% fixed income portfolio. Implementation involved a separate account comprised of high quality corporate bonds and STRIPS with a custom duration benchmark.

## Standish LDI Process

Standish partners with clients and consultants to customize LDI solutions based on client objectives.



- Market-based liability selection
- Interest rate risk hedge levels
- Value-at-Risk targets

- Duration target
- Credit risk exposure target
- Quality range
- LDI analysis

- Treasury or corporate hedge
- Overlays
- Swap long duration funds
- Active / passive

Custom reporting:

- Monthly or quarterly
- Liability estimates
- Liability returns
- Duration analysis
- Interest rate hedging levels
- Liability IRRs (discount rates)