TCDRS Web Conference: *2008 Market and Its Impact*

February 11, 2009

Moderator - John Jagou

John is a Employer Services representative for TCDRS. He travels the state and speaks to both members and governing boards about their retirement plans, occasionally in Spanish. Prior to joining TCDRS, John spent four years in the financial services division of the Texas Association of School Boards, where he assisted public entities in the areas of cash management, investments and financing. He graduated from Austin College with a bachelor's degree in business administration and French.

Welcome!

Chairman - Judge Robert Eckels

Judge Eckels has been a member of the TCDRS Board of Trustees since 2003 and has served as chairman since 2004. He was reappointed to the board in 2008 as a Harris County retiree. As County Judge for Harris County, he oversaw the executive, legislative and judicial functions of a county that is home to more than 3.7 million residents. Prior to being County Judge, he served in the Texas legislature for 12 years. Currently, he is a partner with Fulbright & Jaworski L.L.P.

TCDRS – Serving Texans

We are governed by the Texas Legislature and overseen by an independent board of trustees

- Who we serve
  - ★ 585 employers – including 252 counties and 333 districts. Over 190,000 Texans are part of TCDRS
- How our plan works
  - ★ Each employer chooses its own set of benefits and funds its own plan
- Employers benefit from economies of scale
  - ★ Employers share advantages of pooled investment management and administration costs
- Our current assets
  - ★ Estimated to total $12.2 billion as of Dec. 31, 2008

Investment Officer - Paul Williams

Paul has served as TCDRS' Investment Officer since June 1999. Prior to joining TCDRS, Paul served in various positions in state government, including Deputy Treasurer of the State of Texas and Chief of Staff for Gov. Ann Richards. He also served as a member of the State Board of Insurance. Paul's background includes work in public accounting and financial services.

TCDRS Portfolio Objectives

- Maintain stable costs for employers and stable benefits for employees by achieving an 8% return over a long time horizon
  - 30 year or longer investment horizon

- Achieve return with an acceptable level of risk

- Balance short-term risk (volatility) against risk of not achieving target return

TCDRS 2008 Asset Class Returns*

Portfolio Return -29%

$4.8 - $4.9 billion loss

Emerging Market Stocks	-52.7%
Developed International Stocks	-42.6%
REITS	-41.7%
U.S. Stocks	-37.2%
Hedge Funds	-25.4%
High-Yield Bonds	-22.9%
Investment Grade Bonds	-1.4%
TIPS	1.3%

*Preliminary Estimates

TCDRS 2008 Portfolio Risk & Return Assumptions

Expected Return	**8.0%**
Expected Risk	**10.6%**

- 67% of the time, return expected to be between -2.6% and 18.6%
- 95% of the time, return expected to be between -13.2% and 29.2%
- 99.5% of the time, return expected to be between -23.8% and 39.8%

-29% return for 2008: less than 1 in 1,000 probability

TCDRS Annual Returns – 1999 - 2008

1999	1.4%	2004	12.8%
2000	9.4%	2005	7.3%
2001	3.0%	2006	14.0%
2002	1.6%	2007	8.1%
2003	20.2%	2008 est.	-29.0%

Ten Worst Years of U.S. Equity Returns Since 1926*

1931	-43.3%	2002	-22.1%
2008	-37.0%	1973	-14.7%
1937	-35.0%	2001	-11.9%
1974	-26.5%	1941	-11.6%
1930	-24.9%	1957	-10.8%

* Measured by S&P 500 returns

Recessions 1929 – 2007*

Period	Length of Recession in Months
Aug 1929 – March 1933	43
May 1937 – June 1938	13
Feb 1945 – Oct 1945	8
Nov 1948 – Oct 1949	11
July 1953 – May 1954	10
Aug 1957 – April 1958	8
April 1960 – Feb 1961	10
Dec 1969 – Nov 1970	11
Nov 1973 – March 1975	16
Jan 1980 – July 1980	6
July 1981 – Nov 1982	16
July 1990 – March 1991	8
March 2001 – Nov 2001	8
Dec 2007 -	**13 & counting**

Average length of recessions since 1945 is 10 months

*Source: National Bureau of Economic Research (NBER)

The Market Cycle:
Recoveries Follow Downturns (1956-2008)

Dates of Downturn	Duration of Downturn (months)	Dates of Recovery	Duration of Recovery (months)	Loss During Downturn (Cumulative % Return)	Gain During Recovery (Cumulative % Return)
8/56 - 2/57	7	3/57 - 7/57	5	-10.4%	12.5%
8/57 - 12/57	5	1/58 - 7/58	7	-15.0%	20.8%
1/62 - 6/62	6	7/62 - 4/63	10	-22.3%	31.2%
2/66 - 9/66	8	10/66 - 3/67	6	-15.7%	19.9%
12/68 - 6/70	19	7/70 - 3/71	9	-29.2%	41.7%
1/73 - 9/74	21	10/74 - 6/76	21	-42.7%	76.6%
1/77 - 2/78	14	3/78 - 7/78	5	-14.4%	18.2%
12/80 - 7/82	20	8/82 - 10/82	3	-16.5%	26.6%
9/87 - 11/87	3	12/87 - 5/89	18	-29.6%	46.8%
6/90 - 10/90	5	11/90 - 2/91	4	-14.5%	22.2%
7/98 - 8/98	2	9/98 - 11/98	3	-15.4%	22.0%
9/00 - 9/02	25	10/02 - 10/06	49	-44.7%	81.9%
Average	11		12	-22.5%	34.5%

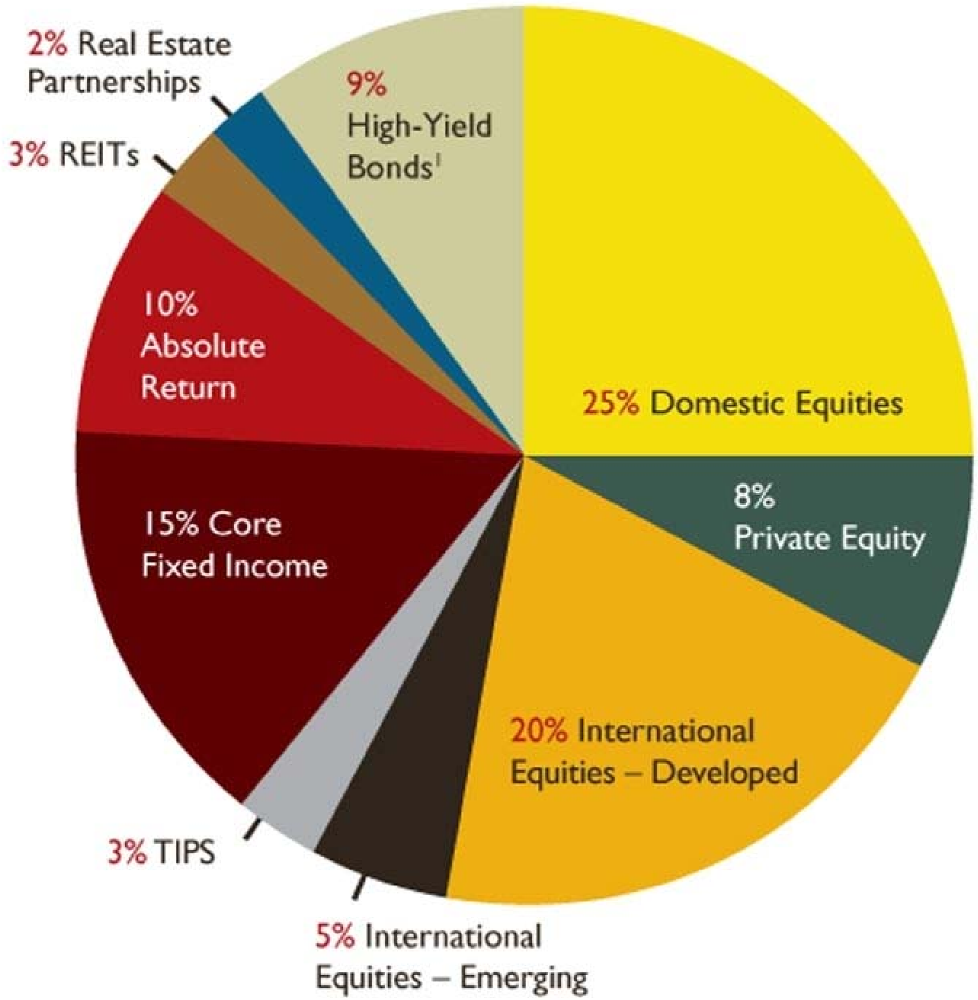
Sources: Morningstar; PSN Enterprise; BlackRock.
Downturns are defined by a time period when the stock market value declined by 10% or more from its peak, while the recovery period indicates the number of months from the trough of downturn to the markets subsequent peak. Performance is represented by the S&P 500 Index, an unmanaged index that consists of the common stocks of 500 large capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. Past performance is not a guarantee of future performance. It is not possible to directly invest in an index. The data assumes reinvestment of all income and does not account for taxes or transaction costs.

Return Forecasts*

	2008	2009
U. S. Stocks	7.90%	8.60%
Developed International Stocks	7.90%	8.60%
Core Fixed Income	4.40%	4.00%
Hedge Funds	7.70%	8.55%
High Yield	7.05%	9.50%
Private Equity	10.90%	11.60%
Emerging Markets Stocks	7.90%	8.60%
REITs	7.65%	8.20%
U.S. TIPS	3.80%	4.50%
Real Estate Partnerships	10.30%	11.20%

*10-year forecast

2008 Asset Allocation Targets



[1] Target allocations for the high-yield asset class are subdivided into a 5% allocation for high-yield bonds, 2% for bank loans and 2% for distressed debt.

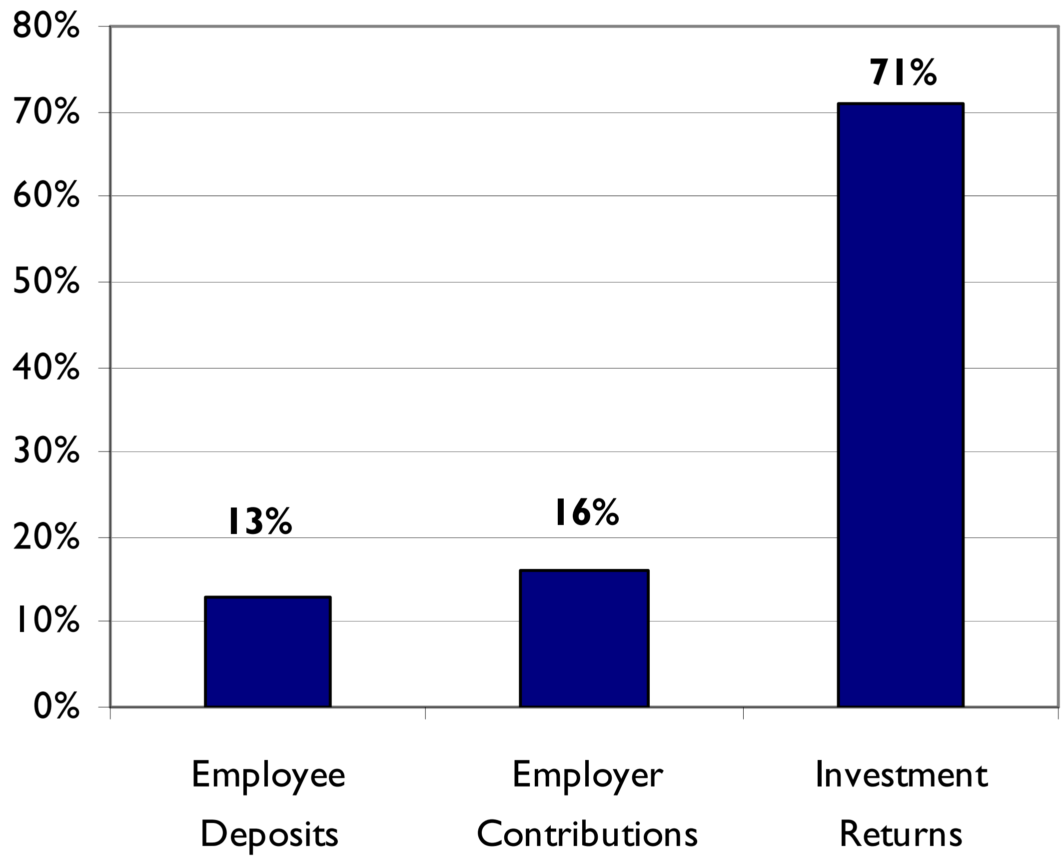
Director - Gene Glass

Gene has been the executive director of TCDRS since February 2005. In his 12-year tenure with TCDRS, he has held the positions of comptroller and director of Finance & Administration. Gene has a degree in business administration. Prior to joining TCDRS, he practiced public accounting for 18 years and served as a corporate controller.

Impact on Your Employees' Benefits

- Your employees' accounts grow at 7% interest regardless of the market's ups and downs
- Retirees' benefits are secure
- Employers are responsible for funding this stability for employees and retirees

Source of Asset Growth*



Benefits = Contributions + Investment Earnings

*Estimated as of Dec. 31, 2008

Employer Contribution Rates

- Each year the system's actuaries compare your current and projected assets to the benefits promised to your employees. These calculations project both assets and benefits many years into the future.
  - ★ Determine contribution rates

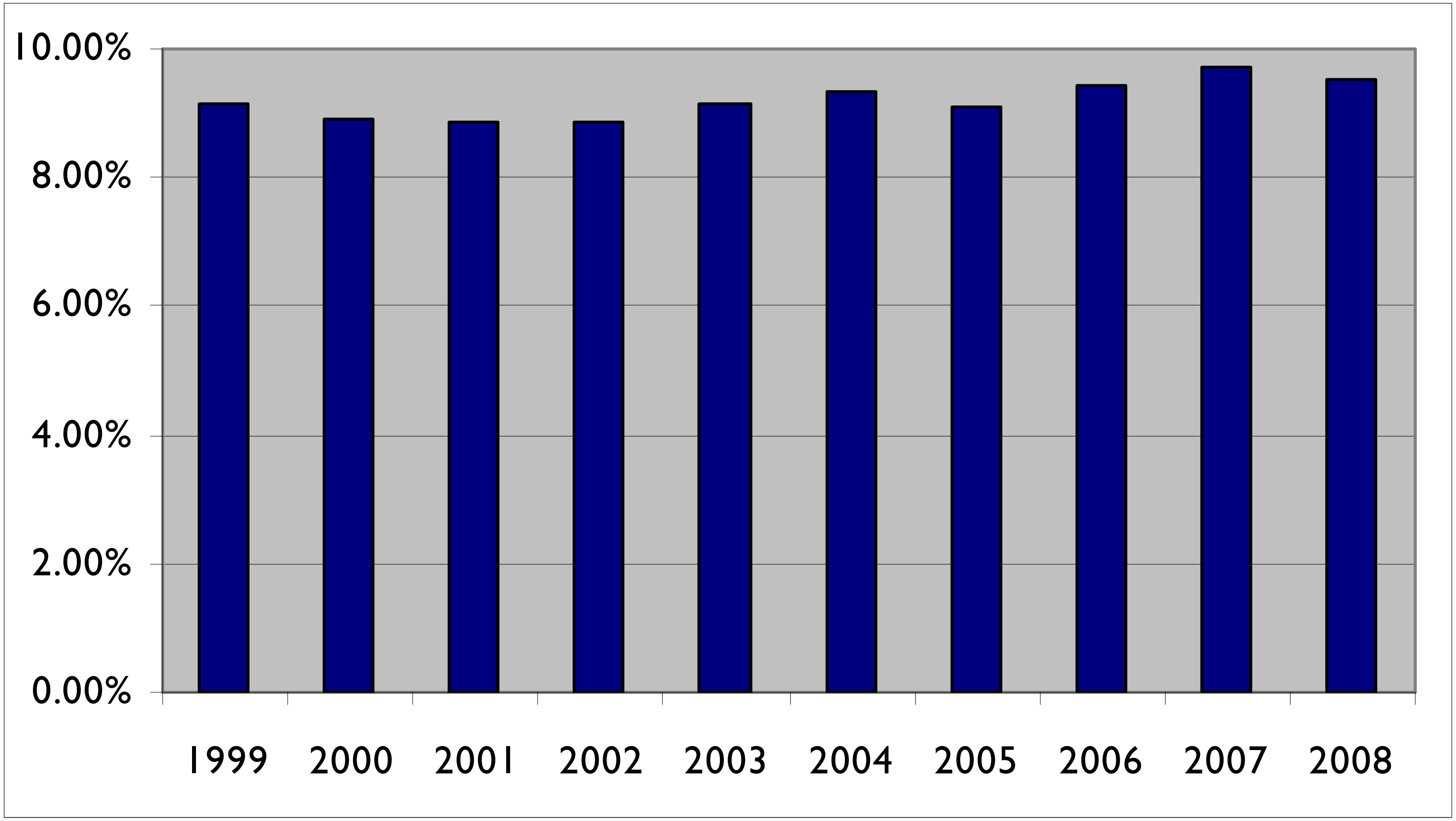
- Several assumptions are used in these calculations
  - ★ When actual experience turns out to be different from the assumptions, employer contribution rates are adjusted

A key assumption is investment return – target is 8%

Keeping Rates Stable

- Investment returns are volatile, go up and down each year
  - ★ Challenge is keeping employer rates stable from year-to-year
- You have tools to help keep your rate stable:
  - ★ Regularly monitor your plan of benefits and its costs
  - ★ Contribute at a higher elected rate or make lump-sum payments
- The system also has tools to help keep rates stable:
  - ★ Actuarial methods to spread costs over a reasonable period
  - ★ Accumulated reserves to use in below-target return years
  - ★ Smoothing to keep losses from spiking rates in a single year
    - – Helps moderate the short-term impact investment return or plan experience may have on plan rates

Historical Average* Employer Contribution Rate



*Weighted average by payroll

2008 Investment Loss Rate Impact

•2009 rates are set and will not change

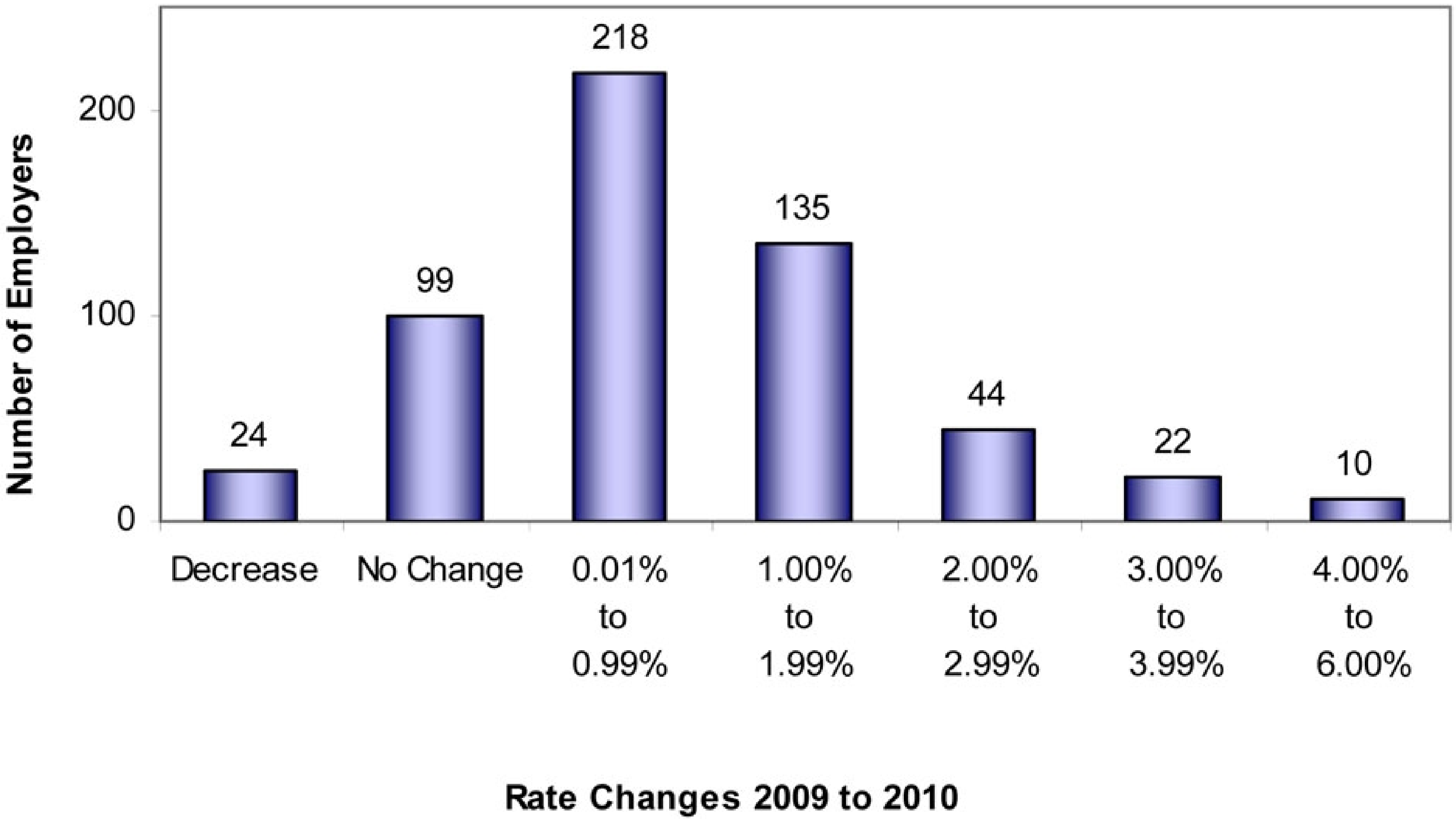
•Estimated 2010 rates will increase on average 1.5% of payroll

- ★ Some plans will experience more, some less
- ★ Estimate does not include rate changes due to annual plan experience or benefit changes

•Estimates are based on the board using the following tools to help stabilize rates:

- ★ Adopting a 20-year amortization period to fund liabilities (change from current 15-year period)
- ★ Passing reserves of approximately $2 billion through to employers

Estimated Changes in Employer Contribution Rates* from 2009 to 2010



*Estimated rate based on investment loss

Other Considerations

- The full impact of 2008 investment return on contribution rates won’t happen in 2010
  - Rise gradually over 10 years
  - Plan structure is designed to keep volatility in rates at a minimum
  - Allows investment markets time to recover
    - Provides the ability to help stabilize rates

- Increasing your plan of benefits – such as matching increases and COLAs,
  - Will cause rates to increase further
  - You should continue to monitor your plans closely

Upcoming Communications from TCDRS

- Feb. 23 – letter will be mailed showing **estimated** impact of the **investment loss** on your **individual** plan rate

- May 1 – the **actual** rates for 2010 based on the final actuarial valuation will be mailed

Q&A

•As we were reviewing your pre-submitted questions, we noticed a common theme…

- ★ If we experience negative returns again in 2009, what will the impact on the 2011 contribution rate be? Or future rates?
- ★ If we experience a net return in excess of the expected target rate (8%) in 2009, what will the impact on 2011contribution rate be? Of future rates?
- ★ How long will a county need to make the additional contributions to maintain the same level of benefits?
- ★ What is your expected rate of return for 2009? When does your economic forecast show the economy stabilizing and growth starting?

What does the future hold?

Closing Comments – Judge Eckels

- Investment policy and plan structure are designed to weather market fluctuations

- Because of the up and down swings of the financial markets, stabilizing tools were built into the system and your plan

- We will continue to look for all viable options to help lessen the market's impact and to position the system for success in the coming years

Web Conference Additional Viewing

•For anyone who may have missed this conference, we will send out instructions within 24 hours of how to access a recorded version

•Copies of these slides will be available per request

•Directly after the conference a short survey will appear on your screen. Please take a few minutes to provide us your feedback.

Thank You!

Appendix

Crisis Calendar

Crisis Calendar - Leading up to 2008

Spring – Summer 2007	•Mortgage lenders begin to fail •Subprime Asset-Backed Securities prices collapse •LBO loan hangover begins •Deleveraging begins
Fall – Winter 2007-08	•Structured Investment Vehicles begin to collapse •Bond insurer downgrades hurt municipal bond market •Auction rate securities market seizes •Bear Stearns rescued

Crisis Calendar - 2008 Storm Brewing

Spring 2008	•European bank bailouts begin •Prime mortgage delinquencies rise •Merrill Lynch/Lehman raise capital
Summer – Fall 2008	•Indy Mac Bank seized •Lehman files bankruptcy •WaMu seized •Fannie/Freddie put in Federal receivership •Merrill Lynch sold to BofA •Massive deleveraging

Crisis Calendar - 2008 100 Year Flood

Winter 2008	•Credit markets freeze •TARP fails, then passes •Fed liquidity injections •Mounting recession fears •Job losses total 2 million •Auto bailout •Madoff •Fed cuts overnight rates to zero •Stimulus package