

TMRS & Cities – Staying in Tune

TMRS Overview

Presented by

David Gavia, Executive Director

Nancy Goerdel, Chief Investment Officer



Highlights of 2008

- TMRS changed its actuarial cost method to Projected Unit Credit to prefund cost of annually repeating benefits
- Cities given an eight-year phase-in — if needed — to pay higher contribution rates
- Approved asset diversification from historically all-bond portfolio

Highlights of 2009

- 81st Legislature enacted HB 360 -
 - Outcome of work by Advisory Committee and Board
- HB 360 provisions:
 - Minimum 5% interest guarantee to members
 - Minimum 5% discount rate in annuity purchase rate
 - Variable annual interest to cities

House Bill 360 – 81st Legislature



- Allows continued diversification of the fund
- Protects member benefits
- Helps mitigate higher city contribution rates
- Allows TMRS to build a reserve for “bad years”

Highlights of 2009, cont.

- Interest credited under HB 360:
 - Members' fund (ESF) received 5%
 - City accounts (MAF) credited with 7.5%
- From 2009 earnings, TMRS established approximately 4% of assets in reserve
- Current reserve target is 20% of assets



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Actuarial Overview

Presented by

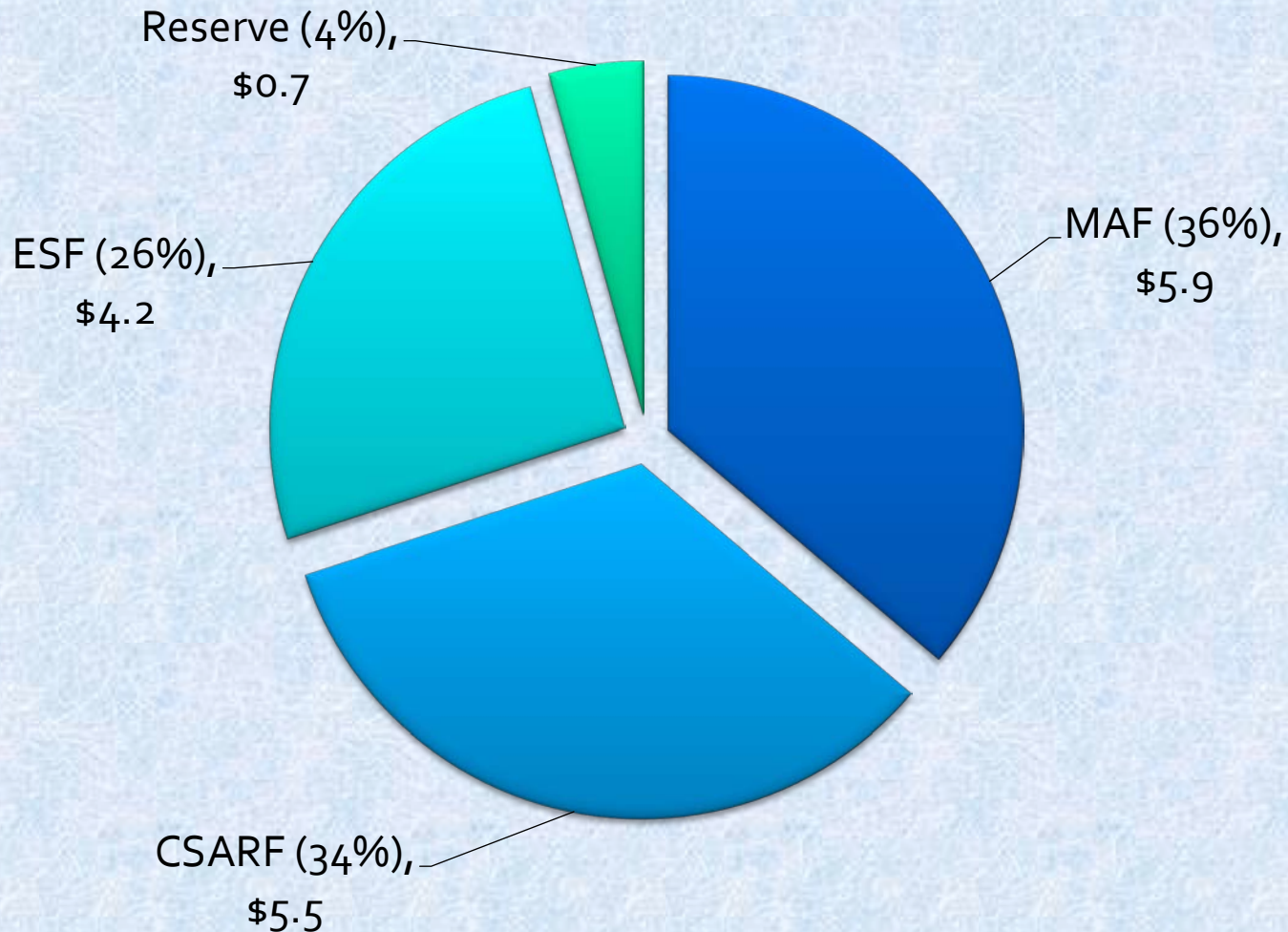
Mark Randall, Actuary

Gabriel, Roeder, Smith & Company (GRS)

December 31, 2009 (2011 rates) Actuarial Valuation Summary

- System-wide Funded Ratio increased
- Overall, results close to expectations
 - Turnover and retirement lower than expected
- Phase-In Adjustments Continue
 - Many cities not yet paying the Full Rate
 - 20 cities decreased benefits last year
- CSARF continues to grow
 - Increases the need for a robust Reserve

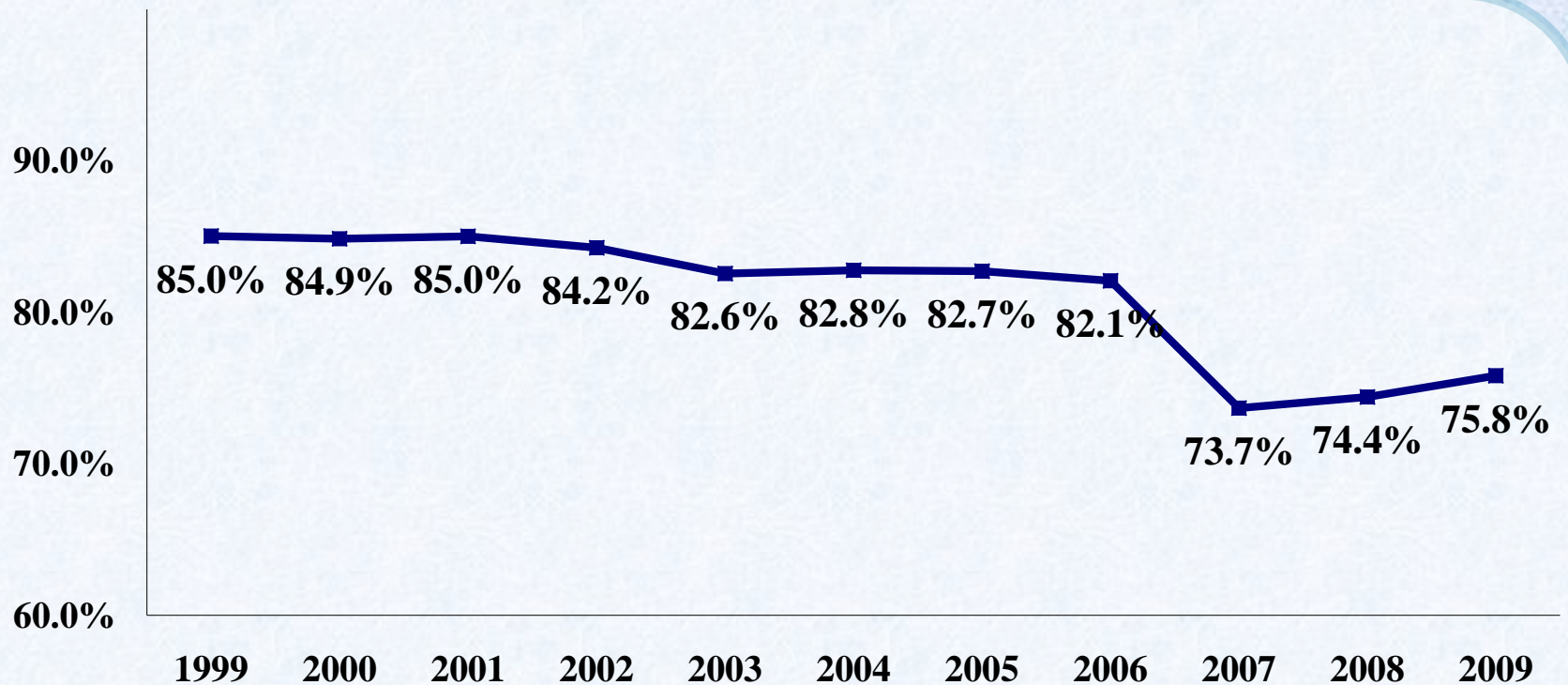
Individual TMRS Funds (% of Total)



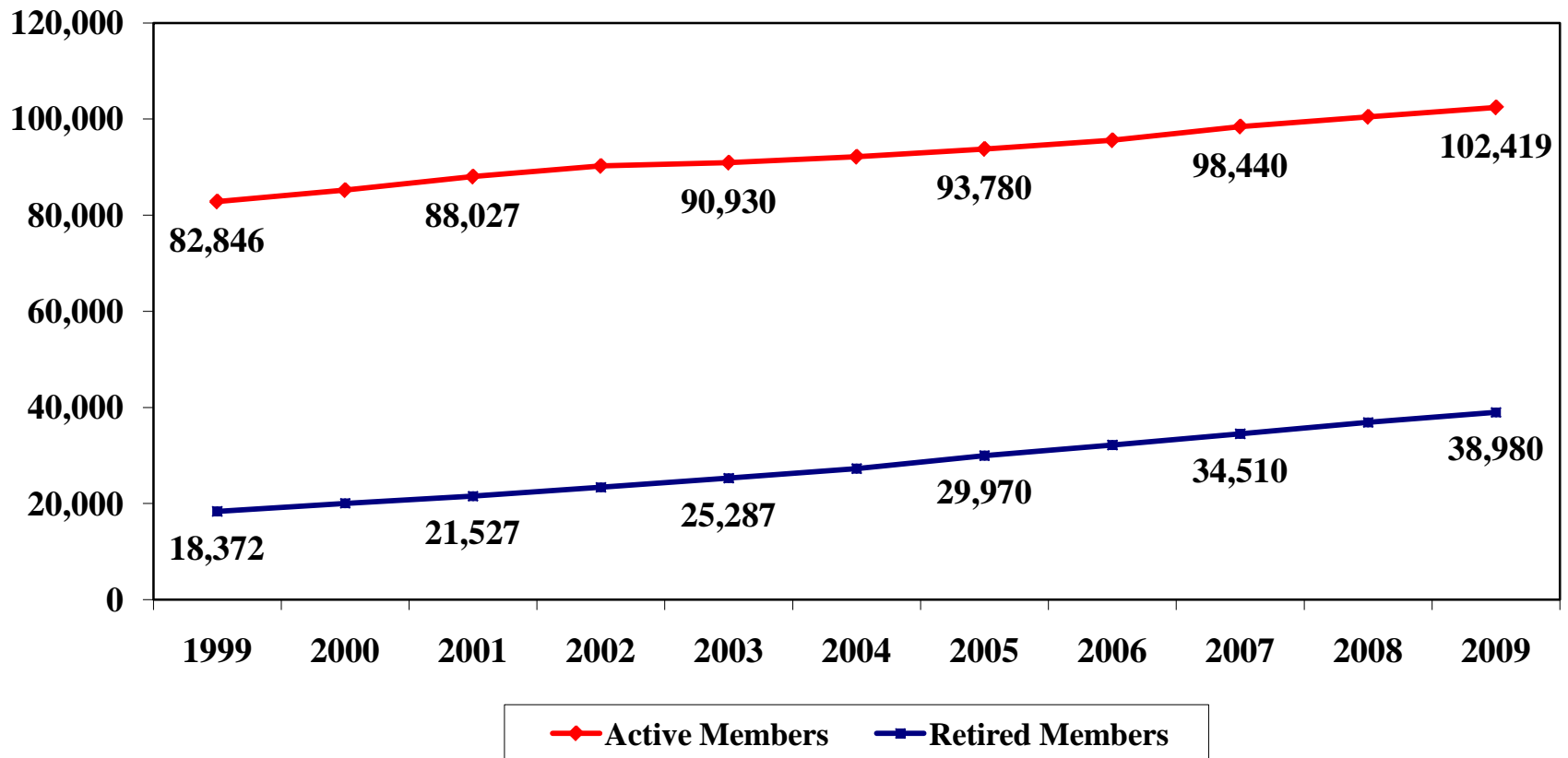
Above \$ amounts are in Billions as of December 31, 2009.

Funded Ratio Percentages

The System-wide Funded Ratio
has increased two years in a row

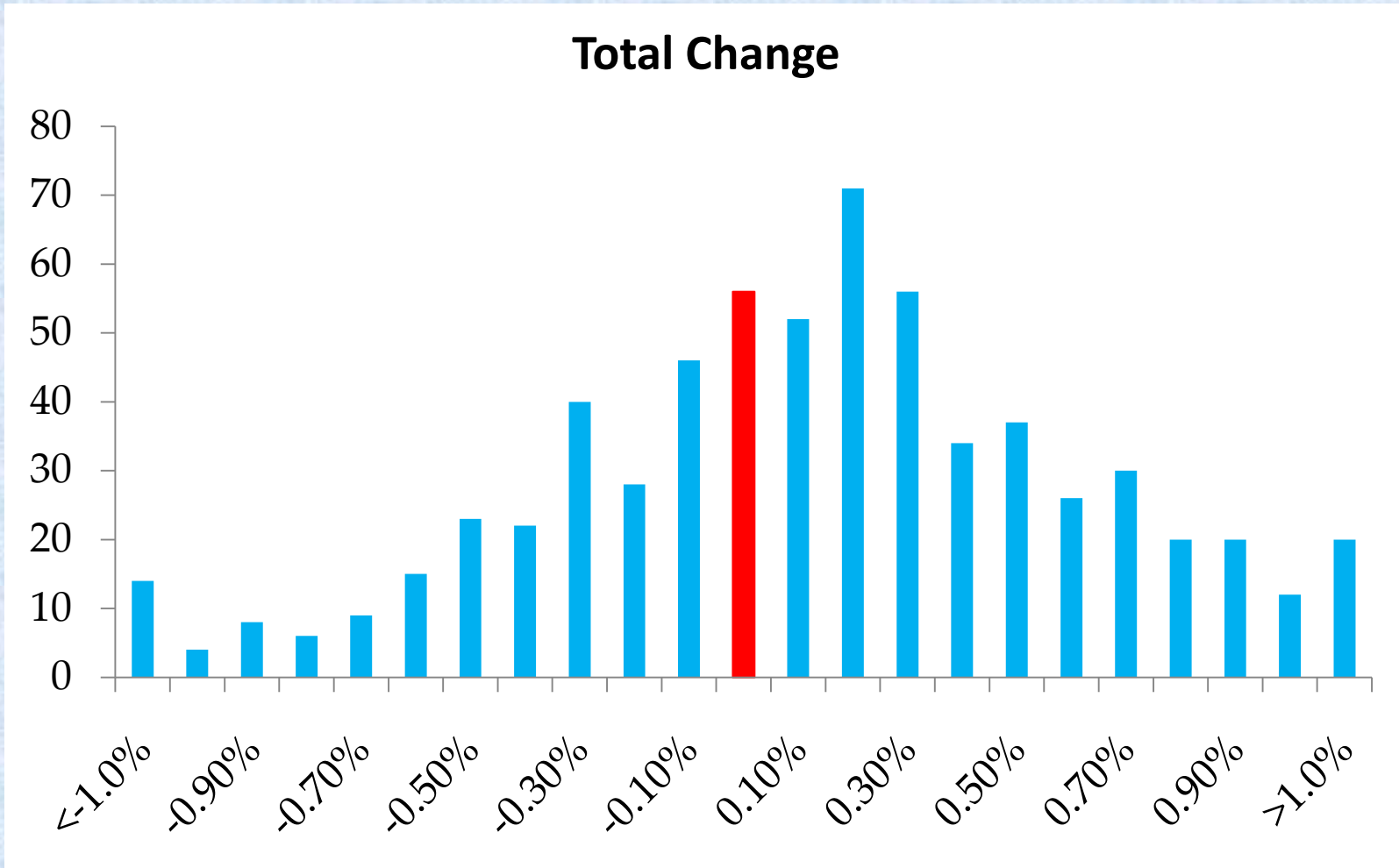


Active Members and Retired Members



2.1% average increase in active members since 1999; 2.0% increase in 2009
7.8% average increase in retired members since 1999; 5.7% increase in 2009
There are currently 2.7 actives for every retiree, down from 4.5 in 1999

Distribution of Rate Changes for 2011 (Cities with more than 10 members)



The red highlight represents +/- 0.0%

“Restructuring”

- Under the proposed TMRS Fund Restructuring, both the CSARF and the ESF would be folded into the MAF of each member city to more resemble a typical pension fund structure
- ESF would still be paid the guaranteed 5% return within the MAF

Without “Restructuring”

- The CSARF will continue to grow and become a larger and larger portion of the total TMRS Fund
 - Increases leverage to MAF
 - Increases volatility of rates
- Result:
 - Increases need for higher Reserve Levels
 - Reserves will be built by future earnings, meaning increased contribution rates

Main Reason for Fund Restructuring

- Reduce current volatility and leverage
 - Protects the MAF from the downside risk
 - Redistribution of CSARF reduces leverage significantly and inclusion of ESF eliminates leverage
 - Volatility is reduced to the level of a typical pension fund
- Potential contribution rate reduction is an additional benefit

Notes

- Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- Readers are cautioned to examine original source materials and to consult with subject matter experts before making decisions related to the subject matter of this presentation.
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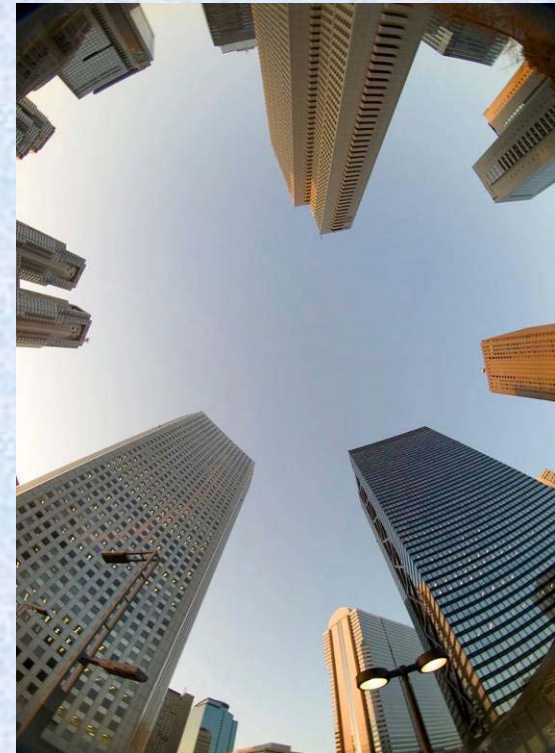
Investments

Presented by
Marcia Beard, Senior Consultant
R. V. Kuhns & Associates (RVK)

Investment Update

Topics for Discussion

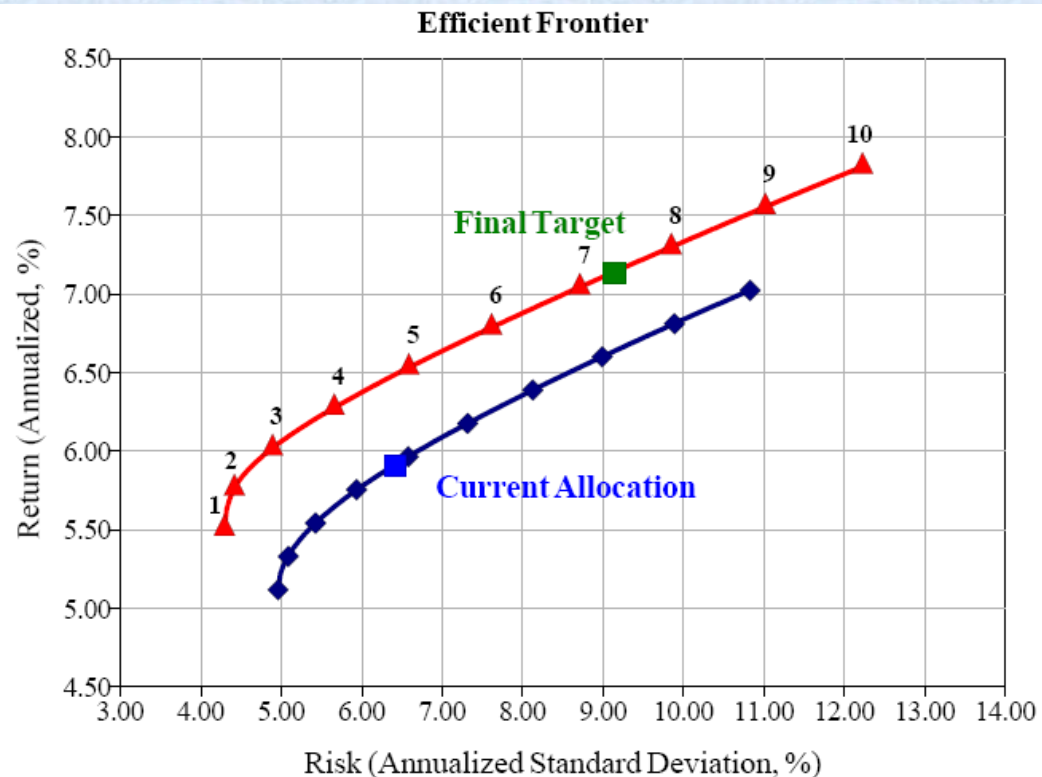
- Asset Allocation Review: Diversification in Progress
- Performance Review
- Timeline and Next Steps



Asset Allocation – Review of Target Allocation

- The table highlights the average return expectations and other risk factors
- The chart highlights that the final target can be considered “optimal”

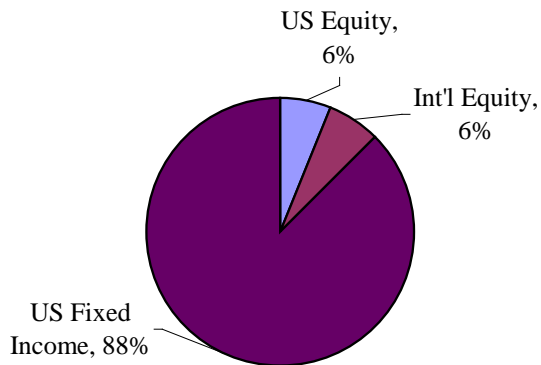
| | Min | Max | Current Allocation | Final Target |
|--|-----|-----|--------------------|--------------|
| Broad US Equity | 0 | 30 | 14 | 20 |
| Broad International Equity | 0 | 30 | 13 | 20 |
| Core Fixed Income | 0 | 100 | 73 | 35 |
| Core Real Estate | 0 | 10 | 0 | 10 |
| Real Return | 0 | 5 | 0 | 5 |
| Absolute Return | 0 | 5 | 0 | 5 |
| Private Equity | 0 | 5 | 0 | 5 |
| Total | | | 100 | 100 |
| Capital Appreciation | | | | |
| | | | 27 | 45 |
| Capital Preservation | | | | |
| | | | 73 | 35 |
| Alpha | | | | |
| | | | 0 | 5 |
| Inflation | | | | |
| | | | 0 | 15 |
| Expected Return | | | | |
| | | | 5.91 | 7.14 |
| Risk (Standard Deviation) | | | | |
| | | | 6.42 | 9.14 |
| Return (Compound) | | | | |
| | | | 5.72 | 6.75 |
| Return/Risk Ratio | | | | |
| | | | 0.92 | 0.78 |
| RVK Expected Equity Beta (LC US Eq = 1) | | | | |
| | | | 0.29 | 0.47 |
| RVK Liquidity Metric (T-Bills = 100) | | | | |
| | | | 87 | 74 |



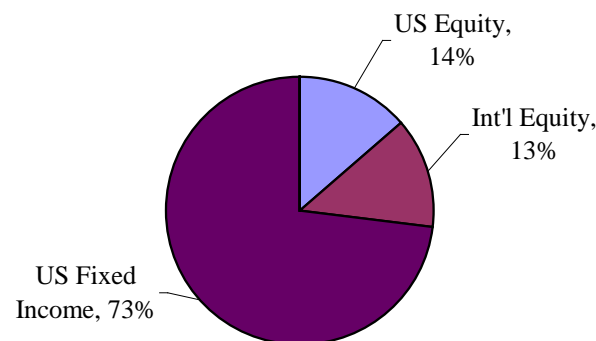
Asset Allocation – Total Fund Progress

- Progression of the TMRS asset allocation as of June 30, 2009 to the current asset allocation (8/31/2010) compared to the TMRS final target allocation

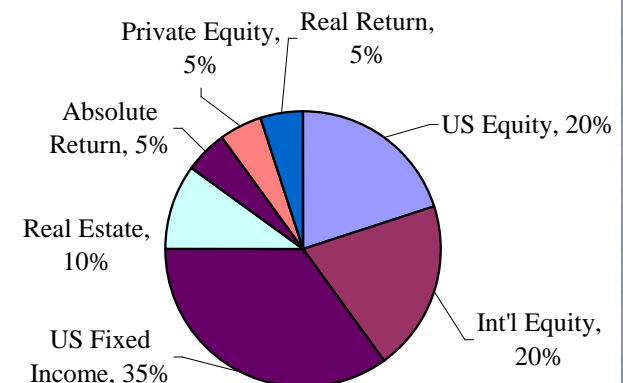
**TMRS Allocation
as of June 30, 2009**



**TMRS Current Allocation
as of August 31, 2010**



TMRS Final Target



Performance to Date - August 31, 2010

Texas Municipal Retirement System
Comparative Performance
As of August 31, 2010

| | 1 Month | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2009 | Since Inception | Inception Date |
|-------------------------------------|--------------|--------------|--------------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------------|-------------------|
| Total Fund Composite | -0.08 | 3.02 | 4.20 | 7.19 | 6.37 | 3.67 | 7.07 | 7.73 | 10.20 | 9.13 | 01/01/1989 |
| Actual Allocation Benchmark | -0.14 | 2.99 | 4.14 | 6.83 | 5.82 | 3.95 | 5.84 | 6.86 | 4.06 | 8.44 | |
| Difference | 0.06 | 0.03 | 0.06 | 0.36 | 0.55 | -0.28 | 1.23 | 0.87 | 6.14 | 0.69 | |
| Total Fund Composite | -0.08 | 3.02 | 4.20 | 7.19 | 6.37 | 3.67 | 7.07 | 7.73 | 10.20 | 9.13 | 01/01/1989 |
| Target Allocation Benchmark | -0.18 | 3.10 | 4.37 | 7.09 | 5.57 | 3.80 | 5.74 | 6.79 | 4.43 | 8.40 | |
| Difference | 0.10 | -0.08 | -0.17 | 0.10 | 0.80 | -0.13 | 1.33 | 0.94 | 5.77 | 0.73 | |
| Total Fixed Income Composite | 1.44 | 4.08 | 8.04 | 9.63 | 7.60 | 4.39 | 7.59 | 8.10 | 6.64 | 9.31 | 01/01/1989 |
| Fixed Income Benchmark | 1.29 | 3.97 | 7.83 | 9.18 | 7.05 | 4.67 | 6.37 | 7.24 | 0.27 | 8.61 | |
| Difference | 0.15 | 0.11 | 0.21 | 0.45 | 0.55 | -0.28 | 1.22 | 0.86 | 6.37 | 0.70 | |
| Global Equity Composite | -3.92 | 0.21 | -5.98 | 1.73 | N/A | N/A | N/A | N/A | 30.25 | -8.61 | 02/01/2008 |
| Global Equity Benchmark | -3.92 | 0.28 | -6.06 | 1.63 | N/A | N/A | N/A | N/A | 30.07 | -8.73 | |
| Difference | 0.00 | -0.07 | 0.08 | 0.10 | N/A | N/A | N/A | N/A | 0.18 | 0.12 | |
| Domestic Equity Composite | -4.71 | -3.93 | -4.27 | 5.63 | N/A | N/A | N/A | N/A | 28.42 | -7.37 | 02/01/2008 |
| R 3000 Index | -4.71 | -3.95 | -4.26 | 5.64 | -8.27 | -0.72 | 3.10 | -1.26 | 28.34 | -7.39 | |
| Difference | 0.00 | 0.02 | -0.01 | -0.01 | N/A | N/A | N/A | N/A | 0.08 | 0.02 | |
| Non-U.S. Equity Composite | -3.09 | 4.84 | -7.76 | -2.09 | N/A | N/A | N/A | N/A | 32.08 | -9.97 | 02/01/2008 |
| Non-U.S. Equity Benchmark | -3.10 | 5.03 | -7.95 | -2.34 | -10.75 | 0.96 | 6.84 | 1.10 | 31.78 | -10.23 | |
| Difference | 0.01 | -0.19 | 0.19 | 0.25 | N/A | N/A | N/A | N/A | 0.30 | 0.26 | |
| TMRS Unallocated Cash (SA) | 0.01 | 0.05 | 0.09 | 0.13 | N/A | N/A | N/A | N/A | 0.20 | 0.53 | 06/01/2008 |
| BofA ML 3 Mo US T-Bill Index | 0.01 | 0.04 | 0.08 | 0.14 | 1.26 | 2.67 | 2.41 | 2.60 | 0.21 | 0.58 | |
| Difference | 0.00 | 0.01 | 0.01 | -0.01 | N/A | N/A | N/A | N/A | -0.01 | -0.05 | |

Portfolio Review

Asset Classes: Accomplishments

- **Equities – August 2010**
 - Non-U.S. allocation diversification — initiated move to expanded benchmark for exposure to small cap and emerging markets
- **Fixed Income – January 2010**
 - Increased diversification from core only by addition of core plus strategy
- **Real Estate – May 2010**
 - Retained ORG as real estate consultant
- **Real Return – June 2010**
 - Decision made to implement allocation using global inflation-linked bonds
 - Manager selection at the September 24th Board meeting

Next Steps

Asset Classes: Next Steps 2010 - 2011

- **Equities**
 - Consider further diversification of equity allocation
 - Research additional strategies
- **Fixed Income**
 - Review existing fixed income structure
 - Consider further diversification of fixed income strategies
- **Real Estate**
 - Adopt real estate policies and implementation strategies
 - Begin manager selection process
 - Initial commitments expected in 2011
- **Absolute Return**
 - Staff to participate in research and education efforts
 - Identify appropriate strategies and implementation methods

Conclusion

- Diversification has continued in a methodical manner across divergent asset classes
- Timing and execution have been beneficial to performance and are keeping us on track
- Significant work and change still ahead



Glossary of Terms

- **Asset Allocation** is a systematic analysis of the properties of specified asset classes to determine the allocation of those assets that meet the return targets of a portfolio.
- **The Efficient Frontier** is the set of portfolios that minimizes risk at given target levels of return. This process takes into account the risk, return and correlation of the asset classes to arrive at the most efficient set of portfolios.
- **Expected Equity Beta** is a measure of the sensitivity of a portfolio to movements in the Large/Mid Cap US Equity market. It is a measure of a portfolio's non-diversifiable or systematic risk.
- **Performance Expectation** is the best estimate of the average annual percentage increase in the value of an asset class over the next ten years.
- **RVK Liquidity Metric** is a qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Metric is calculated using investment weights applied to each corresponding asset class liquidity rating. See next page for more details.
- **Thematic Classification** represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation as displayed in the table on the next page.

Glossary of Terms

| Asset Class | Thematic Bucket | Liquidity Bucket | RVK Liquidity Metric |
|----------------------------------|------------------------|-------------------------|-----------------------------|
| Broad US Equity | Capital Appreciation | Liquid | 95 |
| Large/Mid Cap US Equity | Capital Appreciation | Liquid | 95 |
| Broad International Equity | Capital Appreciation | Liquid | 90 |
| Dev'd Large/Mid Cap Int'l Equity | Capital Appreciation | Liquid | 90 |
| Global Equity | Capital Appreciation | Liquid | 90 |
| Dev'd Small/Mid Cap Int'l Equity | Capital Appreciation | Liquid | 85 |
| Emerging Markets Equity | Capital Appreciation | Liquid | 85 |
| Small/Mid Cap US Equity | Capital Appreciation | Liquid | 85 |
| Convertibles | Capital Appreciation | Liquid | 80 |
| Distressed Debt | Capital Appreciation | Liquid | 80 |
| High Yield Fixed Income | Capital Appreciation | Less Liquid | 50 |
| Value Added Real Estate | Capital Appreciation | Not Liquid | 15 |
| Opportunistic Real Estate | Capital Appreciation | Not Liquid | 5 |
| Private Equity | Capital Appreciation | Not Liquid | 5 |
| T-Bills and Treasurys | Capital Preservation | Liquid | 100 |
| Cash Equivalents | Capital Preservation | Liquid | 98 |
| Stable Value | Capital Preservation | Liquid | 98 |
| Core Fixed Income | Capital Preservation | Liquid | 85 |
| Long Duration Fixed Income | Capital Preservation | Liquid | 85 |
| Low Duration Fixed Income | Capital Preservation | Liquid | 85 |
| Non-US Fixed Income UH | Capital Preservation | Less Liquid | 50 |
| Absolute Return | Alpha | Less Liquid | 35 |
| Equity Market Neutral | Alpha | Less Liquid | 35 |
| Long-Biased Long/Short Equity | Alpha | Less Liquid | 35 |
| Commodities - Broad | Inflation | Liquid | 98 |
| Commodities - Energy | Inflation | Liquid | 98 |
| TIPS | Inflation | Liquid | 95 |
| REITs | Inflation | Liquid | 85 |
| Real Return | Inflation | Less Liquid | 50 |
| Core Real Estate | Inflation | Not Liquid | 25 |
| Timber | Inflation | Not Liquid | 5 |



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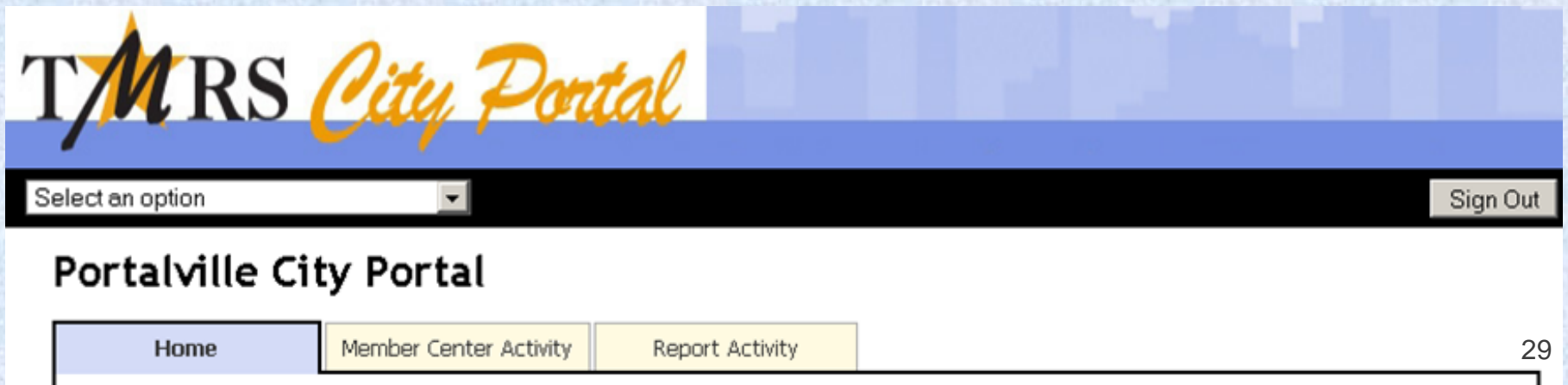
Looking Ahead

Issues in 2010 and Beyond

- Economic downturn is affecting cities so that reductions in TMRS benefits are under consideration
- There is an increase in public and media attention to public retirement systems
- TMRS is working with cities to determine benefit costs

2010- 2011 City Portal Development

- Online TMRS access for cities
- A way to perform Web-based administrative functions
- A means to access your city's employee data
- TMRS Staff will present a City Portal overview tomorrow at 9:00 a.m.



The screenshot shows the TMRS City Portal interface. At the top left, the logo reads "TMRS City Portal" with "TMRS" in a bold, black, sans-serif font and "City Portal" in a yellow, cursive font. Below the logo is a blue horizontal bar. Underneath the bar is a black navigation bar containing a dropdown menu on the left with the text "Select an option" and a downward arrow, and a "Sign Out" button on the right. Below the navigation bar is the main content area, which starts with the heading "Portalville City Portal" in a bold, black font. At the bottom of the page, there is a row of three buttons: "Home" (blue), "Member Center Activity" (yellow), and "Report Activity" (yellow).

What Can Cities Do on the Portal?

- Make member inquiries
- Run member estimates
- Run common reports
- Submit payroll file via FTP

Account Info

Balance Summary

Balance Details

Estimates

2010 Legislative Interim

- TMRS Advisory Committee on Retirement Matters held numerous meetings this interim to prepare for the 82nd Texas Legislative session.
- Received input from cities, members, associations, retirees, and elected officials
- Discussed various proposals, and unanimously recommended that the TMRS Board seek legislation to restructure TMRS funds and pursue no other legislation

2011 Legislative Package

“Fund Restructuring”

- Consulting actuary worked with the TMRS Board and Advisory Committee to examine fund structure and pros and cons of making changes
- Change in structure requires legislation
- **Proposal:**
 - Stop future transfers to CSARF and redistribute current CSARF liabilities and assets back to employers (MAF)
 - Merge CSARF, MAF, and ESF

Looking Ahead to 2011

- Board considered Advisory Committee recommendations at September meeting
- Legislation will be filed for 82nd Legislature — if passed in time, rates may be effective for last quarter of 2011
- Long-term investment strategy will be continuously evaluated
- Portfolio diversification will continue toward targets



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QUESTIONS?