



An Update on the Texas Municipal Retirement System (TMRS)

**TML Annual Conference
Corpus Christi, Texas
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**Presented by
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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 TMRS Board
- HB 360 provisions
 - Minimum 5% interest guarantee to members
 - Minimum 5% discount rate in annuity purchase rate
 - Variable annual interest to cities

HB 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 “down years”

INTEREST ALLOCATION FOR 2009

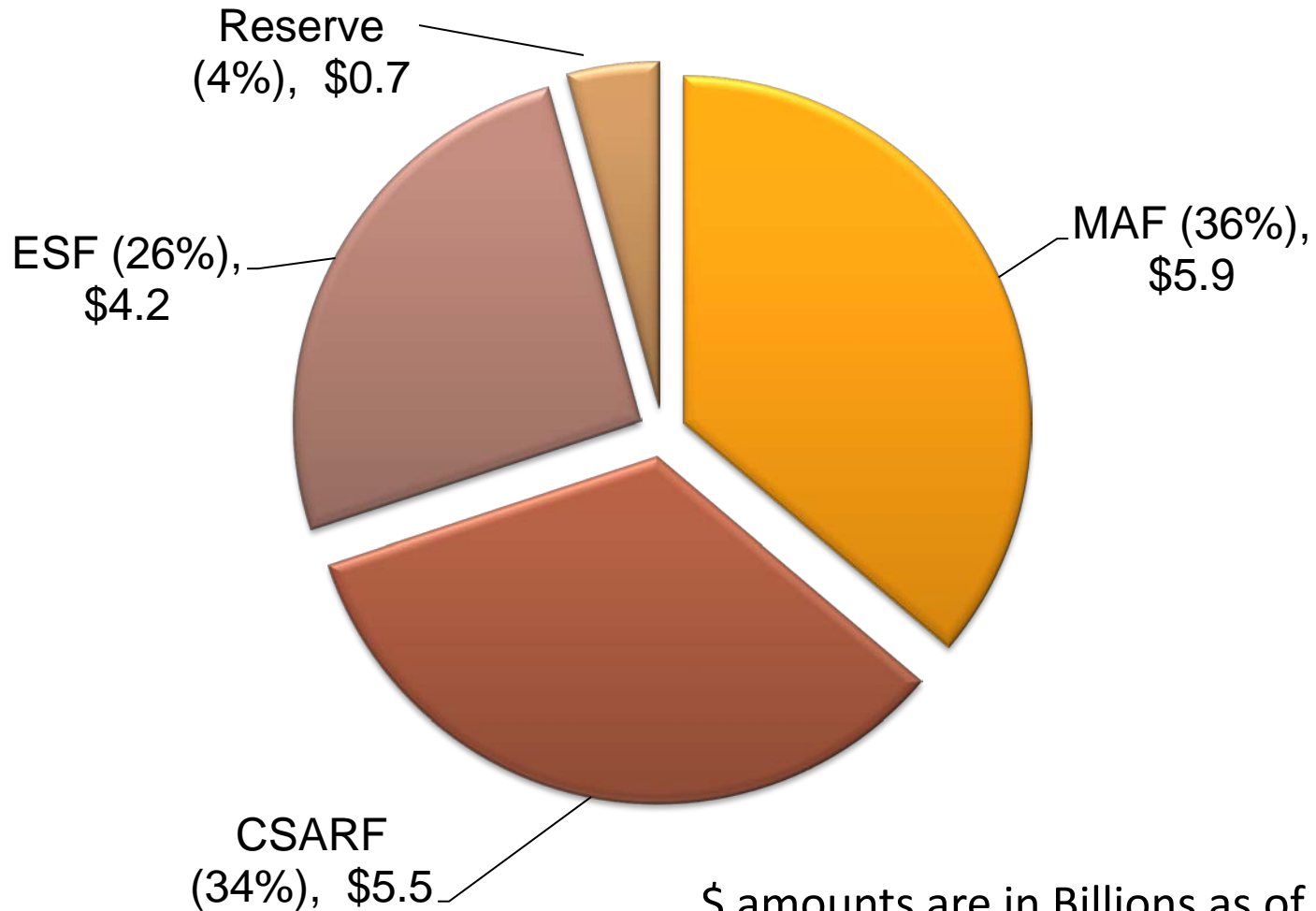
- 2009 year-end return: 10.2%
- Investment return of approximately 6% would have provided 5% to members and 7.5% to cities
- 10.2% return provided required percentages and allowed establishment of a reserve of 4%



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)

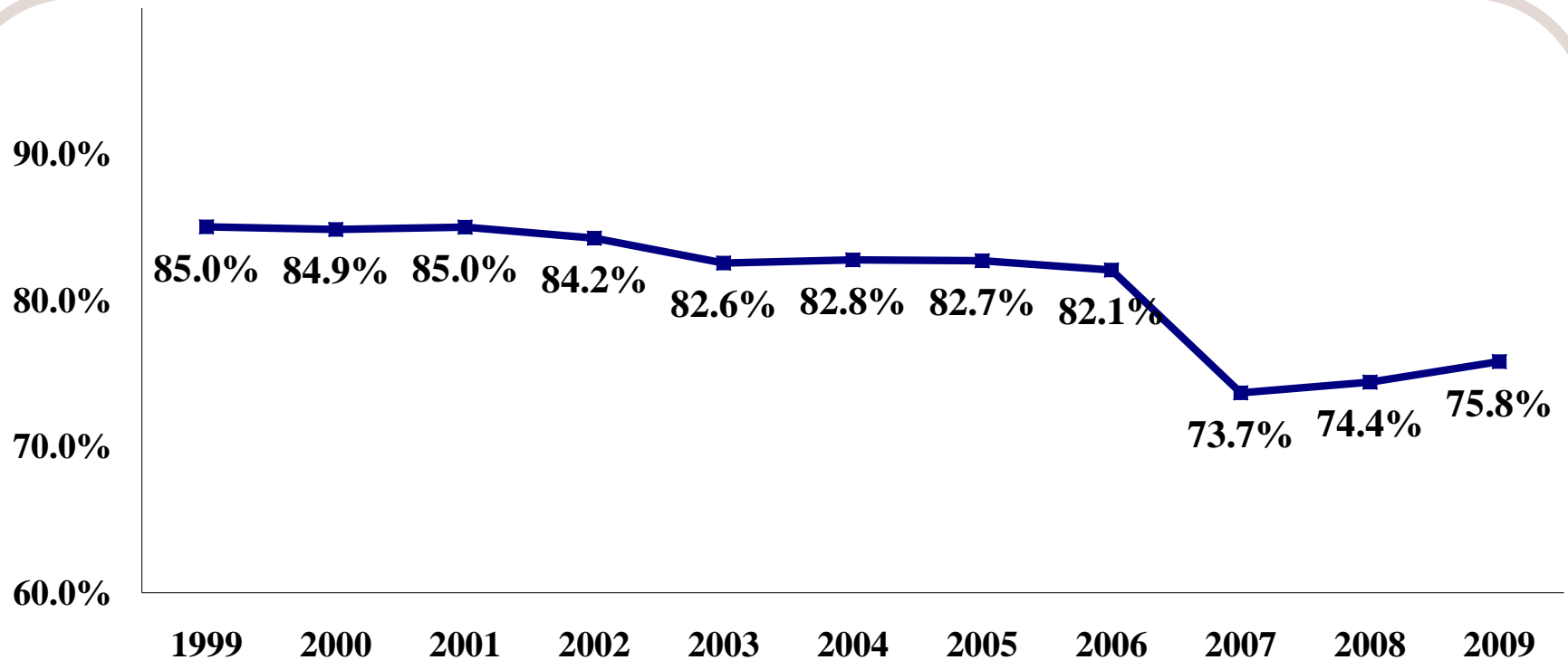


\$ amounts are in Billions as of
December 31, 2009.

SOURCE: GRS

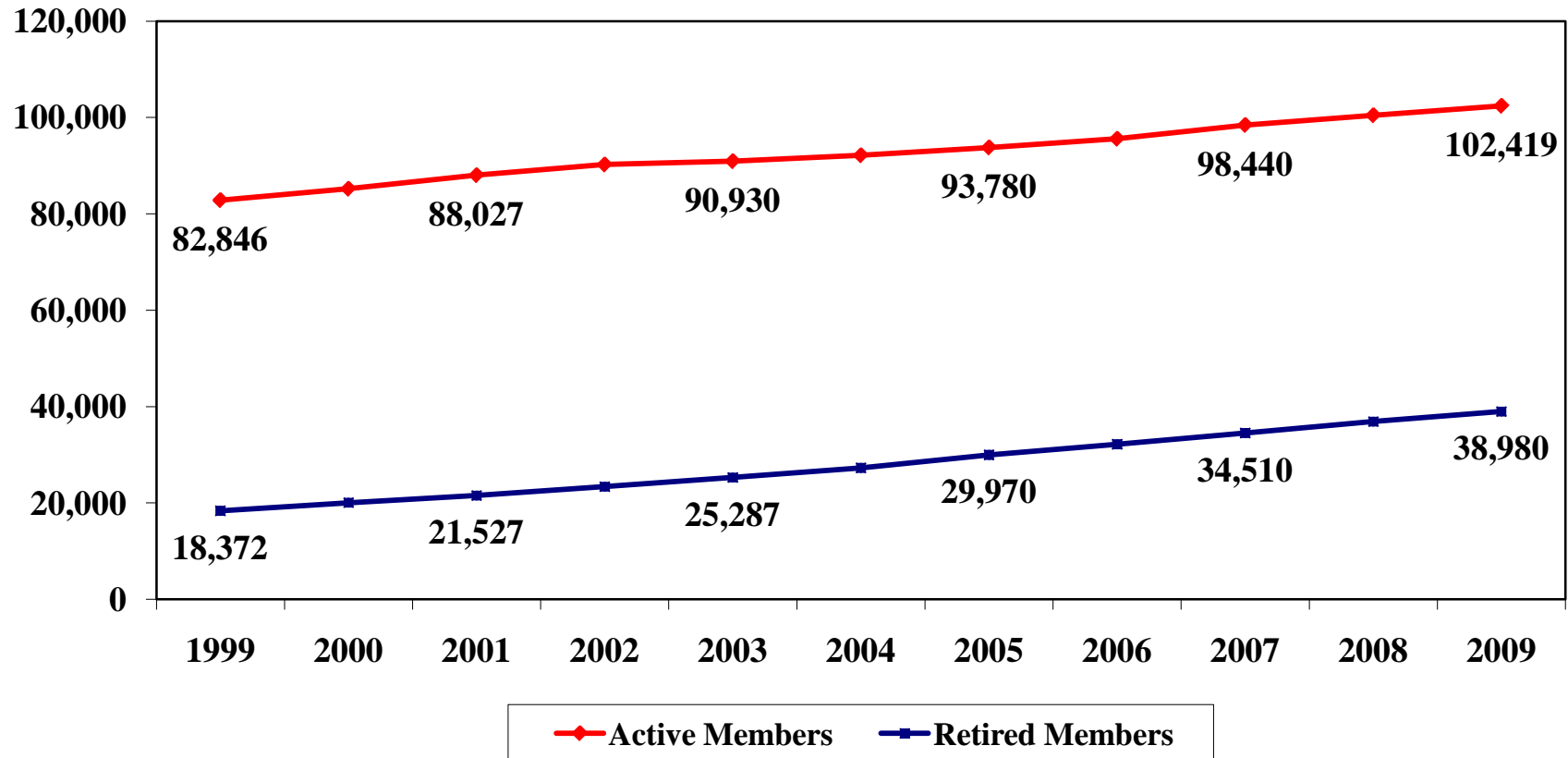
FUNDED RATIO PERCENTAGES

The System-wide funded ratio
has increased two years in a row



SOURCE: GRS

ACTIVE MEMBERS AND RETIRED MEMBERS

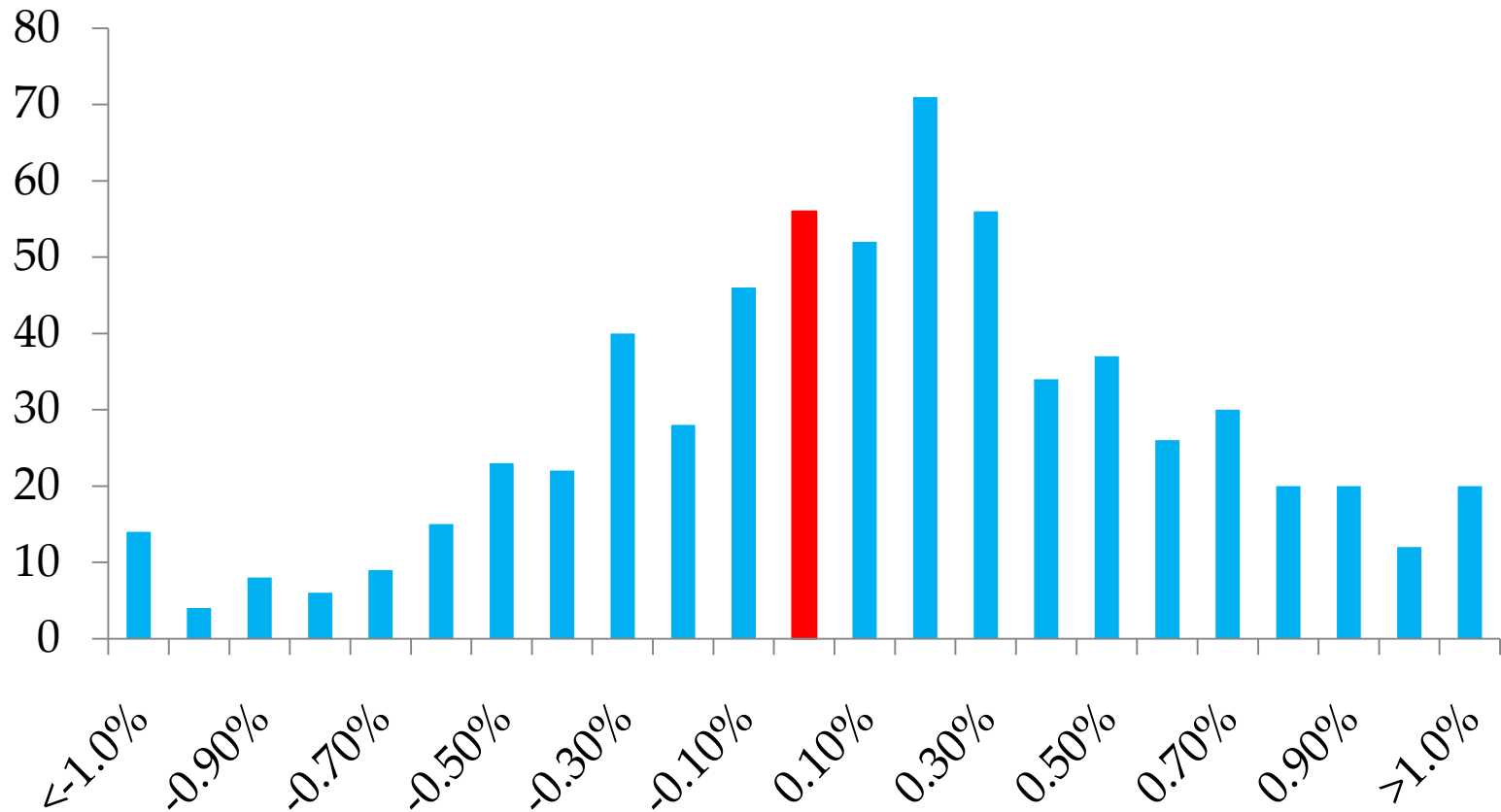


2.1% average increase in active members since 1999; 2.0% increase in 2009
7.8% average increase in retired members since 1999; 5.7% increase in 2009
There are currently 2.7 actives for every retiree, down from 4.5 in 1999

SOURCE: GRS

DISTRIBUTION OF RATE CHANGES FOR 2011 (CITIES WITH MORE THAN 10 MEMBERS)

Total Change



SOURCE: GRS

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

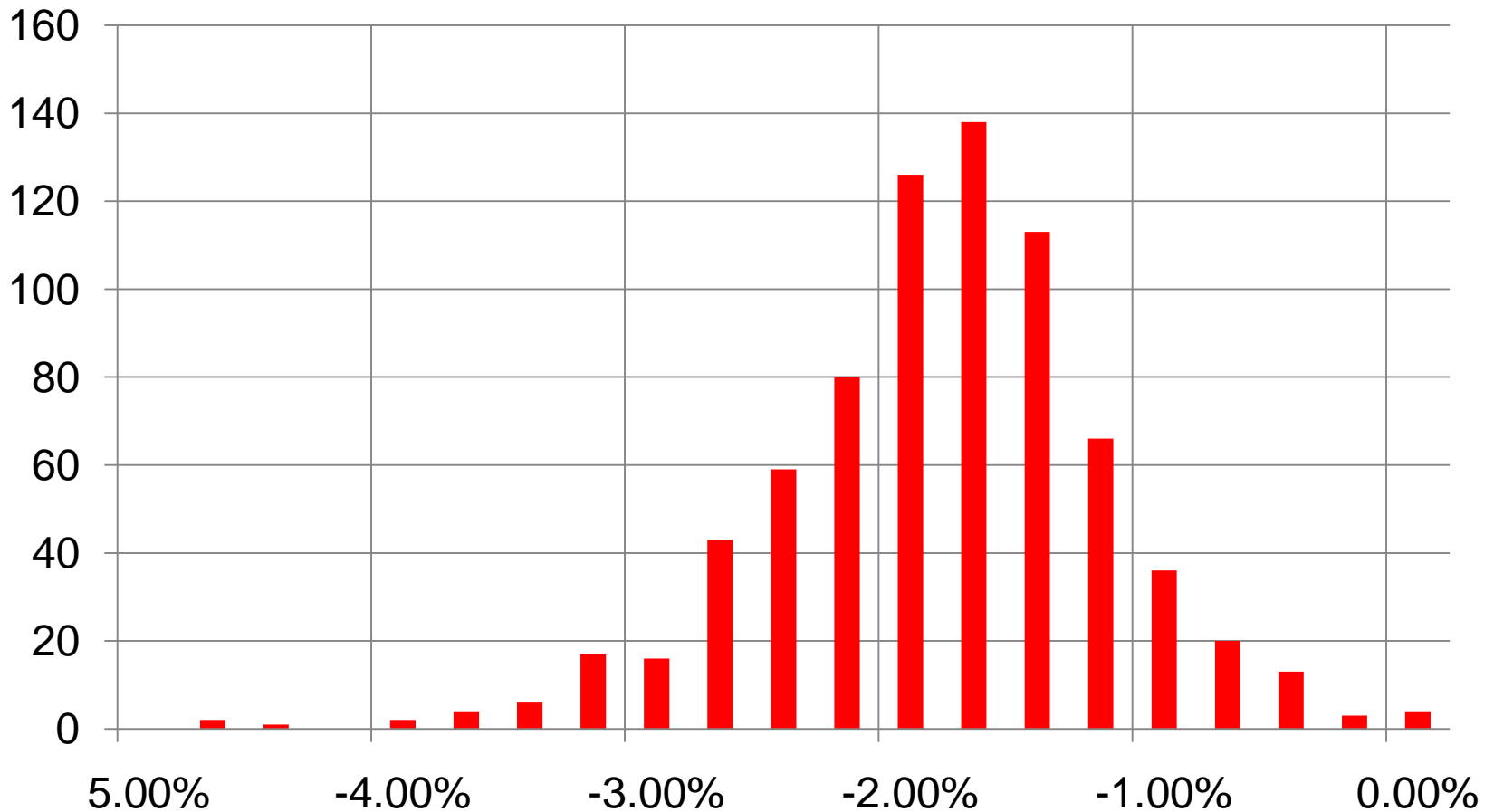
WITHOUT “RESTRUCTURING”

- 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 leverage and volatility
 - 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
- Small cities will be subject to conservative assumptions to ensure full funding

DISTRIBUTION OF RATE REDUCTIONS NEAREST + / - 0.25%



Only includes TMRS cities with more than 4 active employees

SOURCE: GRS

INTERIM LEGISLATIVE SESSION

- TMRS Advisory Committee on Retirement Matters held five 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
- Board approved at September meeting
- **Proposal:**
 - Stop future transfers to CSARF and redistribute current CSARF liabilities and assets back to employers (MAF)
 - Merge CSARF, MAF, and ESF

TIMING

- If passed during the 2011 legislative session, the Fund will likely be reallocated as of December 31, 2010
- Depending on date of bill passage and effective date, rates effective under restructuring could be in effect for last quarter of 2011
- TMRS will keep cities closely informed of bill's progress and potential for reduced rates in latter part of year

ISSUES IN 2010 AND BEYOND

- A 2010 year-end return of approximately 6% will provide 5% interest to members and 7.5% to city accounts, without drawing down or adding to the current 4% reserve
- Board is likely to allocate interest to cities in February based on year-end return
- If return is lower than 6%, the Board can choose to use reserve to supplement the return
- If the return is higher than 6%, Board can choose to build an additional reserve
- Current reserve guideline is 20% of total assets (guideline will decrease if Fund Restructuring passes)

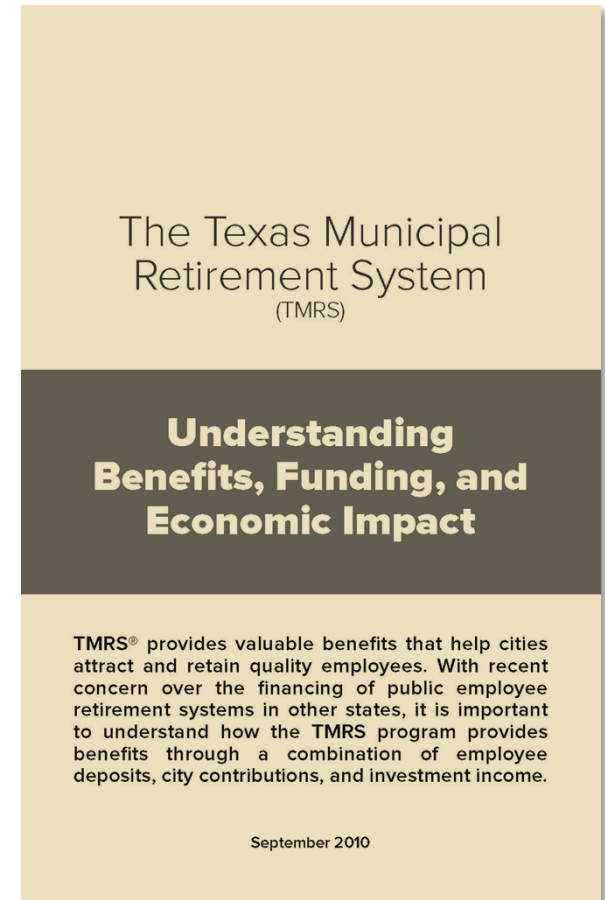
ISSUES IN 2010 AND BEYOND

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



NEW PUBLICATION FROM TMRS

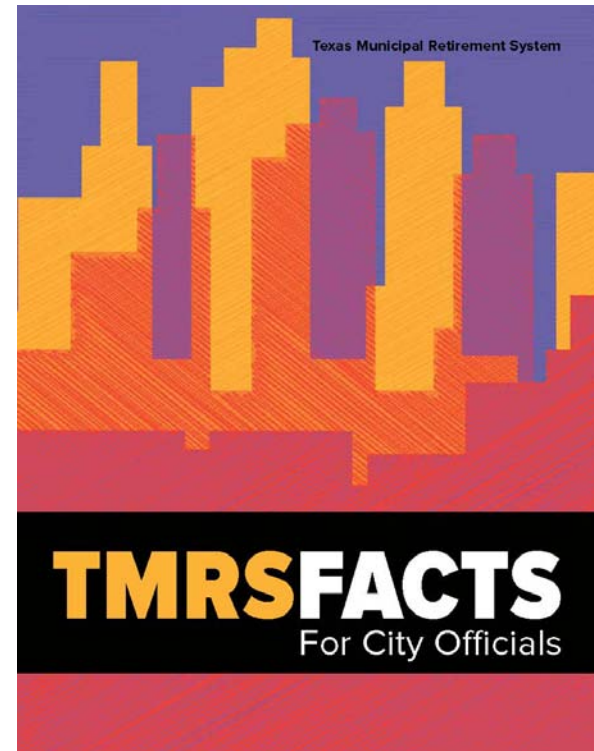
- “Understanding Benefits, Funding, and Economic Impact”
- Designed to help answer common questions about TMRS benefits and costs and to address possible misconceptions
- Available on the TMRS website and at the TMRS booth here at TML



OTHER TMRS RESOURCES

Print and E-mail Publications

- E-bulletins
- “TMRS FACTS for City Officials”
- “City’s Guide to USC and COLAs”



OTHER TMRS RESOURCES

Web-based Resources

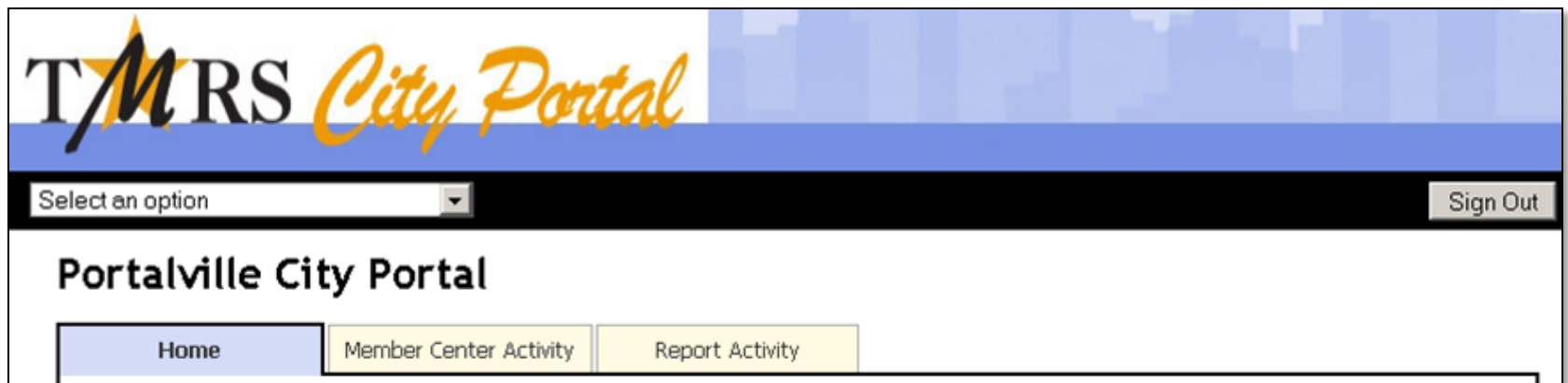
- Online calculator in MyTMRS
- NEW City Portal
- WWW.TMRS.COM



The screenshot shows the homepage of the Texas Municipal Retirement System (TMRS). The header features the TMRS logo on the left and the text "Texas Municipal Retirement System" in a large, bold font, with the tagline "Providing Retirement Security for Texas Municipal Employees" below it. A green graphic of a city skyline is in the background. On the left side, there is a navigation menu with links for "Members", "Retirees", and "Cities". In the center, there is a "News" section with a "News archive >>" link. On the right side, there is a search bar with the text "Search TMRS" and a "Go" button, and a "MyTMRS®" button. Below the search bar, there are buttons for "Request Estimate" and "Request Information".

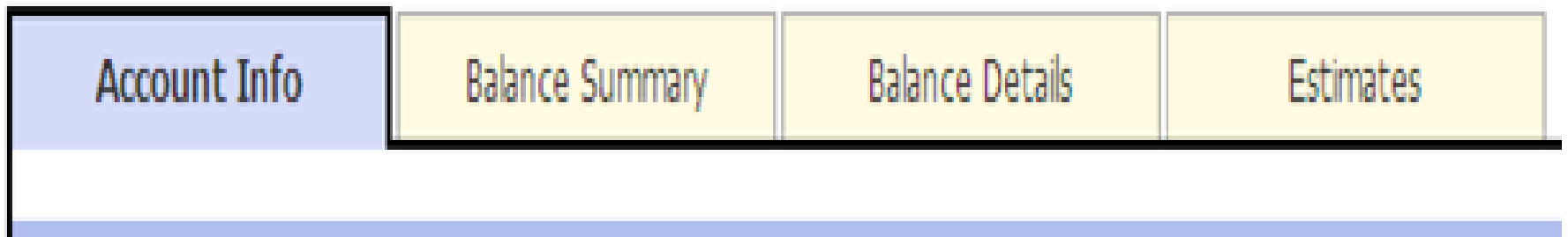
2010-11 CITY PORTAL DEVELOPMENT

- Online TMRS access for cities
- A way to perform web-based administrative functions
- A means to access a city's employee data
- TMRS Staff will present City Portal training as needed



WHAT CAN CITIES DO ON THE PORTAL?

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



INVESTMENTS

INVESTMENT UPDATE

Topics for Discussion

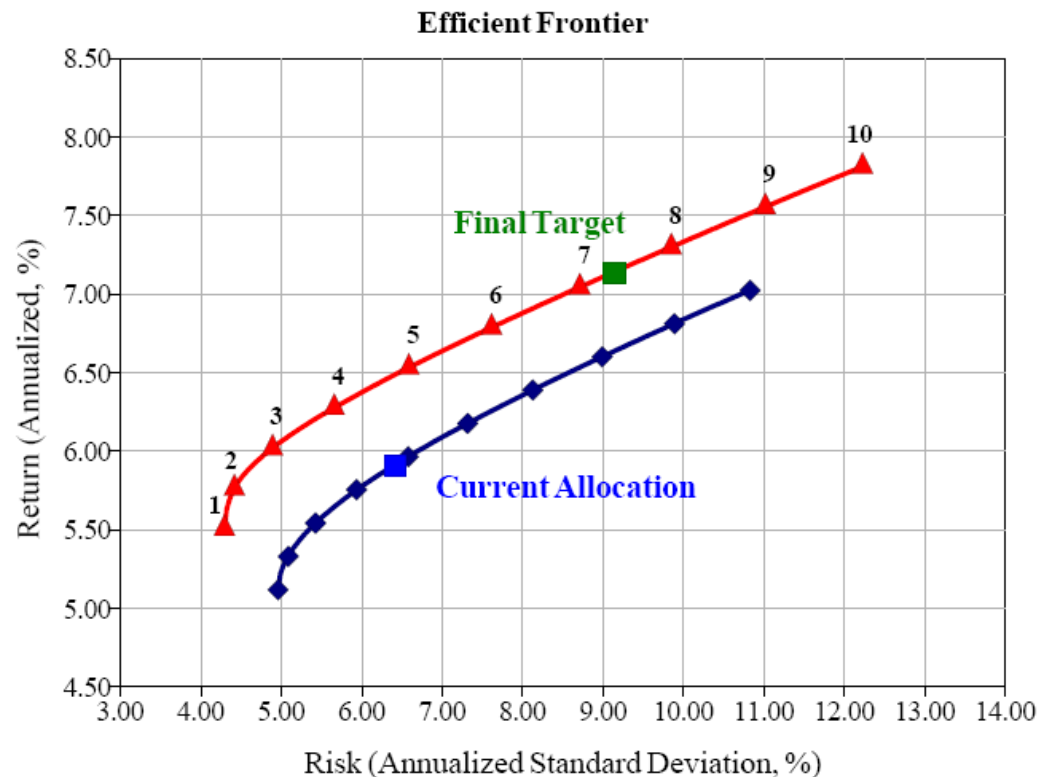
- Asset Allocation Review:
Diversification in Progress
- Performance Review
- Timeline and Next Steps



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

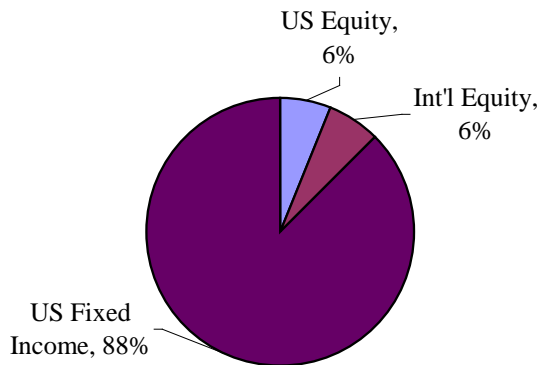


Source: R.V. Kuhns

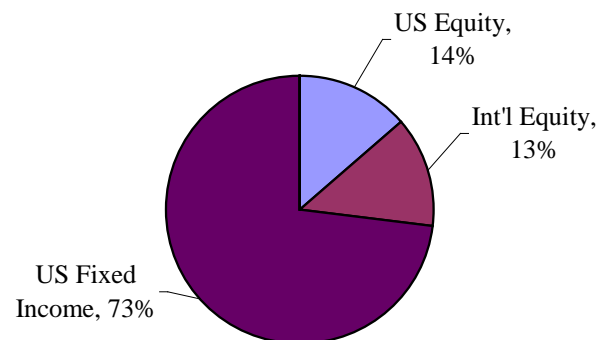
ASSET ALLOCATION – TOTAL FUND PROGRESS

- 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

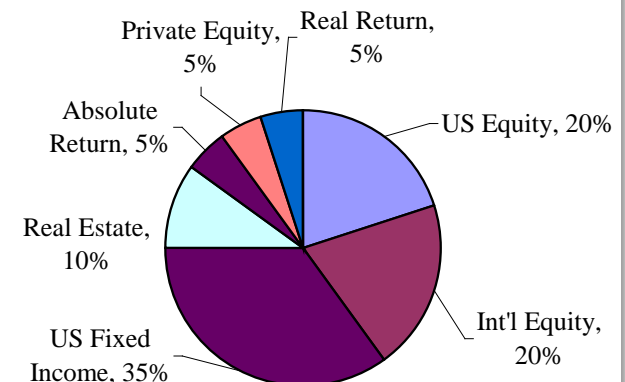
**TMRS Allocation
as of June 30, 2009**



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



TMRS Final Target



PERFORMANCE TO DATE – AUGUST 31, 2010

	Year to Date	1 Year	5 Years	10 Years	2009
Total Fund Composite	4.20	7.19	3.67	7.73	10.20
Actual Allocation Benchmark	4.14	6.83	3.95	6.86	4.06
Difference	0.06	0.36	-0.28	0.87	6.14
Total Fixed Income Composite	8.04	9.63	4.39	8.10	6.64
Fixed Income Benchmark	7.83	9.18	4.67	7.24	0.27
Difference	0.21	0.45	-0.28	0.86	6.37
Global Equity Composite	-5.98	1.73	N/A	N/A	30.25
Global Equity Benchmark	-6.06	1.63	N/A	N/A	30.07
Difference	0.08	0.10	N/A	N/A	0.18
Domestic Equity Composite	-4.27	5.63	N/A	N/A	28.42
Domestic Equity Benchmark	-4.26	5.64	-0.72	-1.26	28.34
Difference	-0.01	-0.01	N/A	N/A	0.08
Non-US Equity Composite	-7.76	-2.09	N/A	N/A	32.08
Non-US Equity Benchmark	-7.95	-2.34	0.96	1.10	31.78
Difference	0.19	0.25	N/A	N/A	0.30
TMRS Unallocated Cash	0.09	0.13	N/A	N/A	0.20
BofA ML 3 Mo US T-Bill Index	0.08	0.14	2.67	2.60	0.21
Difference	0.01	-0.01	N/A	N/A	-0.01

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

Source:
R.V. Kuhns

Footnotes: 1) The Actual Allocation Benchmark is calculated monthly using beginning of month investment weights applied to each corresponding benchmark return and currently consists of the Russell 3000 Index, MSCI ACW ex US IMI (Net), MSCI EAFE Index (Net), Barclays Capital US Aggregate Bond Index, and BofA ML 3 Mo US T-Bill Index. 2) The Fixed Income Benchmark is calculated monthly and consists of 100% Barclays Capital US Aggregate Bond Index beginning July 1, 2009, and 100% Barclays Capital Gov't/Credit Long Term Bond Index prior to July 1, 2009. 3) The Domestic Equity Benchmark is the Russell 3000 Index. 4) The Global Equity Benchmark and Non-U.S. Equity Benchmark are calculated monthly using beginning of month investment weights applied to each corresponding benchmark return. The Non-U.S. Equity Benchmark consists of the MSCI EAFE and MSCI ACW-ex US IMI Indices, and the Global Equity Benchmark adds the Russell 3000 Index.

PORTFOLIO REVIEW

Asset Classes: Accomplishments to Date

▪ **Equities**

- Increased investment in both domestic and international equities toward target allocation
- Non-U.S. allocation diversification — initiated move to expanded benchmark for exposure to small cap and emerging markets

▪ **Fixed Income**

- Moved to total return objective through shift to a core strategy
- Increased diversification from core only by addition of core plus strategy

PORTFOLIO REVIEW, CONT.

Asset Classes: Accomplishments to Date

- **Real Estate**

- Retained ORG as real estate consultant
- Began drafting real estate policy and implementation strategy

- **Real Return**

- Made decision to implement allocation using global inflation-linked bonds
- Manager selected at the September 24th Board meeting

REAL RETURN ALLOCATION

- Global Inflation-Linked Bond Characteristics:
 - Interest rate and maturity are adjusted for inflation over the life of the bond.
 - Many sovereign issuers offer a deflation-floor on the principal
 - e.g., TIPS holders guaranteed nominal principal value at maturity
- Global Linkers provide diversification
- Global Linkers offer attractive risk adjusted returns

REAL RETURN ALLOCATION

- Diversification Benefits: Low historical correlations to equity asset classes

Correlation Matrix

1/1/98 - 12/31/2009

	Russell 3000 Index	MSCI ACW ex US IMI	BC Aggregate Index	ML Global Govt Inflation Linked
Russell 3000 Index	1.00			
MSCI ACW ex US IMI	0.87	1.00		
BC Aggregate Index	(0.03)	0.03	1.00	
ML Global Govt Inflation Linked	0.22	0.38	0.67	1.00

Source: R.V. Kuhns

REAL RETURN ALLOCATION

Annualized Return as of 12/31/2009

Return and Risk

	3 Years	5 Years	7 Years	10 Years
Russell 3000 Index	(5.42)	0.76	6.20	(0.20)
MSCI ACW ex US IMI	(2.99)	6.49	13.25	3.07
BC Aggregate Index	6.04	4.97	4.75	6.33
ML Global Govt Inflation Linked	5.40	4.36	7.41	7.70

Annualized Standard Deviation as of 12/31/2009

INDICES REPRESENTED

- Russell 3000 Index:
U.S. equities
- MSCI ACW ex US IMI:
non U.S. equities
- BC Aggregate Index:
U.S. Bonds
- ML Global Govt
Inflation Linked:
Global Inflation-Linked
Bonds

	3 Years	5 Years	7 Years	10 Years
Russell 3000 Index	20.61	16.67	15.19	16.50
MSCI ACW ex US IMI	25.94	21.27	19.20	18.85
BC Aggregate Index	4.17	3.70	3.95	3.83
ML Global Govt Inflation Linked	11.79	9.76	9.43	8.56

Sharpe Ratio as of 12/31/2009

	3 Years	5 Years	7 Years	10 Years
Russell 3000 Index	(0.28)	(0.05)	0.31	(0.11)
MSCI ACW ex US IMI	(0.08)	0.27	0.62	0.10
BC Aggregate Index	0.86	0.53	0.57	0.86
ML Global Govt Inflation Linked	0.30	0.18	0.54	0.57

Standard Deviation is the historical volatility of the return, used as a measure of risk.

Sharpe Ratio is a risk-adjusted measure of return; the higher the better.

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

NEXT STEPS, CONT.

Asset Classes: Next Steps 2010 - 2011

- **Real Estate**
 - Adopt real estate policies and implementation strategy
 - 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

Source: R.V. Kuhns

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

QUESTIONS?