# SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT RETIREMENT BOARD OF AUTHORITY MEETING

PRESENTED TO: Retirement Board	of Authority	DATE:	002/22/2012
SUBJECT: Approval of Agen	da	ITEM #: Enclosure: Action Item	2011/2012-017 Yes Yes
Prepared by: Requested by:	Keenan Financial Services  Retirement Board of Authority	_	

## BACKGROUND:

Under California Government Code Section §54950 (The Ralph M. Brown Act) the "Legislative Body" is required to post an agenda detailing each item of business to be discussed. The Authority posts the agenda in compliance with California Government Code Section §54954.2.

### **STATUS:**

Unless items are added to the agenda according to G.C. 54954.2 (b) (1) (2) (3) the agenda is to be approved as posted.

# RECOMMENDATION:

Subject to changes or corrections, the agenda is to be approved.

### AGENDA

# SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT RETIREMENT BOARD OF AUTHORITY MEETING February 22, 2012

10:00 AM - 12:00 PM.

### SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

District Board Room 3401 CSM Drive San Mateo, CA. 94402 (650) 358-6828

#### I. CALL TO ORDER

#### II. ROLL CALL

### **MEMBERS**

Chief Financial Office, Interim Ray Chow Vice Chancellor of Human Resources Harry Joel Controller, Interim Anita Leong Classified Representative Stephanie Samuelsen Academic Representative Vacant

# PROGRAM COORDINATOR

Bob Schoenherr Senior Vice President Account Manager Roslyn Washington Account Manager Kenneth Threeths

### **CONSULTANTS**

Morgan Stanley Smith Barney Cary Allison Benefit Trust Company Scott Rankin

### **GUESTS**

# **OTHER**

None

#### III. APPROVAL OF AGENDA

Action 2011/2012-017

The Retirement Board of Authority retains the right to change the order in which agenda items are discussed. Subject to review by the Retirement Board, the agenda is to be approved as presented. Items may be deleted or added for discussion only according to G.C. Section 54954.2.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

Keenan & Associates License No. 0451271

Tel: 800-654-8102/Fax: 310-533-1329

San Mateo County Community College District Retirement Board of Authority Meeting February 22, 2012 Page 2

### IV. APPROVAL OF MINUTES

Action

2011/2012-018

The Retirement Board of Authority will review the minutes from the previous meeting, July 26, 2011, for any adjustments and adoption.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

### V. INVESTMENTS

PORTFOLIO REVIEW

Action

2011/2012-019

Morgan Stanley Smith Barney (MSSB) will review the overall performance of the District's Futuris Public Entity Investment Trust Portfolio.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

### VI. ADMINISTRATION

# DESIGNATION OF NEW RETIREMENT BOARD OF AUTHORITY MEMBER AND ELECTION OF CHAIRPERSON AND VICE CHAIRPERSON

Action

2011/2012-020

The Retirement Board of Authority has been duly appointed by the San Mateo County Community College District Board of Trustees and will elect a Chairperson.

PUBLIC COMMENTS:

BOARD CONSIDERATION

DISBURSEMENT'S Action

2011/2012-021

The Retirement Board of Authority (RBOA) members will ratify and acknowledge all reasonable expenses associated with the management and operation the District's Investment Trust.

PUBLIC COMMENTS:

BOARD CONSIDERATION

### STATUS OF ACTUARIAL STUDY

Information

2011/2012-022

The Retirement Board of Authority members shall review discount rate assumptions of the District's recent Actuarial Valuation Study dated April 12, 2011.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

Keenan & Associates License No. 0451271 Tel: 800-654-8102/Fax: 310-533-1329

San Mateo County Community College District Retirement Board of Authority Meeting February 22, 2012 Page 3

# STATUS OF UPDATES TO THE COMPREHENSIVE COMPLIANCE PLAN, INCLUDING THE SUBSTANTIVE PLAN

Information 2011/2012-023

Updating the "Substantive Plan" is a dynamic process that requires an annual review to incorporate modifications to program provisions or changes to cost arrangements. The Retirement Board of Authority will review the current status of updates to the "Substantive Plan".

PUBLIC COMMENTS:

BOARD CONSIDERATION:

### FUTURE TRANSFER OF ASSETS INTO THE TRUST

Information 2011/2012-024

Based on the actuarial study, the Retirement Board of Authority (RBOA) will discuss the percentage of payroll proposed to be transferred into District's Investment Trust.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

### VII. EDUCATION

Information 2011/2012-025

For OPEB plan governance, the Retirement Board of Authority is mandated to use the "prudent person" standard as codified by California's Constitution and Governmental Codes. This standard requires that plan fiduciaries be (1) "familiar with such matters" as managing investments in a plan that pays OPEB benefits and that they take into account (2) "the circumstances then prevailing" relative to keeping abreast of changes in the economy, the marketplace for investment products and services to OPEB plans. The Education Agenda is for the furtherance of these OPEB Investment Trust standards.

PUBLIC COMMENTS:

BOARD CONSIDERATION:

### VIII. INFORMATION REPORTS

### MARKET OVERVIEW

Information 2011/2012-026

Morgan Stanley Smith Barney (MSSB) will provide an overview of the actions of the capital markets since the last Retirement Board of Authority meeting.

PUBLIC COMMENTS:

BOARD CONSIDERATION

### RETIREMENT BOARD OF AUTHORITY COMMENTS

Information 2011/2012-027

Each member may report about various matters involving the Retirement Board of Authority. There will be no Retirement Board discussion except to ask questions or refer matters to staff, and no action will be taken unless listed on a subsequent agenda.

Keenan & Associates License No. 0451271 Tel: 800-654-8102/Fax: 310-533-1329

San Mateo County Community College District Retirement Board of Authority Meeting February 22, 2012 Page 4

### PROGRAM COORDINATOR/CONSULTANT COMMENTS

Information 2011/2012-028

The Program Coordinator and Consultants will report to the Retirement Board of Authority about various matters involving the Authority. There will be no Authority discussion except to ask questions, and no action will be taken unless listed on a subsequent agenda.

### VISITORS COMMENTS

Information 2011/2012-029

The public may address the Retirement Board of Authority on any matter pertaining to the Retirement Board that is not on the agenda. The Chairperson reserves the right to limit the time of presentations by individual or topic.

### IX DATE, TIME AND AGENDA ITEMS FOR NEXT MEETING

Information 2011/2012-030

In addition to standing Agenda items, members and visitors may suggest additional items for consideration at the next Retirement Board of Authority meeting.

PUBLIC COMMENTS

BOARD CONSIDERATION:

# X. ADJOURNMENT

Americans with Disabilities Act The San Mateo County Community College District Retirement Board of Authority conforms to the protections and prohibitions contained in Section 202 of the Americans with Disabilities Act of 1990 and the federal rules and regulations adopted in implementation thereof. A request for disability-related modification or accommodation, in order to participate in a public meeting of the San Mateo County Community College District Retirement Board of Authority meeting, shall be made to: Ray Chow, Interim Chief Financial Services, San Mateo County Community College District, 3401 CMS Drive, San Mateo, CA 94402.

Keenan & Associates License No. 0451271 Tel: 800-654-8102/Fax: 310-533-1329

# SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT RETIREMENT BOARD OF AUTHORITY MEETING

PRESENTED TO: Retirement Board	of Authority	DATE:	02/22/2012
SUBJECT: Approval of Minus	tes	ITEM #: Enclosure: Action Item	2011/2012-018 Yes Yes
Prepared by:	Keenan Financial Services  Retirement Board of Authority	 	

### BACKGROUND:

As a matter of record and in accordance with the Brown Act, minutes of each meeting are kept and recorded.

### **STATUS:**

The Retirement Board of Authority will review the minutes from the previous meeting on July 26, 2011.

## RECOMMENDATION:

Subject to changes or corrections, the minutes are to be approved.

		H	
	11		
		11	
		H	
111	<u> </u>		
	H		
1111	<u>                                      </u>		
		10111	
		1111111	1   1   1   1   1
			1 11 1 1 1 1
	<u></u>	III	
	100111111001111111		1 11 1 11 11 11 11 11 11
	H		
	<u>                                      </u>		
	11		
	1111 <u>1111   1   1   1   1</u>		
	11		
1101111111111111			

Keenan Financial Services 2355 Crenshaw Boulevard, Ste 200, Torrance, CA. 90501 Tel: 800-654-8102 Fax: 310-599-1329 www.keenan.com

	11	
11		
11		
	11	

Keenan Financial Services 2355 Crenshaw Boulevard, Ste 200, Torrance, CA. 90501 Tel: 800-654-8102 Fax: 310-599-1329 www.keenan.com

2

11	

Keenan Financial Services 2365 Crenshaw Boulevard, Ste 200, Torrance, CA. 90501 Tel: 800-654-8102 Fax: 310-599-1329 www.keenan.com

		TI CONTRACTOR OF THE CONTRACTO
	11	
	11	
	П	
	П	
П		
11	11111	

Keenan Financial Services 2355 Crenshaw Boulevard, Ste 200, Torrance, CA. 90501 Tel: 800-654-8102 Fax: 310-599-1329 www.keenan.com

# SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT RETIREMENT BOARD OF AUTHORITY MEETING

PRESENTED TO:		DATE:	02/22/2012
Retirement Board	of Authority		
SUBJECT:		ITEM #:	2011/2012-019
Portfolio Review		Enclosure:	Yes
		Action Item	Yes
Prepared by:	Morgan Stanley Smith Barney Retirement Board of Authority	_ _	

## BACKGROUND:

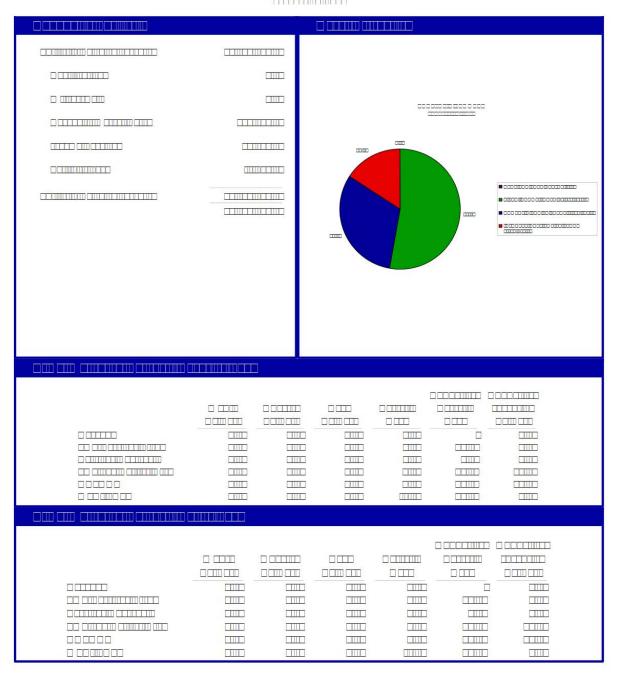
As Board members of the Retirement Board of Authority you have a fiduciary responsibility as described in Government Code section 53215, et seq. As part of fulfilling your fiduciary responsibility, it is important to periodically review the District's OPEB Trust Portfolio.

### **STATUS:**

Morgan Stanley Smith Barney (MSSB) will provide a review of the District's OPEB Trust Portfolio Performance Report.

# RECOMMENDATION:

The Retirement Board of Authority should review and accept the District's Public Entity Investment Trust Portfolio Report and file as appropriate.



# 

			0 000	0000		0 0000		
0000000000	1000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000				00000		
	00000000							
	0000 0 0000 0000 00000 0							
	000000000000000000000000000000000000000							
0001110011100		O O O	00000					
0001110011100				000000000		000000000		
			00000			000000000		
		00000						
				0111001111001110				
	) 	0000			00000	000000000		
	== ===================================			00000000				
			_					
	0000000 0000000000000	ппппп	ППП		ППП		ПШ	ПП

# 

	000000				
	000000000				
000000000					
	00 00 0 0 0 0 0 0				
	10 0 00				

 		U U U U U U U U U U U U U U U U U U U	
		www.	 
			11
		' -    -    -    -	

	П			
	m n	n'nnnm1		1111111
H				
11				
			11	
	ii	woo with	İHIIII	111111111
			п	
111111111111111111111111111111111111111			-	
H				
11				
П				
		ii	ii ii	
		_		11
			11 11	
11		_		

Weblink						Page 4 of 9
00000000			000000000		9	00000
	20		55555555	5000000		
000000000						00000
	000000000000000000000000000000000000000	@@cc@cc@c	=	000000000	0000	4
	000000000	-	=			4
00000000		00000000000	7	1	9	9
		0000000000		0000	0000	
	0.000000000000	l ±				4
000000000			4	1		4
000000000			4	1		4
			4			d
			<del>-</del>			4
			1			1
			1	[		1
			1	-		1
			7	-	-	7
00000000			4	1 4	4	4
			4	1		d
nomomena.		mmoome	+	i -	-	
			1			1
			1	[ ]		1
			7	-	-	7
	0.000000	1				4
I						I
000000000	$ \begin{array}{c} (1000000000000000000000000000000000000$		1			1
			#	1 =		4
		00000000	4	1		d
00000000			4		=	4
	-					
			+	+	-	†
			7	1	-	4
00000000		0000000 0000000 0000000	4	1 4		4
000000000			4			4
000000000			<u> </u>	<u> </u>	<u>.</u>	1
		200000 200000 2000000 2000000	4	1	4	4
000000000		000000	4	t =		4
000000000	<u> </u>		4	1		d l
Immono			1			1
			1	[		1
	P		Ī			1
		0000000	#	)		4
00000000		0000000				4
				,		]
			7	1	-	1
		0.000.000 0.000.000 0.000.000	7	1	9	7
00000000		0000000	4	1	4	4
		0000000 0000000 0000000	4	1		4
100000000			+	l H	-	d l
I			1	, ,		1
	000000		1			1
			4	) d		4
			4			4
I	p and no nate a weed no no come or no come no come a calabacters.	n-moome	Ţ		-	1
			Ī	[ ]		1
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7	1	-	7
	F				17	of 79
I*	•	•	·		• • • • • • • • • • • • • • • • • • • •	

https://www.vfi-web.com/TSSWEBLINK/Reports/frmReports.aspx?form=1107&menu=Transactions

# SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT RETIREMENT BOARD OF AUTHORITY MEETING

PRESENTED TO: Retirement Board	of Authority	DATE:	02/22/2012
SUBJECT: Status of the Actu	narial Valuation Study	ITEM #: Enclosure: Action Item	2011/2012-022 Yes No
Prepared by: Requested by:	Keenan Financial Services  Retirement Board of Authority	_	

## BACKGROUND:

Paragraph 12, of GASB Statement 45, states that an Actuarial Study should be performed at least biannually. The Retirement Board of Authority should discuss the need for obtaining an updated study.

### **STATUS:**

The Retirement Board of Authority will review discount rate assumptions of the Actuarial Valuation Report that was prepared by Total Compensation Systems (TCS).

# RECOMMENDATION:

The Retirement Board of Authority shall hear and receive the information reviewed.

# San Mateo Community College District Actuarial Study of Retiree Health Liabilities As of February 1, 2011

Prepared by: Total Compensation Systems, Inc.

Date: April 12, 2011

# **Table of Contents**

PART I: EXECUTIVE SUMMARY	3
A. Introduction B. General Findings	
C. DESCRIPTION OF RETIREE BENEFITS	
D. RECOMMENDATIONS	
PART II: BACKGROUND	7
A. SUMMARY	7
B. ACTUARIAL ACCRUAL	
PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS	9
A. Introduction	
B. Medicare	
C. LIABILITY FOR RETIREE BENEFITS.	
D. COST TO PREFUND RETIREE BENEFITS	
1. Normal Cost	
Amortization of Unfunded Actuarial Accrued Liability (UAAL)	
4. Other Components of Annual OPEB Cost (AOC)	
PART IV: "PAY AS YOU GO" FUNDING OF RETIREE BENEFITS	
PART V: RECOMMENDATIONS FOR FUTURE VALUATIONS	14
PART VI: APPENDICES	15
APPENDIX A: MATERIALS USED FOR THIS STUDY	15 🗆
APPENDIX B: EFFECT OF ASSUMPTIONS USED IN CALCULATIONS	
APPENDIX C: ACTUARIAL ASSUMPTIONS AND METHODS	17 🗆
APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE	
APPENDIX E: CALCULATION OF GASB 43/45 ACCOUNTING ENTRIES	
APPENDIX F: GLOSSARY OF RETIREE HEALTH VALUATION TERMS	23 🗆

# San Mateo Community College District Actuarial Study of Retiree Health Liabilities

### PART I: EXECUTIVE SUMMARY

### A. Introduction

San Mateo Community College District engaged Total Compensation Systems, Inc. (TCS) to analyze liabilities associated with its current retiree health program as of February 1, 2011 (the valuation date). The numbers in this report are based on the assumption that they will first be used to determine accounting entries for the fiscal year ending June 30. 2011. If the report will first be used for a different fiscal year, the numbers will need to be adjusted accordingly.

This report does not reflect any cash benefits paid unless the retiree is required to provide proof that the cash benefits are used to reimburse the retiree's cost of health benefits. Costs and liabilities attributable to cash benefits paid to retirees are reportable under Governmental Accounting Standards Board (GASB) Standards 25/27.

This actuarial study is intended to serve the following purposes:

- » To provide information to enable San Mateo CCD to manage the costs and liabilities associated with its retiree health benefits.
- » To provide information to enable San Mateo CCD to communicate the financial implications of retiree health benefits to internal financial staff, the Board, employee groups and other affected parties.
- » To provide information needed to comply with Governmental Accounting Standards Board Accounting Standards 43 and 45 related to "other postemployment benefits" (OPEB's).

Because this report was prepared in compliance with GASB 43 and 45, as appropriate, San Mateo CCD should not use this report for any other purpose without discussion with TCS. This means that any discussions with employee groups, governing Boards, etc. should be restricted to the implications of GASB 43 and 45 compliance.

This actuarial report includes several estimates for San Mateo CCD's retiree health program. In addition to the tables included in this report, we also performed cash flow adequacy tests as required under Actuarial Standard of Practice 6 (ASOP 6). Our cash flow adequacy testing covers a twenty-year period. We would be happy to make this cash flow adequacy test available to San Mateo CCD in spreadsheet format upon request.

We calculated the following estimates separately for active employees and retirees. As requested, we also separated results by the following employee classifications: AFSCME, Faculty, CSEA and Management. We estimated the following:

П	the total liability created. (The actuarial present value of total projected benefits or APVTPB)
П	the ten year "pay-as-you-go" cost to provide these benefits.
П	the "actuarial accrued liability (AAL)." (The AAL is the portion of the APVTPB attributable to employees' service prior to the valuation date.)

### **Total Compensation Systems, Inc.**

П	the amount necessary to amortize the UAAL over a period of 30 years.
П	the annual contribution required to fund retiree benefits over the working lifetime of eligible employees (the "normal cost").
П	The Annual Required Contribution (ARC) which is the basis of calculating the annual OPEB cost and net OPEB obligation under GASB 43 and 45.

We summarized the data used to perform this study in Appendix A. No effort was made to verify this information beyond brief tests for reasonableness and consistency.

All cost and liability figures contained in this study are estimates of future results. Future results can vary dramatically and the accuracy of estimates contained in this report depends on the accuracy assumptions used. Normal costs and liabilities could easily vary by 10 - 20% or more from estimates contained in this report.

### **B.** General Findings

We estimate the "pay-as-you-go" cost of providing retiree health benefits in the year beginning February 1, 2011 to be \$7,465,566 (see Section IV.A.). The "pay-as-you-go" cost is the cost of benefits for current retirees.

For current employees, the value of benefits "accrued" in the year beginning February 1, 2011 (the normal cost) is \$1,204,418. This normal cost would increase each year based on covered payroll. Had San Mateo CCD begun accruing retiree health benefits when each current employee and retiree was hired, a substantial liability would have accumulated. We estimate the amount that would have accumulated to be \$118,923,929. This amount is called the "actuarial accrued liability" (AAL). Of this amount, the remaining unamortized balance of the initial AAL is \$116,254,524. This leaves a "residual" AAL of \$2,669,405.

The District has established a GASB 45 trust to cover OPEB liabilities. At February 1, 2011 the actuarial value of plan assets was \$15,643,762. This leaves an unfunded residual AAL of *negative* \$12,974,357. We calculated the annual cost to amortize the unfunded actuarial accrued liability using a 7% discount rate. We used a 30 year amortization period. The current year cost to amortize the unfunded residual actuarial accrued liability is *negative* \$739,731.

Combining the normal cost, initial and residual UAAL amortization costs produces a total annual required contribution (ARC) of \$7,702,017. The ARC is used as the basis for determining expenses and liabilities under GASB 43/45. The ARC is used in lieu of (rather than in addition to) the "pay-as-you-go" cost.

We based all of the above estimates on employees as of January, 2011. Over time, liabilities and cash flow will vary based on the number and demographic characteristics of employees and retirees.

### C. Description of Retiree Benefits

Following is a description of the current retiree benefit plan:

sustaining basis.

	<b>Faculty</b>	<b>AFSCME</b>	<u>CSEA</u>	<b>Management</b>
Benefit types provided	Medical, Part B	Medical, Part B	Medical, Part B	Medical, Part B
Duration of Benefits	Lifetime	Lifetime	Lifetime	Lifetime
Required Service	Age + Service = 75	Age + Service = 75	Age + Service = $75$	Age + Service = 75
Minimum Age	55	50	50	50
Dependent Coverage	Yes	Yes	Yes	Yes
College Contribution %	100%	100%	100%	100%
College Cap	\$450 per month before age 65 After 65, Lowest cost employee only rate for medical	\$450 per month before age 65 After 65, Lowest cost employee only rate for medical	\$450 per month before age 65 After 65, Lowest cost employee only rate for medical	\$450 per month before age 65 After 65, Lowest cost employee only rate for medical

### D. Recommendations

It is outside the scope of this report to make specific recommendations of actions San Mateo CCD should take to manage the substantial liability created by the current retiree health program. Total Compensation Systems, Inc. can assist in identifying and evaluating options once this report has been studied. The following recommendations are intended only to allow the District to get more information from this and future studies. Because we have not conducted a comprehensive administrative audit of San Mateo CCD's practices, it is possible that San Mateo CCD is already complying with some or all of our recommendations.

- □ We recommend that San Mateo CCD inventory all benefits and services provided to retirees whether contractually or not and whether retiree-paid or not. For each, San Mateo CCD should determine whether the benefit is material and subject to GASB 43 and/or 45.
   □ We recommend that San Mateo CCD conduct a study whenever events or contemplated actions significantly affect present or future liabilities, but no less frequently than every two or three years, as required under GASB 43/45.
   □ We recommend that the District communicate the magnitude of these costs to employees and include employees in discussions of options to control the costs.
   □ Under GASB 45, it is important to isolate the cost of retiree health benefits. San Mateo CCD should have all premiums, claims and expenses for retirees separated from active employee premiums, claims, expenses, etc. To the extent any retiree benefits are made available to retirees over the age of 65 even on a retiree-pay-all basis all premiums, claims and expenses for post-65 retiree coverage should be segregated from those for pre-65 coverage. Furthermore, San Mateo CCD should arrange for the rates or prices of all retiree benefits to be set on what is expected to be a self-
- San Mateo CCD should establish a way of designating employees as eligible or ineligible for future OPEB benefits. Ineligible employees can include those in ineligible job classes; those hired after a designated date restricting eligibility; those who, due to their age at hire cannot qualify for District-paid OPEB benefits; employees who exceed the termination age for OPEB benefits, etc.
- □ Several assumptions were made in estimating costs and liabilities under San Mateo CCD's

# Total Compensation Systems, Inc.

retiree health program. Further studies may be desired to validate any assumptions where there is any doubt that the assumption is appropriate. (See Appendices B and C for a list of assumptions and concerns.) For example, San Mateo CCD should maintain a retiree database that includes – in addition to date of birth, gender and employee classification – retirement date and (if applicable) dependent date of birth, relationship and gender. It will also be helpful for San Mateo CCD to maintain employment termination information – namely, the number of OPEB-eligible employees in each employee class that terminate employment each year for reasons other than death, disability or retirement.

Respectfully submitted,

Geoffrey L. Kischuk, FSA, MAAA, FCA Consultant Total Compensation Systems, Inc. (805) 496-1700

### PART II: BACKGROUND

### A. Summary

Accounting principles provide that the cost of retiree benefits should be "accrued" over employees' working lifetime. For this reason, the Governmental Accounting Standards Board (GASB) issued in 2004 Accounting Standards 43 and 45 for retiree health benefits. These standards apply to all public employers that pay any part of the cost of retiree health benefits for current or future retirees (including early retirees).

### B. Actuarial Accrual

To actuarially accrue retiree health benefits requires determining the amount to expense each year so that the liability accumulated at retirement is, on average, sufficient (with interest) to cover all retiree health expenditures without the need for additional expenses. There are many different ways to determine the annual accrual amount. The calculation method used is called an "actuarial cost method."

Under most actuarial cost methods, there are two components of actuarial cost - a "normal cost" and amortization of something called the "unfunded actuarial accrued liability." Both accounting standards and actuarial standards usually address these two components separately (though alternative terminology is sometimes used).

The normal cost can be thought of as the value of the benefit earned each year if benefits are accrued during the working lifetime of employees. This report will not discuss differences between actuarial cost methods or their application. Instead, following is a description of a commonly used, generally accepted actuarial cost method that will be permitted under GASB 43 and 45. This actuarial cost method is called the "entry age normal" method.

Under the entry age normal cost method, the actuary determines the annual amount needing to be expensed from hire until retirement to fully accrue the cost of retiree health benefits. This amount is the normal cost. Under GASB 43 and 45, normal cost can be expressed either as a level dollar amount or a level percentage of payroll.

The normal cost is determined using several key assumptions:

П	The current <i>cost of retiree health benefits</i> (often varying by age, Medicare status and/or dependent coverage). The higher the current cost of retiree benefits, the higher the normal cost.
П	The "trend" rate at which retiree health benefits are expected to increase over time. A higher trend rate increases the normal cost. A "cap" on District contributions can reduce trend to zero once the cap is reached thereby dramatically reducing normal costs.
П	Mortality rates varying by age and sex. (Unisex mortality rates are not often used as individual OPEB benefits do not depend on the mortality table used.) If employees die prior to retirement, past contributions are available to fund benefits for employees who live to retirement. After retirement, death results in benefit termination or reduction. Although higher mortality rates reduce normal costs, the mortality assumption is not likely to vary from employer to employer.
П	<b>Employment termination rates</b> have the same effect as mortality inasmuch as higher termination rates reduce normal costs. Employment termination can vary considerably between public agencies.
П	The <i>service requirement</i> reflects years of service required to earn full or partial retiree benefits.

### **Total Compensation Systems, Inc.**

While a longer service requirement reduces costs, cost reductions are not usually substantial unless the service period exceeds 20 years of service. П Retirement rates determine what proportion of employees retire at each age (assuming employees reach the requisite length of service). Retirement rates often vary by employee classification and implicitly reflect the minimum retirement age required for eligibility. Retirement rates also depend on the amount of pension benefits available. Higher retirement rates increase normal costs but, except for differences in minimum retirement age, retirement rates tend to be consistent between public agencies for each employee type. П Participation rates indicate what proportion of retirees are expected to elect retiree health benefits if a significant retiree contribution is required. Higher participation rates increase costs. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefit liabilities. The discount rate depends on the nature of underlying assets. For example, employer funds earning money market rates in the county treasury are likely to earn far less than an irrevocable trust containing a diversified asset portfolio including stocks, bonds, etc. A higher discount rate can dramatically lower normal costs. GASB 43 and 45 require the interest assumption to reflect likely long term investment return. The assumptions listed above are not exhaustive, but are the most common assumptions used in actuarial cost calculations. The actuary selects the assumptions which - taken together - will yield reasonable results. It's not necessary (or even possible) to predict individual assumptions with complete accuracy. If all actuarial assumptions are exactly met and an employer expensed the normal cost every year for all past and current employees and retirees, a sizeable liability would have accumulated (after adding interest and subtracting retiree benefit costs). The liability that would have accumulated is called the actuarial accrued liability or AAL. The excess of AAL over the actuarial value of plan assets is called the unfunded actuarial accrued liability (or UAAL). Under GASB 43 and 45, in order for assets to count toward offsetting the AAL, the assets have to be held in an irrevocable trust that is safe from creditors and can only be used to provide OPEB benefits to eligible participants. The actuarial accrued liability (AAL) can arise in several ways. At inception of GASB 43 and 45, there is usually a substantial UAAL. Some portion of this amount can be established as the "transition obligation" subject to certain constraints. UAAL can also increase as the result of operation of a retiree health plan - e.g., as a result of plan changes or changes in actuarial assumptions. Finally, AAL can arise from actuarial gains and losses. Actuarial gains and losses result from differences between actuarial assumptions and actual plan experience. Under GASB 43 and 45, employers have several options on how the UAAL can be amortized as follows: The employer can select an amortization period of 1 to 30 years. (For certain situations that result in a reduction of the AAL, the amortization period must be at least 10 years.) ☐ The employer may apply the same amortization period to the total combined UAAL or can apply different periods to different components of the UAAL. ☐ The employer may elect a "closed" or "open" amortization period. ☐ The employer may choose to amortize on a level dollar or level percentage of payroll method.

### PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS

### A. Introduction.

We calculated the actuarial present value of projected benefits (APVPB) separately for each employee. We determined eligibility for retiree benefits based on information supplied by San Mateo CCD. We then selected assumptions for the factors discussed in the above Section that, based on plan experience and our training and experience, represent our best prediction of future plan experience. For each employee, we applied the appropriate factors based on the employee's age, sex and length of service.

We summarized actuarial assumptions used for this study in Appendix C.

### B. Medicare

The extent of Medicare coverage can affect projections of retiree health costs. The method of coordinating Medicare benefits with the retiree health plan's benefits can have a substantial impact on retiree health costs. We will be happy to provide more information about Medicare integration methods if requested.

### C. Liability for Retiree Benefits.

For each employee, we projected future premium costs using an assumed trend rate (see Appendix C). To the extent San Mateo CCD uses contribution caps, the influence of the trend factor is further reduced.

We multiplied each year's projected cost by the probability that premium will be paid; i.e. based on the probability that the employee is living, has not terminated employment and has retired. The probability that premium will be paid is zero if the employee is not eligible. The employee is not eligible if s/he has not met minimum service, minimum age or, if applicable, maximum age requirements.

The product of each year's premium cost and the probability that premium will be paid equals the expected cost for that year. We discounted the expected cost for each year to the valuation date February 1, 2011 at 5% interest.

Finally, we multiplied the above discounted expected cost figures by the probability that the retiree would elect coverage. A retiree may not elect to be covered if retiree health coverage is available less expensively from another source (e.g. Medicare risk contract) or the retiree is covered under a spouse's plan.

For any current retirees, the approach used was similar. The major difference is that the probability of payment for current retirees depends only on mortality and age restrictions (i.e. for retired employees the probability of being retired and of not being terminated are always both 1.0000).

We added the APVPB for all employees to get the actuarial present value of total projected benefits (APVTPB). The APVTPB is the estimated present value of all future retiree health benefits for all **current** employees and retirees. The APVTPB is the amount on February 1, 2011 that, if all actuarial assumptions are exactly right, would be sufficient to expense all promised benefits until the last current employee or retiree dies or reaches the maximum eligibility age.

Actuarial Present Value of Total Projected Benefi	Actuarial	Present	Value o	f Total Pr	oiected	Benefits
---	-----------	---------	---------	------------	---------	----------

February 1, 2011	<u>Total</u>	<u>AFSCME</u>	<u>Faculty</u>	<u>CSEA</u>	<u> Management</u>
Active: Pre-65	\$8,593,236	\$764,720	\$4,541,662	\$2,079,389	\$1,207,465
Post-65	\$40,254,391	\$3,478,820	\$20,193,962	\$10,230,171	\$6,351,438
Subtotal	\$48,847,627	\$4,243,540	\$24,735,624	\$12,309,560	\$7,558,903
Retiree: Pre-65	\$3,751,604	\$0	\$1,334,330	\$2,383,986	\$33,288
Post-65	\$73,702,107	\$0	\$47,269,487	\$25,388,031	\$1,044,589
Subtotal	\$77,453,711	\$0	\$48,603,817	\$27,772,017	\$1,077,877
-					
Grand Total	\$126,301,338	\$4,243,540	\$73,339,441	\$40,081,577	\$8,636,780
Subtotal Pre-65	\$12,344,840	\$764,720	\$5,875,992	\$4,463,375	\$1,240,753
Subtotal Post-65	\$113,956,498	\$3,478,820	\$67,463,449	\$35,618,202	\$7,396,027

The APVTPB should be accrued over the working lifetime of employees. At any time much of it has not been "earned" by employees. The APVTPB is used to develop expense and liability figures. To do so, the APVTFB is divided into two parts: the portions attributable to service rendered prior to the valuation date (the past service liability or actuarial accrued liability under GASB 43 and 45) and to service after the valuation date but prior to retirement (the future service liability).

The past service and future service liabilities are each funded in a different way. We will start with the future service liability which is funded by the normal cost.

# D. Cost to Prefund Retiree Benefits

### 1. Normal Cost

The average hire age for eligible employees is 36. To accrue the liability by retirement, the District would accrue the retiree liability over a period of about 24 years (assuming an average retirement age of 60). We applied an "entry age normal" actuarial cost method to determine funding rates for active employees. The table below summarizes the calculated normal cost.

Normal	Cost	Year	Begir	ıning

February 1, 2011	Total	AFSCME	<b>Faculty</b>	<u>CSEA</u>	Management
# of Employees	763	64	286	271	142
Per Capita Normal Cost					
Pre-65 Benefit	N/A	\$180	\$218	\$190	\$200
Post-65 Benefit	N/A	\$1,079	\$1,508	\$1,262	\$1,467
First Year Normal Cost					
Pre-65 Benefit	\$153,758	\$11,520	\$62,348	\$51,490	\$28,400
Post-65 Benefit	\$1,050,660	\$69,056	\$431,288	\$342,002	\$208,314
Total	\$1,204,418	\$80,576	\$493,636	\$393,492	\$236,714

### **Total Compensation Systems, Inc.**

Accruing retiree health benefit costs using normal costs levels out the cost of retiree health benefits over time and more fairly reflects the value of benefits "earned" each year by employees. This normal cost would increase each year based on covered payroll.

### 2. Amortization of Unfunded Actuarial Accrued Liability (UAAL)

If actuarial assumptions are borne out by experience, the District will fully accrue retiree benefits by expensing an amount each year that equals the normal cost. If no accruals had taken place in the past, there would be a shortfall of many years' accruals, accumulated interest and forfeitures for terminated or deceased employees. This shortfall is called the actuarial accrued liability (AAL). We calculated the AAL as the APVTPB minus the present value of future normal costs.

The initial UAAL was amortized using a closed amortization period of 30 years. The District can amortize the remaining or residual UAAL over many years. The table below shows the annual amount necessary to amortize the UAAL over a period of 30 years at 5% interest. (Thirty years is the longest amortization period allowable under GASB 43 and 45.) GASB 43 and 45 will allow amortizing the UAAL using either payments that stay the same as a dollar amount, or payments that are a flat percentage of covered payroll over time. The figures below reflect the level percentage of payroll method. This amortization payment would increase each year based on covered payroll.

Actuarial Accrued Liability					
as of February 1, 2011	Total	AFSCME	Faculty	CSEA	Management
Active: Pre-65	\$7,647,890	\$683,285	\$4,193,054	$$1,7\overline{22,460}$	\$1,049,091
Post-65	\$33,822,328	\$2,990,663	\$17,782,490	\$7,859,410	\$5,189,765
Subtotal	\$41,470,218	\$3,673,948	\$21,975,544	\$9,581,870	\$6,238,856
Retiree: Pre-65	\$3,751,604	\$0	\$1,334,330	\$2,383,986	\$33,288
Post-65	\$73,702,107	\$0	\$47,269,487	\$25,388,031	\$1,044,589
Subtotal	\$77,453,711	\$0	\$48,603,817	\$27,772,017	\$1,077,877
Subtot Pre-65	\$11,399,494	\$683,285	\$5,527,384	\$4,106,446	\$1,082,379
Subtot Post-65	\$107,524,434	\$2,990,663	\$65,051,977	\$33,247,440	\$6,234,354
Grand Total	\$118,923,929	\$3,673,948	\$70,579,361	\$37,353,886	\$7,316,734
Unamortized Initial UAAL	\$116,254,524				
Actuarial Value of Plan Assets	\$15,643,762				
Residual AAL	\$(12,974,357)				
Residual UAAL Amortization at 5.0% over 30 Years	\$(739,731)				

### 3. Annual Required Contributions (ARC)

If the District determines retiree health plan expenses in accordance with GASB 43 and 45, costs will include both normal cost and one or more components of UAAL amortization costs. The sum of normal cost and UAAL amortization costs is called the Annual Required Contribution (ARC) and is shown below.

### Annual Required Contribution (ARC) Year Beginning

February 1, 2011		<u>Total</u>
Normal Cost		\$1,204,418
Initial UAAL Amortization		\$7,237,330
Residual UAAL Amortization		\$(739,731)
	ARC —	\$7,702,017

The normal cost remains as long as there are active employees who may some day qualify for District-paid retiree health benefits. This normal cost would increase each year based on covered payroll.

### 4. Other Components of Annual OPEB Cost (AOC)

Expense and liability amounts may include more components of cost than the normal cost plus amortization of the UAAL. This will apply to employers that don't fully fund the Annual Required Cost (ARC) through an irrevocable trust.

- The annual OPEB cost (AOC) will include assumed interest on the net OPEB obligation (NOO). The annual OPEB cost will also include an amortization adjustment for the net OPEB obligation. (It should be noted that there is no NOO if the ARC is fully funded through a qualifying "plan".)
- □ The net OPEB obligation will equal the accumulated differences between the (AOC) and qualifying "plan" contributions.

## PART IV: "PAY AS YOU GO" FUNDING OF RETIREE BENEFITS

We used the actuarial assumptions shown in Appendix C to project ten year cash flow under the retiree health program. Because these cash flow estimates reflect average assumptions applied to a relatively small number of employees, estimates for individual years are <u>certain</u> to be *in*accurate. However, these estimates show the size of cash outflow.

The following table shows a projection of annual amounts needed to pay the District share of retiree health premiums.

Year					
Beginning					
February 1	Total	AFSCME	Faculty	CSEA	Management
2011	\$7,465,566	\$4,532	\$4,733,079	\$2,601,753	\$126,202
2012	\$7,588,296	\$9,065	\$4,856,982	\$2,569,977	\$152,272
2013	\$7,868,911	\$19,895	\$5,057,792	\$2,586,668	\$204,556
2014	\$8,109,922	\$32,004	\$5,223,033	\$2,605,196	\$249,689
2015	\$8,327,117	\$51,353	\$5,360,553	\$2,623,416	\$291,795
2016	\$8,513,663	\$76,739	\$5,467,019	\$2,643,453	\$326,452
2017	\$8,680,535	\$107,206	\$5,544,383	\$2,659,475	\$369,471
2018	\$8,809,478	\$130,319	\$5,580,201	\$2,689,791	\$409,167
2019	\$8,942,796	\$158,687	\$5,624,482	\$2,708,258	\$451,369
2020	\$9,123,006	\$193,434	\$5,695,575	\$2,734,674	\$499,323

### PART V: RECOMMENDATIONS FOR FUTURE VALUATIONS

To effectively manage benefit costs, an employer must periodically examine the existing liability for retiree benefits as well as future annual expected premium costs. GASB 43/45 require biennial or triennial valuations. In addition, a valuation should be conducted whenever plan changes, changes in actuarial assumptions or other employer actions are likely to cause a material change in accrual costs and/or liabilities.

follow	ing are examples of actions that could trigger a new valuation.				
П	An employer should perform a valuation whenever the employer considers or puts in place an early retirement incentive program.				
П	An employer should perform a valuation whenever the employer adopts a retiree benefit plan for some or all employees.				
П	An employer should perform a valuation whenever the employer considers or implements changes to retiree benefit provisions or eligibility requirements.				
П	An employer should perform a valuation whenever the employer introduces or changes retiree contributions.				
We recommend San Mateo CCD take the following actions to ease future valuations.					
٦	We have used our training, experience and information available to us to establish the actuarial assumptions used in this valuation. We have no information to indicate that any of the assumptions do not reasonably reflect future plan experience. However, the District should review the actuarial assumptions in Appendix C carefully. If the District has any reason to believe that any of these assumptions do not reasonably represent the expected future experience of the retiree health plan, the District should engage in discussions or				

perform analyses to determine the best estimate of the assumption in question.

# PART VI: APPENDICES

# APPENDIX A: MATERIALS USED FOR THIS STUDY

We relied on the following materials to complete this study.

П	We used paper reports and digital files containing employee demographic data from the
	District personnel records.

### APPENDIX B: EFFECT OF ASSUMPTIONS USED IN CALCULATIONS

While we believe the estimates in this study are reasonable overall, it was necessary for us to use assumptions which inevitably introduce errors. We believe that the errors caused by our assumptions will not materially affect study results. If the District wants more refined estimates for decision-making, we recommend additional investigation. Following is a brief summary of the impact of some of the more critical assumptions.

- 1. Where actuarial assumptions differ from expected experience, our estimates could be overstated or understated. One of the most critical assumptions is the medical trend rate. The District may want to commission further study to assess the sensitivity of liability estimates to our medical trend assumptions. For example, it may be helpful to know how liabilities would be affected by using a trend factor 1% higher than what was used in this study. There is an additional fee required to calculate the impact of alternative trend assumptions.
- We used an "entry age normal" actuarial cost method to estimate the actuarial accrued liability and normal cost. GASB will allow this as one of several permissible methods under its upcoming accounting standard. Using a different cost method could result in a somewhat different recognition pattern of costs and liabilities.

### APPENDIX C: ACTUARIAL ASSUMPTIONS AND METHODS

Following is a summary of actuarial assumptions and methods used in this study. The District should carefully review these assumptions and methods to make sure they reflect the District's assessment of its underlying experience. It is important for San Mateo CCD to understand that the appropriateness of all selected actuarial assumptions and methods are San Mateo CCD's responsibility. Unless otherwise disclosed in this report, TCS believes that all methods and assumptions are within a reasonable range based on the provisions of GASB 43 and 45, applicable actuarial standards of practice, San Mateo CCD's actual historical experience, and TCS's judgement based on experience and training.

### ACTUARIAL METHODS AND ASSUMPTIONS:

<u>ACTUARIAL COST METHOD:</u> Entry age normal. The allocation of OPEB cost is based on years of service. We used the level percentage of payroll method to allocate OPEB cost over years of service.

Entry age is based on the age at hire for eligible employees. The attribution period is determined as the difference between the expected retirement age and the age at hire. The present value of future benefits and present value of future normal costs are determined on an employee by employee basis and then aggregated.

To the extent that different benefit formulas apply to different employees of the same class, the normal cost is based on the benefit plan applicable to the most recently hired employees (including future hires if a new benefit formula has been agreed to and communicated to employees).

<u>AMORTIZATION METHODS:</u> We used the level percentage of payroll method to allocate amortization cost by year. We used a closed 30 year amortization period for the initial UAAL. We used an open 30 year amortization period for any residual UAAL.

<u>SUBSTANTIVE PLAN:</u> As required under GASB 43 and 45, we based the valuation on the substantive plan. The formulation of the substantive plan was based on a review of written plan documents as well as historical information provided by San Mateo CCD regarding practices with respect to employer and employee contributions and other relevant factors.

### ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 27 (ASOP 27). Among other things, ASOP 27 provides that economic assumptions should reflect a consistent underlying rate of general inflation. For that reason, we show our assumed long-term inflation rate below.

**INFLATION**: We assumed 3% per year.

<u>INVESTMENT RETURN / DISCOUNT RATE</u>: We assumed 5% per year. This is based on assumed longterm return on plan assets assuming 100% funding. We used the "Building Block Method" as described in ASOP 27 Paragraph 3.6.2.

TREND:

We assumed 4% per year. Our long-term trend assumption is based on the conclusion that, while medical trend will continue to be cyclical, the average increase over time cannot continue to outstrip general inflation by a wide margin. Trend increases in excess of general inflation result in dramatic increases in unemployment, the number of uninsured and the number of underinsured. These effects are nearing a tipping point which will inevitably result in fundamental changes in health care finance and/or delivery which will bring increases in health care costs more closely in line with general inflation. We do not believe it is reasonable to project historical trend vs. inflation differences several decades into the future.

<u>PAYROLL INCREASE</u>: We assumed 3% per year. This assumption applies only to the extent that either or both of the normal cost and/or UAAL amortization use the level percentage of payroll method. For purposes of applying the level percentage of payroll method, payroll increase must not assume any increases in staff or merit increases.

<u>ACTUARIAL ASSET VALUATION:</u> We used a 15 year smoothing formula with a 20% corridor around market value.

(1) Market value at 1/31/11:	\$16,167,118
(2) Accumulated contributions(disbursements) at 7.75%:	\$15,606,380
(3) Value in (2) + $1/15$ of (1) minus (2)	\$15,643,762
(4) Value in (3) adjusted to minimum or maximum*	\$15,643,762
(5) AVA at 6/30/10 adjusted to valuation date at 7.75%	\$15,643,762

<sup>\*</sup> Minimum is 80% of market value; maximum is 120% of market value

## **Total Compensation Systems, Inc.**

## NON-ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 35 (ASOP 35).

MORTALITY: CalSTRS mortality for faculty employees.

CalPERS mortality for Miscellaneous employees for other employees.

RETIREMENT RATES: CalSTRS retirement rates for faculty employees.

CalPERS retirement rates for the 2 %@ 55 pension formula for other employees.

## **VESTING RATES:**

	<u>Faculty</u>	<u>AFSCME</u>	<u>CSEA</u>	<u>Management</u>
Vesting Percentage	100%	100%	100%	100%
Vesting Period	Age + Service = 75			

## COSTS FOR RETIREE COVERAGE:

There was not sufficient information available to determine whether there is an implicit subsidy for retiree health costs. Based on ASOP 6, there can be justification for using "community-rated" premiums as the basis for the valuation where the insurer is committed to continuing rating practices. This is especially true where sufficient information is not available to determine the magnitude of the subsidy. However, San Mateo CCD should recognize that costs and liabilities in this report could change significantly if either the current insurer changes rating practices or if San Mateo CCD changes insurers.

First Year costs are as shown below. Subsequent years' costs are based on first year costs adjusted for trend and limited by any District contribution caps.

Current Retirees: based on actual costs	AFSCME	<b>Faculty</b>	<u>CSEA</u>	Management
Current Plan:				
Future Retirees Pre-65	\$5,400	\$5,400	\$5,400	\$5,400
Future Retirees Post-65	\$4,714	\$4,714	\$4,714	\$4,714

PARTICIPATION RATES: 100%

TURNOVER: CalSTRS turnover for faculty employees.

CalPERS turnover for Miscellaneous employees for other employees.

SPOUSE PREVALENCE: To the extent not provided and when needed to calculate benefit liabilities, 80% of retirees assumed to be married at retirement. After retirement, the percentage married is adjusted to reflect mortality.

<u>SPOUSE A GES</u>: To the extent spouse dates of birth are not provided and when needed to calculate benefit liabilities, female spouse assumed to be three years younger than male.

## APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE

## **ELIGIBLE ACTIVE EMPLOYEES:**

<u>Age</u>	<b>Total</b>	<b>AFSCME</b>	<b>Faculty</b>	<b>CSEA</b>	<b>Management</b>
Under 25	4	1	0	3	0
25-29	19	1	1	14	3
30-34	58	8	11	28	11
35-39	66	5	20	30	11
40-44	78	5	29	33	11
45-49	122	11	48	35	28
50-54	122	19	39	49	15
55-59	149	9	58	50	32
60-64	102	3	52	24	23
65 and older	42	2	28	5	7
Total	762	64	286	271	141

## **ELIGIBLE RETIREES:**

<u>Age</u>	<u>Total</u>	<b>AFSCME</b>	<u>Faculty</u>	<b>CSEA</b>	<b>Management</b>
Under 50	0	0	0	0	0
50-54	2	0	0	2	0
55-59	29	0	6	22	1
60-64	68	0	30	36	2
65-69	137	0	84	52	1
70-74	139	0	92	45	2
75-79	132	0	94	37	1
80-84	118	0	78	38	2
85-89	133	0	71	60	2
90 and	8	0	3	4	1
older					
Total	766	0	458	296	12

## APPENDIX E: CALCULATION OF GASB 43/45 ACCOUNTING ENTRIES

This report is to be used to calculate accounting entries rather than to provide the dollar amount of accounting entries. How the report is to be used to calculate accounting entries depends on several factors. Among them are:

- 1) The amount of prior accounting entries;
- Whether individual components of the ARC are calculated as a level dollar amount or as a level percentage of payroll;
- Whether the employer using a level percentage of payroll method elects to use for this purpose projected payroll, budgeted payroll or actual payroll;
- 4) Whether the employer chooses to adjust the numbers in the report to reflect the difference between the valuation date and the first fiscal year for which the numbers will be used.

To the extent the level percentage of payroll method is used, the employer should adjust the numbers in this report as appropriate to reflect the change in OPEB covered payroll. It should be noted that OPEB covered payroll should only reflect types of pay generating pension credits for plan participants. Please note that plan participants do not necessarily include all active employees eligible for health benefits for several reasons. Following are examples.

- The number of hours worked or other eligibility criteria may differ for OPEB compared to active health benefits:
- There may be active employees over the maximum age OPEB are paid through. For example, if an OPEB plan pays benefits only to Medicare age, any active employees currently over Medicare age are not plan participants;
- Employees hired at an age where they will exceed the maximum age for benefits when the service requirement is met are also not plan participants.

Finally, GASB 43 and 45 require reporting covered payroll in RSI schedules regardless of whether any ARC component is based on the level percentage of payroll method. This report does not provide, nor should the actuary be relied on to report covered payroll.

GASB 45 Paragraph 26 specifies that the items presented as RSI "should be calculated in accordance with the parameters." The RSI items refer to Paragraph 25.c which includes annual covered payroll. Footnote 3 provides that when the ARC is based on covered payroll, the payroll measure may be the projected payroll, budgeted payroll or actual payroll. Footnote 3 further provides that comparisons between the ARC and contributions should be based on the same measure of covered payroll.

At the time the valuation is being done, the actuary may not know which payroll method will be used for reporting purposes. The actuary may not even know for which period the valuation will be used to determine the ARC. Furthermore, the actuary doesn't know if the client will make adjustments to the ARC in order to use it for the first year of the biennial or triennial period. (GASB 45 is silent on this.) Even if the actuary were to know all of these things, it would be a rare situation that would result in me knowing the appropriate covered payroll

## **Total Compensation Systems, Inc.**

number to report. For example, if the employer uses actual payroll, that number would not be known at the time the valuation is done.

As a result, we believe the proper approach is to report the ARC components as a dollar amount. It is the client's responsibility to turn this number into a percentage of payroll factor by using the dollar amount of the ARC (adjusted, if desired) as a numerator and then calculating the appropriate amount of the denominator based on the payroll determination method elected by the client for the appropriate fiscal year.

If we have been provided with payroll information, we are happy to use that information to help the employer develop an estimate of covered payroll for reporting purposes. However, the validity of the covered payroll remains the employer's responsibility even if TCS assists the employer in calculating it.

### APPENDIX F: GLOSSARY OF RETIREE HEALTH VALUATION TERMS

Note: The following definitions are intended to help a non-actuary understand concepts related to retiree health

valuations. Therefore, the definitions may not be actuarially accurate.

Actuarial Accrued Liability: The amount of the actuarial present value of total projected benefits attributable to

employees' past service based on the actuarial cost method used.

<u>Actuarial Cost Method:</u> A mathematical model for allocating OPEB costs by year of service.

Actuarial Present Value of Total

<u>Projected Benefits</u>: The projected amount of all OPEB benefits to be paid to current and future retirees

discounted back to the valuation date.

Actuarial Value of Assets: Market-related value of assets which may include an unbiased formula for

smoothing cyclical fluctuations in asset values.

Annual OPEB Cost: This is the amount employers must recognize as an expense each year. The annual

OPEB expense is equal to the Annual Required Contribution plus interest on the Net OPEB obligation minus an adjustment to reflect the amortization of the net

OPEB obligation.

Annual Required Contribution: The sum of the normal cost and an amount to amortize the unfunded actuarial

accrued liability. This is the basis of the annual OPEB cost and net OPEB

obligation.

<u>Closed Amortization Period:</u> An amortization approach where the original ending date for the amortization

period remains the same. This would be similar to a conventional, 30-year

mortgage, for example.

<u>Discount Rate:</u> Assumed investment return net of all investment expenses. Generally, a higher

assumed interest rate leads to lower normal costs and actuarial accrued liability.

Implicit Rate Subsidy: The estimated amount by which retiree rates are understated in situations where, for

rating purposes, retirees are combined with active employees.

Mortality Rate: Assumed proportion of people who die each year. Mortality rates always vary by

age and often by sex. A mortality table should always be selected that is based on a

similar "population" to the one being studied.

Net OPEB Obligation: The accumulated difference between the annual OPEB cost and amounts

contributed to an irrevocable trust exclusively providing retiree OPEB benefits and

protected from creditors.

Normal Cost: The dollar value of the "earned" portion of retiree health benefits if retiree health

benefits are to be fully accrued at retirement.

## **Total Compensation Systems, Inc.**

OPEB Benefits: Other PostEmployment Benefits. Generally medical, dental, prescription drug, life,

long-term care or other postemployment benefits that are not pension benefits.

Open Amortization Period: Under an open amortization period, the remaining unamortized balance is subject to

a new amortization schedule each valuation. This would be similar, for example, to a homeowner refinancing a mortgage with a new 30-year conventional mortgage

every two or three years.

Participation Rate: The proportion of retirees who elect to receive retiree benefits. A lower

participation rate results in lower normal cost and actuarial accrued liability. The

participation rate often is related to retiree contributions.

Retirement Rate: The proportion of active employees who retire each year. Retirement rates are

usually based on age and/or length of service. (Retirement rates can be used in conjunction with vesting rates to reflect both age and length of service). The more likely employees are to retire early, the higher normal costs and actuarial accrued

liability will be.

<u>Transition Obligation:</u> The amount of the unfunded actuarial accrued liability at the time actuarial accrual

begins in accordance with an applicable accounting standard.

Trend Rate: The rate at which the cost of retiree benefits is expected to increase over time. The

trend rate usually varies by type of benefit (e.g. medical, dental, vision, etc.) and may vary over time. A higher trend rate results in higher normal costs and actuarial

accrued liability.

<u>Turnover Rate:</u> The rate at which employees cease employment due to reasons other than death,

disability or retirement. Turnover rates usually vary based on length of service and may vary by other factors. Higher turnover rates reduce normal costs and actuarial

accrued liability.

Unfunded Actuarial

Accrued Liability: This is the excess of the actuarial accrued liability over assets irrevocably

committed to provide retiree health benefits.

Valuation Date: The date as of which the OPEB obligation is determined. Under GASB 43 and 45,

the valuation date does not have to coincide with the statement date.

<u>Vesting Rate:</u> The proportion of retiree benefits earned, based on length of service and,

sometimes, age. (Vesting rates are often set in conjunction with retirement rates.)

More rapid vesting increases normal costs and actuarial accrued liability.

	<u>_</u>			
			11	
			111111111111111111111111111111111111111	1111111
1				
1				
		minan miti l	iinn	
				П
100010010001110		11		П
			1	
				пт
		11	11	
		1.1	П	
			11 11	
1	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-		
				1
	1	-		1



1.1.111111111111 

[].[][[][][][][][].[] 

1.1																																																				
Ū																																																				
13	ĺ	1	1		1			111		П																																										
Ы																																																				
11	1	11		1	I																																															
	I	11	i			Ī					H		III			11																																				
П	ì	i		F		I		11		1111		T					H			11	Н			Ш																												
	ľ	1							11	1																																										
Ü	Ī	Ï		i	Ш	H	Ш		Ш	Ī	H	11																																								
11																																																				
					1	11	Ü	II.	H	1		1	1		II		1		11	П	î	11		Ü	I	II			1	1	1111			ľ			11	Ш				11	11			1111	1111		11	П		
11																																																				
		i			H																																															
H																																																				
			11					1	11	11			11	П	П		L			11		1		Ï		111			1		LI	H	1		11.1		ii		Ш		H	1.11	Ш	П		ı	11	11	П	Ш	H	i
11			1	H			11	H			П	11	H	1		Ш		П	H		П			1	П		T	H	П		11	Н		Ш		H	11	Ш	I	11	П	11			П	П	П					
11	ĺ	Í		1		1	Ш	II	11	11	III	III		H					III	111	11	11		1	Ш	111		1.1	I							Ш		11	Ш					111	Ш							
		i	i	111		1			II			II				Ш	II		11			111	1	Ш	I					1	Ш	11	Ш	1		11	Ш	1 1	П	1 11	Ш		111	H	1111		Ш	H	III	11		1
																																											11									
Ū	1	I		11	11						11			11	1			İ	11	11	11																															
Ü																																																				
		I	Ш	1		1	III	Ш	H		П	Ш		H	Ħ		II		Ì		111	111	II	11	T		Ш	Ш	П	H	H	I			11		П	Ш		П	11		П			П	1111	H	Ш		П	
	1					1		H	11	1		11	1111		I	11	111	1	11		I	111																														
11	I	Ī	I	11	I	1	III	11	i	111	П	m		H		m	1				Ш	I	I	H	Ü		11	Ш			П	ĺ		11					Ш	П		111					III		H	Ш	H	
i	1	I	11			111	111	111	11	1			1			11	11		111		111	i		III	111	III	11	1			11	1	111	1	11	11	П	П	1	111	11	111										
11																																																				
		ı	1																																																	
-	(		)		1																																															
1	2	3	2	X	) N		,		_																																											
	١.		1		X,	4	6	-																																												
			H			ŀ	Ш																																													
11	l	1	I	li	11			I	H																																											
11	11	1	1	11			11	11	111	111	11	H	11																																							
	İ		11		11	111	ľ	11	F	11	11	F																																								
Ü		I	III	1	II	1	Ī																																													



## Ongoing OPEB Questionnaire & Due Diligence

PΙ	BLIC ENTITY EMPLOYER NAME: _San Mateo Community College District			_	
PL	AN YEARJuly 1, 2010 - June 30, 2011				
pre	help us understand & determine ongoing Other Post Employme ovided for retirees of the Public Entity Employer, please complete estionnaire.	ent Benefit e the follov	s (OPE ving	E <b>B</b> )	
1	To determine OPEB ongoing liabilities, has a current Actuarial Valuation Report been produced & updated per GASB mandates? Date of most current Actuarial Valuation Report 2/1/2011	Yes	; <u> </u>	No	
2	Who is the Actuary that completed the Valuation Report?  Total Compensation Systems				
3	Have there been any changes/modifications to Bargaining Agreements recently (within this past year) that affect Retirees OPEB?  — Certificated	☐ Yes		No	
	Date of most current Bargaining Agreement 7/1/2009	Yes		No	
	Classified Date of most current Bargaining Agreement 7/1/2010  Management	Yes		No	
	Date of most current Bargaining Agreement	Yes		No	
	Other: AFSCME  Date of most current Bargaining Agreement 7/1/2010	Yes		No	
	Have there been modifications of program provisions or changes in insurance carriers of the Health Benefits Program provided to retirees of the Employer in the past year?	Yes		No	
5	Are Spouses, Domestic Partners or Dependents covered under the Health Benefits provided to retirees of the Employer?	■ Yes		No	
5	Have there been modifications of program provisions or changes in insurance carriers of the Dental Benefits provided to retirees of the Employer?	Yes		No	
	1	Keen	an		

## Ongoing OPEB Questionnaire & Due Diligence

7	Are Spouses, Domestic Partners or Dependents covered under Dental Benefits provided to retirees of the Employer?		Yes	No
8	Have there been any modifications of any separate Prescription Drug Plan provided for retirees of the Employer (including benefits for dependents)?		Yes	No
9	Are there any changes to Retiree Benefits provided for disabled employees within the past year?		Yes	No
10	Are Long Term Care Benefits provided for retirees of the Employer?		Yes	No
11	Are there any changes to other insurance coverage provided for retirees of the Employer, including their dependents? (i.e., Life Insurance, change of carriers, changes regarding how much of the premium is paid by the Employer versus the Retiree, etc.)		Yes	No
	If the answer to No.11 is Yes, please list additional insurance coverage and any changes here or on a separate page.			
12	Within the past year, have there been changes to any other arrangements or commitments for the Employer to pay for the cost of any post retirement benefits (other than pension benefits). This would be applicable to any employee or employee contract or bargaining agreement that may be in place between the employee(s), the bargaining unit and the Employer.		Yes	No
	If the answer to No.12 is Yes, please list details below or on a separate	page	į	

2

Keenan

# Ongoing OPEB Questionnaire & Due Diligence

13	Within the past year, have there been changes to any other  arrangements or commitments for the Employer to pay for the costs, of any dependent of a retired Employee of the Employer?		No
	If the answer to No. 13 is Yes, please list additional costs, benefits, etc. here or on a separate page		
14	There are NO updates required at this time.		
QI CC	DESTIONNAIRE Ken Three his  Keenan Service Rep - (Printed name and Signature)		-
EN	District/ Employer Contact - (Printed name and Sign	 nature)	
DA	ATE: 8-22-204		

PRESENTED TO:		DATE:	02/22/2012
Retirement Board	d of Authority		
SUBJECT:		ITEM #:	2011/2012-024
Future Transfer	of Assets into the Trust	Enclosure:	No
		Action Item	No
Prepared by:	Keenan Financial Services	_	
Requested by:	Retirement Board of Authority		

## BACKGROUND:

The Trust was created for the exclusive purpose of prefunding unfunded retiree OPEB liabilities.

## STATUS:

The Retirement Board of Authority will discuss the percentage (%) of payroll proposed to be transferred in the District Reserves.

## RECOMMENDATION:

The Retirement Board of Authority shall hear and receive the information reviewed.

PRESENTED TO:		DATE:	02/22/2012
Retirement Board	of Authority		
SUBJECT:		ITEM #:	2011/2012-025
Education		Enclosure:	Yes
		Action Item	No
Prepared by:	Morgan Stanley Smith Barney Retirement Board of Authority		

## **BACKGROUND:**

The investment of public funds carries with it certain fiduciary duties and therefore also potential liability for fiduciaries. The Futuris Program has been designed to help the Retirement Board of Authority to mitigate its potential fiduciary liability.

## **STATUS:**

Cary Allison of Morgan Stanley Smith Barney (MSSB) will review studies by Morgan Stanley Private Wealth Management Asset Allocation Group (David M. Darst) relative to Behavioral Finance.

## RECOMMENDATION:

The Retirement Board of Authority shall hear and receive the information presented by Cary Allison of Morgan Stanley Smith Barney.



## **Equities**

14 December 2011 | 14 pages

## **Equity Strategy**

## Special Report - The Raging Bull Thesis

- □ Six major developments argue for a new secular bull market beginning within the next 12-18 months. The investment community is distracted by having lost 50%+ in stocks twice since 2000, the plunge in home prices, peak-like profit margins, employment challenges and a potential European sovereign debt/banking crisis, but there are changes that may provide catalysts for a major shift in equity price direction.
- □ A nascent US housing recovery could emerge after excess homes get absorbed in the middle of 2012. There are indications that excess home supply is dwindling, and that could provide a floor in home prices, bank/mortgage losses, construction industry job pressures, consumer confidence and even GDP drags. After six years, the housing bubble deflation may end as it often takes that long to absorb such excesses.
- □ An American manufacturing renaissance appears to be taking place. Reports of companies bringing back manufacturing to the US have emerged due to higher land costs and wages in China, and there appears to be a much more competitive dynamic in America currently. While many have perceived the US manufacturing base as being in permanent decline, there are indications of a turn taking place.
- ☐ Fiscal responsibility could address rising risk premiums and allow for multiple expansion. By 2013-14, the US will begin to experience a sharp increase in mandatory fiscal spending, based on current budget assumptions, and we suspect that a response will be hammered out by the country's political leadership to address this problem. Indeed, proposals have come forward such as the Bowles-Simpson commission's report that many see as a promising start. Interestingly, Americans seem more willing to accept these options as they show their concern via "wrong track" polls.
- ☐ The demographics of the baby boom "echo" should support a new cadre of investors. Many wonder about the propensity for aging boomers to prefer the alleged safety of fixed income instruments, but the group of 35-39 year olds that is larger than its parental cohort will be entering their savings years beginning in late 2012. This new group is unencumbered by the memory of suffering severe portfolio losses and thus may be new buyers of equities, especially if bond yields move up in 2013.
- □ The US is moving towards energy self sufficiency via the development of shale oil and gas fields as well as NGL substitution. While US oil production peaked in the mid-1980s, horizontal drilling and shale hydrocarbon extraction technologies are generating a renewed pickup in drilling activity that combined with NGL development and imports from Canada and Mexico could make the US almost energy independent.
- □ Technological innovation and penetration of smart mobile devices is likely to compel major new investment. Every 15 years or so, the US undergoes substantial technological change that can act as an economic propellant. The sheer magnitude of mobility growth brings computing, the internet, purchasing and entertainment in one's palm and argues for significant investment in software, infrastructure, bandwidth and more efficient chips, batteries and production techniques. Fortunately, the US remains the global IT leader.

as only a single factor in making their investment decision.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Off Investment Research & Analysis is a division of Citigroup Global Markets Inc. (the "Firmt"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firmmay have a conflict of interest that could affect the objectivity of this report. Investors should consider this report

Citigroup Global Markets

□ Equities

Tobias M Levkovich

Lorraine M Schmitt

Andrew T Ward

## The Potential End of the Trading Market Thesis

In December 2001, we penned our first Trading Places report, highlighting the probability that the bursting of the tech bubble would generate a trading environment similar to the 1930s and 1970s in the US and the 1990s in Japan. Essentially we argued that after major bubbles deflate, it can take more than a decade for markets to find a new base from which to grow but sharp trading rallies and pullbacks can provide moneymaking opportunities for adroit investors. Since late 2001, we wrote 10 more such Trading Places reports through 2011 reminding investors of the notion that one had to give up on the buy and hold strategies that had dominated the mindset of the 1990s. Investment would have to rely on key metrics such as tracking investor sentiment, earnings expectations, valuation signals and the credit cost backdrop. And, while we think these drivers can persist and support equities in the near term, we may be closing in on the end of this trading market regime. Indeed, we see a number of major changes that appear to be coming to the fore and should support a new era of the secular bull market run. While we imagine that most investors are deeply skeptical of such an argument after years on the seeming roller coaster market, especially given recent volatility, we would remind them that they were equally unwilling to buy into our trading thesis a decade ago. One can debate the premise but it is far more worthwhile to consider the argument thoughtfully before discounting it; and in that context, we perceive at least six substantive developments that could alter the outlook dramatically.

Note that the six factors coming together over the next few years include energy independence, a local manufacturing renaissance, technology-based transformational change, demography, a housing sector bottom and fiscal reform. While each individually is important, the coalescence of these developments could prove to be very powerful for investors. It is relatively rare for just one concept to drive investors in a particular direction but it is often the combination of several catalysts that can act as the fuel for stock price trends. Thus, there is a good reason to be bullish about the coming several years in equities despite fears around high (and thereby perceived unsustainable) corporate profitability (see Figure 1) as well as justified European economic concerns. As we have stressed in the past. current stock prices assume a coming collapse in earnings by virtue of the present value of no earnings growth being well above the current S&P 500 level as we have witnessed in the past just before major stock price rallies (see Figure 2). Keep in mind that the dominant mindset during much of the 1970s and the very early 1980s was that the US had lost its "edge" and that tough economic circumstances could not be overcome. At the time, double-digit unemployment and double-digit inflation contributed to a national malaise while Japan was in its economic ascendancy not to mention a costly war in Vietnam that many saw as an American defeat. Investors perceived equities as doomed due to a focus on "hard" assets and Wall Street was under the cost pressures of "big bang" negotiated rather than fixed commission revenues. A lost decade in investing was also prevalent with few having the stomach for buying stocks.





Source: FactSet and ORA-US Equity Strategy Source: Haver Analytics and ORA-US Equity Strategy

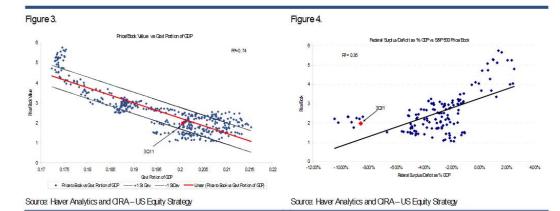
We suspect that investors will attempt to discredit the various insights noted below for a new bull run and we fully appreciate their disbelief. Moreover, we think that it may take another year for investors to begin to accept the possibility of these issues, especially given a seminal election next year that will help determine the manner in which fiscal challenges get resolved. With the European experience acting as a prelude for any developed economy that does not address fiscal spending programs that are meaningfully in excess of revenues, America may have to act relatively soon. To some extent, investors may need to know the likely outcome of the 2012 US presidential elections before they are willing to commit investment funds in a big way. Indeed, one might construct two very different portfolios if President Obama were to win re-election versus if his Republican challenger were to be victorious. For example, a portfolio manager might buy solar or wind power stocks if President Obama wins but might buy defense or energy names if he did not. Thus, even if the investment community buys into our new bull driver confluence thesis, they may not be ready to allocate new monies just yet. In addition, any bottoming in housing activity and ultimately home prices will take some time to permeate a very damaged homeowner's psyche.

We expect many doubters to emerge and suggest that the view we will outline for the next decade is Pollyanna-like but we should emphasize that our more cautious Trading Places thesis was equally dismissed a decade ago as some saw it as a Cassandra warning. Thus, we would hope that we have earned some degree of credibility and our willingness to go from being bearish in the spring of 2008 to bullish in late 2008/early 2009 shows flexibility rather than a rigid predisposition towards or against equities. Accordingly, we find it compelling and exciting to lay out a much more positive view for stock prices in the coming 10 years.

## The Fiscal Problem and Its Likely Resolution

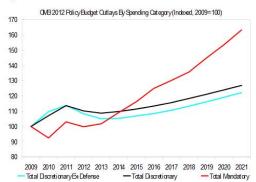
We continue to think that investors are unwilling to pay up for equities while the continuation of budget deficits and growth of national debt erodes the foundation of economic progress. Figure 3 is somewhat controversial but suggests that larger government hurts overall market valuation while Figure 4 shows that large budget deficits are often associated with lower valuation as well. But, we heavily rely on this writer's past experience covering cyclical industrial stocks for 15 years, which often traded at low P/E multiples just as earnings peaked and investors understood that the future EPS trajectory was not going to be good. Some mistakenly saw these allegedly "cheap" stocks as attractively valued but we argued that the overwhelming number of investors correctly understood that the shares were simply

reflecting very questionable ongoing prospects. Every fund manager was able to calculate the same valuation metrics on forward estimates but the belief system in those forecasts was appropriately poor. In essence, the aggregate view of investors is something to learn from rather than to be mocked by supposedly smarter people. The crucial issue is not intellect, it is information — and the masses generally have more information than a select few who just do not have the capacity to gather all relevant data.



More critically, Figure 5 illustrates that 2014 will be a critical year as federal mandatory spending is set to surge according to the Obama administration budget forecasts, and we suspect that the bond market will not be altogether tolerant at that prospect. Thus, 2013 is the year in which progress will have to be made by the next administration or the bond market may force an outcome the following year in the manner being seen by Italy. If not, growth as a percent of GDP will continue to climb and it seems likely that foreigners who buy nearly half of US Treasuries may require higher interest rates to compensate them for the higher risk they would be undertaking as debt climbs. In contrast, Japan has been self-funding and thus has been able to fund itself cheaply especially given local deflation. Note that the US is not projected to face deflation based on the TIPs breakeven rate (see Figure 6). Nonetheless, some progress will have to be made akin to the efforts seen by both Presidents Reagan and Clinton with bipartisan support. While a sense of bipartisanship seems almost impossible to imagine in DC nowadays, we would submit that the Bowles-Simpson plan and the Rivlin-Domenici proposal both have bipartisan support. Many Democrats understand the limits of the entitlement programs and many Republicans are willing to address taxes under a tax reform bill. Thus, we suspect that compromises will be found, which could unleash new investment that is looking for leadership out of Washington before committing new funds.





Source: Haver Analytics and CIRA-US Equity Strategy

## Figure 6.



Source: Bloomberg and CIRA-US Equity Strategy

## The Impressive Coming US Energy Story

For almost four decades, since the 1973-74 oil embargo, America has been struggling with energy supplies and the need to keep its economy powered by hydrocarbons. Various plans have failed to solve the problem, from CAFE standards to biofuels to electric cars and more. Yet, America stands on the verge of a major change that puts it on a course to near self-sufficiency, according to a past President of OPEC as well as Citi's head of commodities research, Ed Morse. The Gulf of Mexico is expected to see production climb from 1.55 million barrels per day (mbd) of oil to 4.0 mbd by the end of the decade, while shale (or more correctly "tight") oil could add another 2.0 mbd, while a shift to natural gas for heavy trucks could save the country from using another 0.5 mbd. In addition, auto efficiencies and a few other factors also may help. Overall, US imports of oil should drop from 9.0 mbd to 2.0 mbd, which easily can be purchased from Canada and Mexico. Keep in mind that 7.0 mbd would equal \$700 million daily and more than \$250 billion annually. The implications are simply stunning on America's current account figures, trade balances and even potentially the positioning (and cost) of US military forces around the world. The increase in production of shale gas could also add millions of new jobs.

### Figure 7.

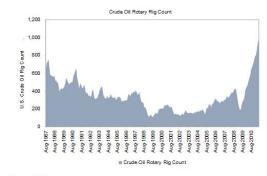
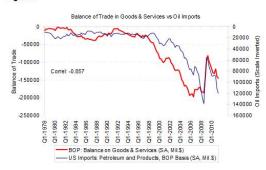


Figure 8.



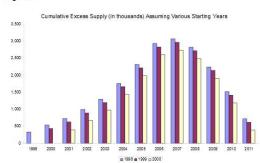
Source: BA Source: Haver Analytics and CIRA-US Equity Strategy

We suspect that most readers perceive this as more of a dream than a reality but the data is quite persuasive and the investment community could be very much surprised to the upside. Note that other developing regions might become far more dependent on foreign oil in a way that gives America impressive economic advantages as well.

## A Possible Turn in the Housing Sector

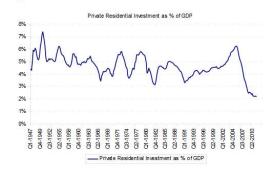
A few months ago, we highlighted work done by Citi's homebuilding analyst, Josh Levin, showing that excess US homes were being worked off (see Figure 9) and that while foreclosures would continue, the terrible overhang that has decimated home prices (see Figure 10), could be hitting a bottom. Moreover, the massive depressant on the American family's zeitgeist might finally wane. Keep in mind, that a bottom in housing has many impacts. The GDP drag could be reversed (see Figure 11) and employment could get a boost given nearly 2 million unemployed construction workers. Note that housing starts are at depression-like levels (see Figure 12).

Figure 9.



Source: Haver Analytics and CIRA-US Equity Strategy

Figure 11.



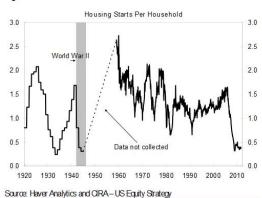
Source: Haver Analytics and GRA-US Equity Strategy

Figure 10.



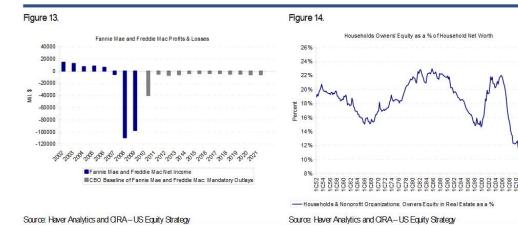
Source: Haver Analytics and CIRA-US Equity Strategy

Figure 12.



There are other benefits such as the banking industry no longer having to worry about an endless decline in the value of outstanding mortgages, which could recue

ongoing credit losses, and Fannie Mae as well as Freddie Mac may stop hemorrhaging money (see Figure 13). Note that unemployment rates have been stubbornly high partially due to the lack of mobility from areas that don't have jobs to those that do. As a reminder, home equity accounts for less than 15% of household net worth (see Figure 14) and thus most likely would not massively shift consumer spending, but any improvement has widespread benefits including related industries such as construction materials, home improvement retailers, etc. It seems almost impossible to believe that a positive development in housing would not be welcomed by the investment community, in our opinion.



## A Manufacturing Renaissance

In the last few months, we have seen companies such as Ford Motor and Emerson Electric bring back manufacturing to the US while Intel is building three new facilities in America and Caterpillar is looking to hire 1,200 workers for a new excavator plant. Intriguingly, both the Boston Consulting Group and AllixPartners have recently released reports discussing the new competitiveness of American manufacturing bases given 15%-20% wage increases in China and volatile transportation costs. Tragic natural disasters in Japan and Thailand also have made companies want to have more domestic sourcing options. We have even heard that building a new plant in Tennessee is cheaper than doing so in China given property price increases in Asia.

Admittedly, there are cheaper sources than the US such as Mexico, Indonesia and Vietnam, but the infrastructure in those countries may not support additional facilities there. Interestingly, BCG claims that by 2015, low labor content manufacturing cost advantages will be in the single digits for China over many low costs states in the US such as South Carolina before considering transport costs. The BCG study goes on to highlight that US manufacturing output is roughly 2.5x greater than it was 40 years ago with 33% fewer workers – this says more about American efficiency than any collapse in US manufacturing capabilities. Companies such as Coleman Company and Peerless Industries are cited as shifting production from China to the US, which may surprise many US investors.

BCG notes that the "labor content ranges from only about 7 percent for products like video cameras to about 25 percent for a machined auto part. When transportation, duties, and other costs are included, not to mention the expected continued

appreciation of China's currency, companies may find that any cost savings to be gained from sourcing in China may not be worth the time and myriad risks and headaches associated with operating a supply chain extending halfway around the world." In addition, rising electricity rates and yuan appreciation are eroding Chinese competitiveness, more than offsetting productivity gains. Moreover, China's workforce dwarfs all of Southeast Asia's combined, which limits the ability to just move manufacturing to Taiwan, for instance.

AlixPartners studied manufacturing costs and made some assumptions about wage increases, transportation costs and yuan appreciation and came to a similar view as BCG, but we would contend that they did not include land prices, electricity rates and challenges in managing supply chains halfway around the world. Nonetheless, the great challenge to America's manufacturing base appears to be ending. It is important to realize that China's manufacturing will still grow but more to serve its own developing needs. Thus, the studies do not argue for any collapse in China but rather suggest a resurgence of US-based manufacturing with all of its benefits.

#### Demographics

Many market observers have focused on the aging of America and that older Americans will rush to buy fixed income instruments so as to reduce their risk profiles. However, given the relative benefit of dividends versus bond yields (see Figure 15), we suspect that high quality dividend yielders will attract those investors' attention and many fund families have noted that there has been strong interest in new products that provide dividend income to yield starved investors. However, the most fascinating development is the size of the baby boom echo and specifically, the 35-39 year old age group that will be growing meaningfully in the next few years and seems to have an impact on the direction of stock prices (see Figure 16).



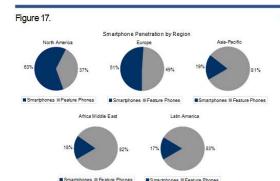
The age group cited is the cohort of people who have married, had a child and bought a home and is now thinking about their children's educations and their own retirement needs. Thus, they need to consider investing and they are not encumbered by the substantive equity market losses experienced since 2000 that many of us have endured. They have not suffered a lost decade in stocks and thus do not harbor any ill will to the asset class. Periods like the 1930s and 1970s, which were also awful times for stock prices were followed by much better market opportunity and thus one should be able to sense a repeat performance if the aforementioned factors have the impact that seem probable.

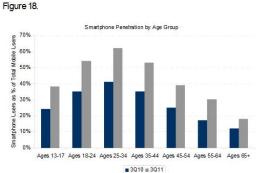
## Technological Innovation

Growth in technological mobility should have a very dramatic effect on economic development. The PC had a staggering impact in the mid-1980s as did the Internet in the late 1990s and the mid-2010s should be driven by mobility as smart devices penetrate the market even more. One can easily perceive the smart phone becoming one's wallet as well as communication device and that requires massive new investment on infrastructure ranging from better security software, faster chips, longer life batteries and more broadband spectrum especially in the wireless world. America still has a dominant position in the technology industry and has been the leader in smart device penetration.

Figure 17 shows that developed economies have better than 50% market penetration of smart phones already while global penetration is only 27% and growing fast. The network effect of apps has also been overwhelming with many wanting to access the various features and options they perceive to need. Once they have these devices, individuals and businesses open up a series of new requirements that cause massive new investment. As we highlighted in our Mobility Madness reports (dated February, 18, 2010), a new digital wave is coming and its adoption has only accelerated from earlier forecasts. As a result, we expect technology to be another source of US-driven growth.

Interestingly, Nielsen's third quarter survey of mobile users showed that 43 percent of all US mobile phone subscribers own a smart phone, but the majority of those under the age of 44 have one. Nielsen estimates that 62% of adults aged 25-34 report owning a smart phone. Among those 18-24 and 35-44, the penetration rate is better than 50%, and 40% of teenagers and those 45-54 reported owning a smart phone versus a more basic cell phone. As a side note, Android remains the most popular smart phone operating system in the United States, with 43% of the market, while Apple is the top device maker, with a 28% share.





Source: VisionMobile

## Conclusion

The outlook for the US is far better over the next couple of years, in our opinion, as the full confluence of the various trends highlighted above come together. We strongly doubt that investors will give the market much credit for this in the next 12 months, but the combination of a housing bottom and recovery, energy independence, a manufacturing revival, technological innovation, demography and fiscal adjustment can prove to be a very powerful series of forces. In our view,

Source: Nielsen

equity risk premiums are elevated due partially to the long-term US fiscal instability matched with the problems in Europe that ultimately compresses S&P 500 valuation.

Our sense is that investors would look at American markets from a very different vantage point as the likely trends converge. Factors such as energy self sufficiency and a manufacturing revival would dramatically change the perspective on the US where such concepts were not even being contemplated by the majority of the investment community. While we do not expect the markets to react to these drivers in the near term, their coalescence could generate a much more impressive rally over the next few years, and we suspect that such views are far from the current consensus.

In the short term, the Trading Places thesis remains intact, but one can begin to see the potential for an end to the "lost" decade in US equities over the next couple of years. Even the housing sector's bust will end, recognizing that the industry peaked in 2006 and next year will be the sixth year of decline. This report's function is to begin educating investors to a market regime change that we deem very probable.

## Appendix A-1

## **Analyst Certification**

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Otigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Oti Investment Research & Analysis Ratings Distribution

	12 Mo	nth Ratir	ng	Relative Rating			
Data current as of 9 Oct 2011	Buy	Hold	Sell	Buy	Hold	Sell	
Otti Investment Research & Analysis Global Fundamental Coverage	59%	34%	7%	10%	79%	10%	
% of companies in each rating category that are investment banking clients	45%	42%	37%	50%	43%	46%	

Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:

CIRA's stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned. Investment Ratings: CIRA's investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of CIRA management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation. Relative three-month ratings: CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. Risk ratings, which took into account both price volatility and fundamental criteria, were: Low(L), Medium (M), High (H), and Speculative (S), Investment Ratings of Buy, Hold and Sell were a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were:Buy (1) (expected total return of 10% or more for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 10%-10% for Low-Risk stocks, 10%-10% or more for High-Risk stocks, 10%-10% or more for 10% or more for High-Risk stocks, 10%-10% or more for 10% or more for High-Risk stocks, 10%-10% or more for 10%-10% or more for 10% or more for Low-Risk stocks, 10%-10%-10% for Low-Risk stocks, 10%-10%-10% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to

review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

## NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Ottigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below.

Citigroup Global Markets Inc

Tobias M Levkovich: Lorraine M Schmitt: Andrew T Ward

## OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Ott Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of therithose issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is n

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more votatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Ott Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports.

Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures. For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citigroupgeo.com/geopublic/Disclosures/index\_a.html.

This GRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of GRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sychey, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CV/M - Comissão de Valores Nobiliários, BACEN - Brazilian Central Bank, APINEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 110 andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"). CGM Canada has approved the Product. Citigroup Rice. 123 Front Street West, Suite 1100. Toronto, Ontario M5J 21/M. This product is available in Chille through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in France by Citigroup Global Markets

Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in Germany by Ottigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Ottibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Ottibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in India by Otigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Israel through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in Japan by Ottigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO website. If you have questions regarding GEO, please call (813) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Ottibank Bullding, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. http://dis.kofia.or.kr/fs/dis2/fundl/\textsqr/DISFundl/\textsqr/DISFundlystPop.isp?companyCd2=A03030&pageDiv=02. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Son Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the Philippines through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Ottibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10. Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independen research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Ottigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in the Republic of China through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Ottibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. OGNTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the

Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in Thailand through Otticorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Otigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs), CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual CIRA analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. CIRA simultaneously distributes product that is limited to CIBs only through email distribution. The level and types of services provided by CIRA analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints

© 2011 Ottigroup Global Markets Inc. Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSQI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSQI). Without prior written permission of MSQI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSO, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

PRESENTED TO:		DATE:	02/22/2012
Retirement Board	of Authority		
SUBJECT:		ITEM #:	2011/2012-026
Market Overview		Enclosure:	Yes
		Action Item	No
Prepared by:	Keenan Financial Services  Retirement Board of Authority		

## BACKGROUND:

As Board members of the Retirement Board of Authority you have a fiduciary responsibility as described in Government Code section 53215, et seq. In fulfilling your fiduciary responsibility, it is important to understand the impact of market conditions on the assets in the Investment Trust.

## **STATUS:**

Morgan Stanley Smith Barney (MSSB) will provide an overview of current capital market conditions.

## RECOMMENDATION:

The Retirement Board of Authority should receive the information.



# Asset Allocation and Portfolio Updates

Cary M. Allison, CIMA® Senior Vice President, Senior Investment Management Consultant December 31, 2011

MorganStanley SmithBarney

	Portfolio 4.5	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9
Target Returns	4.5%	5%	6%	7%	8%	9%
EQUITIES						
Large Cap Growth	0%	1%	3%	5%	5%	7%
Large Cap Value	0%	4%	7%	8%	11%	14%
Small/Mid Growth	0%	0%	1%	2%	4%	6%
Small/Mid Value	0%	<u>2%</u>	3%	5%	8%	10%
	0%	7%	14%	20%	28%	37%
International	0%	6%	13%	18%	25%	32%
REITs	0%	1%	3%	4%	5%	7%
Total Equities	0%	14%	30%	42%	58%	76%
FIXED INCOME						
Domestic Intermediate	80%	60%	48%	40%	27%	14%
International Intermediate	20%	26%	22%	18%	15%	10%
Total Fixed Income	100%	86%	70%	58%	42%	24%
Grand Total	100%	100%	100%	100%	100%	100%
PORTFOLIO STATISTICS						
Avg Annual Return	4.50%	5.03%	6.08%	7.06%	8.08%	9.05%
Standard Deviation (Risk)	3.98%	3.89%	5.45%	6.91%	9.09%	11.58%
Sharpe Ratio	0.5	0.65	0.66	0.66	0.61	0.57
Nominal Benchmarks						
Standard & Poor's 500	0%	10%	25%	40%	60%	75%
Barclay's Aggregate Bond	100%	90%	75%	60%	40%	25%

NOTE: The Futuris portfolios listed above are sample representations only and may be altered from time to time at the discretion of the Trustee.

Cary M. Allison, CIMA Senior Vice President, Senior Investment Management Consultant

PORTFOLIOS									
EQUITIES	Style	Ticker	Expenses	Portfolio 4.5 4.5% Target	Portfolio 5 5% Target	Portfolio 6	Portfolio 7	Portfolio 8 8% Target	Portfolio 9
Domestic Equities		*******	- April 100	no 70 am Ber	e,,,,,,,,	777 THI BIL	777341801		7,771160
Hartford Capital Appreciation	Large Growth	HCAYX	0.71%	0%	1%	3%	5%	5%	7%
Blackrock Equity Dividend	Large Value	MADVX	0.74%	0%	2%	3%	4%	5%	7%
John Hancock Classic V alue	Large Value	JCVIX	0.88%	0%	2%	4%	4%	6%	7%
	2.00		Subtotals	0%	5%	10%	13%	16%	21%
Hartford Midcap	Mid Growth	HMDYX	0.79%	0%	0%	1%	2%	4%	6%
Nuveen Tradewinds V alue Opportunities	Mid Blend	NVORX	1.17%	0%	1%	2%	3%	4%	5%
Royce Special Equity	Small Blend	RSEIX	1.05%	0%	1%	1%	2%	4%	5%
			Subtotals	0%	29%	496	796	12%	16%
Cohen & Steers Realty Shares	Real Estate	CSRIX	0.75%	0%	1%	2%	3%	3%	5%
Prudential Global Real Estate	Real Estate	PURZX	1.07%	0%	0%	1%	1%	2%	2%
			Subtotals	0%	1%	3%	4%	5%	796
International/Global Equities									
Royce Global Value	Small Blend	RGVIX	1.63%	0%	2%	3%	5%	7%	10%
Brandes International Equity	Large Value	BIIEX	1.13%	0%	1%	3%	4%	5%	6%
Nuveen Tradewinds Global All-Cap	Multi Value	NWGRX	1.08%	0%	1%	2%	3%	4%	5%
Thomburg International Value	Large Blend	TGVIX	0.89%	0%	1%	3%	3%	5%	6%
Thomburg Investment Income Builder	World Allocation	TIBIX	0.89%	0%	1%	2%	3%	4%	5%
			Subtotals	0%	6%	13%	18%	25%	32%
FIXED INCOME									
Domestic Fixed Income									
Metropolitan West Total Return Bond	Intermediate Term	MWTIX	0.45%	20%	15%	12%	10%	7%	3%
Delaware Diversified Income	Intermediate Term	DPFFX	0.72%	20%	15%	12%	10%	7%	4%
Prudential Total Return Bond Fund	Intermediate Term	PDBZX	0.72%	20%	15%	12%	10%	6%	3%
Western Asset Core Plus Bond	Intermediate Term	WACPX	0.46%	20%	15%	12%	10%	7%	4%
			Subtotals	80%	60%	48%	40%	27%	14%
International Fixed Income									
Brandywine Global Opportunities Bond	Global Bond	GOBSX	0.65%	5%	6%	5%	4%	3%	2%
Oppenheimer International Bond Inst	International Bond	OIBYX	0.54%	5%	7%	6%	5%	4%	3%
Tem pleton Global Bond Inst	Global Bond	TGBAX	0.67%	10%	13%	11%	9%	8%	5%
			Subtotals	20%	26%	22%	18%	15%	10%
SUMMARY									
Total Equities				0%	14%	30%	42%	58%	76%
Total Fixed Income				100%	86%	70%	58%	42%	24%
Grand Total				100%	100%	100%	100%	100%	100%
Blended Expense Ratio				0.59%	0.65%	0.71%	0.76%	0.83%	0.90%
STATISTICS									
Performance (as of 12/31/11)									
Otr				1.52%	2.35%	3.30%	3.98%	4.96%	6.08%
One Year				5.48%	3.35%	1.27%	-0.19%	-2.28%	-4.41%
Three Year				12.38%	12.74%	13.16%	13.70%	14.12%	14.76%
Five Year				7.90%	7.19%	5.98%	5.35%	4.31%	3.10%

NOTE: The Futuris portfolios listed above are sample representations only and may be altered from time to time at the discretion of the Trustee.

 $\label{eq:constraint} Prepared by Cary M. Allison, CIMA \\ Senior Vice President, Senior Investment Management Consultant$ 



# **Q4** 2011

# Capital Markets Overview

## Introduction

П	In the fourth quarter, equities bounced back, despite concerns over the cumulative effects on the global economy of the European sovereign debt crisis and the legislative standstill in the U.S. Congress.
П	The Dow Jones Industrials were up 12.8% for the fourth quarter, and 8.4% for the 12-month period.
П	The NASDAQ Composite was up 7.9% for the quarter, but fell 1.8% for the 12-month period.
П	The S&P 500 rose 11.8% for the quarter, and rose 2.1% for the year.
П	All 10 sectors of the S&P 500 Stock Sectors rose in the fourth quarter. Energy fared the best, with an 18.2% uptick. Industrials and Materials rose 16.5% and 15.4%, respectively. Utilities and Telecommunication Services were the laggards, rising 8.3% and 7.9%, respectively.
П	Still, the possibility of a looming recession in Europe weighed on global growth expectations.
П	Both Morgan Stanley and Citi economists reduced global growth expectations for 2011 to 3.9% and 3.7%, respectively, and 3.5% and 3.0% for 2012.
П	U.S. economic growth is expected by both Morgan Stanley and Citi to be around 1.7% in 2011 and about 2.0% in 2012.
П	For the 12-month period, the Dow Jones-UBS Commodity index declined by 13.3%, the first annual drop since 2008. Given a growing belief that global growth is slowing, commodity prices declined in the fourth quarter.
П	As risk aversion took hold, mergers and acquisitions activity decreased in the fourth quarter. Global M&A volume for the quarter totaled \$464 billion, down 15% from the third quarter. For 2011, global deal total dollar volume fell to \$2.6 trillion, just below the 2010 total dollar volume figure.

Please refer to important information, disclosures and qualifications at the end of this material.

## The U.S. Economy

П	In its December 22 update, the Department of Commerce estimated that Gross Domestic Product grew at an annual rate of 1.8% in the third quarter of 2011, in comparison with 1.3% in the second quarter of 2011.
П	Both Morgan Stanley and Citi economists forecast that U.S. GDP will grow 1.7% in 2011, and about 2.0% in 2012.
П	For the quarter, the seasonally adjusted unemployment rate fell from 8.9% for October to 8.5% for December. Job gains in the quarter took place in mining, health care, manufacturing, retail trade, warehousing and transportation. The unemployment rate (8.5%) and the number of unemployed persons (13.1 million) continued to decline in December. Since August, the unemployment rate has dropped by 0.6%.
П	According to the most recent estimate from the Commerce Department, corporate profits rose 1.7% between the second quarter of 2011 and the third quarter of 2011, and rose 7.5% between the third quarter of 2010 and the third quarter of 2011.
П	Inflation remained low in the U.S. According to the Bureau of Labor Statistics, the seasonally adjusted Consumer Price Index fell 0.1% in October and was unchanged in November.
П	Both Morgan Stanley and Citi economists expect an inflation rate of 1.6% for 2011. Morgan Stanley expects a 2.3% inflation rate for 2012, while Citi is forecasting a 1.9% rate for 2012.
П	The Census Bureau reported that privately owned housing starts in November 2011 were at a seasonally adjusted annual rate of 685,000—9.3% above the revised October estimate, and 24.3% above November 2010 housing starts. Although uncertainties about the economy and ongoing declines in house prices have weighed down demand for new homes for much of 2011, current low mortgage rates appear to be supporting a recovery in the housing market.
П	The Census Bureau also reported that seasonally adjusted retail and food services sales increased 0.2% between October and November, and increased 6.7% between November 2010 and November 2011.
П	In December, the Institute for Supply Management's manufacturing-sector index ("PMI") was 53.9, up 1.2 from November, and up from October's 50.8. PMI has been above 50 for 29 consecutive months, and above 42 for 31 consecutive months.
П	The ISM Nonmanufacturing Index ("NMI") fell 0.9 points to 52.0 between October and November of 2011, but rose 0.6 between November and December of 2011. The index has now been above 50 for 25 consecutive months. Generally speaking, a PMI or NMI over 50 indicates that the sector is expanding, and a PMI over 42 indicates that the overall economy is expanding.

## The U.S. Equity Markets

□ The Dow Jones Industrials were up 12.8% for the fourth quarter, and up 8.4% for the 12-month period.
 □ The NASDAQ Composite was up 7.9% for the quarter, but fell 1.8% for the 12-month period.
 □ The S&P 500 rose 11.8% for the quarter, and rose 2.1% for the year.
 □ All 10 sectors of the S&P 500 Stock Sectors rose in the fourth quarter. Energy fared the best, with an 18.2% uptick. Industrials and Materials rose 16.5% and

quarter, but fell 4.2% for the year. The Russell Midcap index rose 12.3% for the quarter, but fell 1.6% for the year.

- 15.4%, respectively. Utilities and Telecommunication Services were the laggards, rising 8.3% and 7.9%, respectively.

  In a quarter of improved growth, stocks of small-capitalization companies outperformed stocks of mid- and large-cap companies. The Russell 1000 index, a large-cap index, rose 11.9% for the fourth quarter, and rose 1.5% for the year. In comparison, the Russell 2000 index, a small-cap index, rose 15.5% for the
- Although both value- and growth-style stocks performed well during the fourth quarter, value stocks fared better. The large-cap Russell 1000 Value index rose 13.1% for the quarter, and rose 0.4% for the year. The Russell 1000 Growth index rose 10.6% for the quarter, and rose 2.6% for the year. The Russell Midcap Value index rose 13.4% for the quarter, but fell 1.4% for the year. The Russell Midcap Growth index rose 11.2% for the quarter, but fell 1.7% for the year. In small caps, the Russell 2000 Value index rose 16.0% for the quarter, but fell 5.5% for the year. The Russell 2000 Growth index rose 15.0% for the quarter, but fell 2.9% for the year.
- The concerns about the global economy and the European sovereign debt crisis that drove the CBOE VIX volatility index, the so-called "fear index," to its largest quarterly increase in history in the third quarter continued to agitate equity investors at the start of the fourth quarter. Yet the VIX fell more than 30% from mid-November on, as U.S. unemployment eased and U.S. equities rallied. The VIX ended the fourth quarter at 23.4, which is a distinct contrast from its August 8 high of 48. Historically, rallies in U.S. stocks have occurred following sharp VIX declines off of extreme highs.

Key U.S. Stock Market Index Returns (%) for the Period Ending 12/30/11					
	Quarter	12 Months	Five Years (Annualized)	Seven Years (Annualized)	
S&P 500	11.8	2.1	(0.3)	2.6	
Dow Jones	12.8	8.4	2.4	4.5	
Russell 2000	15.5	(4.2)	0.2	3.2	
Russell Midcap	12.3	(1.6)	1.4	4.9	
Russell 1000	11.9	1.5	0.0	3.0	

Source: Vestek

Past performance is not a guarantee of future results. Investors cannot invest directly in an index. The performance of unmanaged indices reflects no deductions for fees, expenses or taxes that would affect the performance of actively managed assets.

Please refer to important information, disclosures and qualifications at the end of this material.

## **Global Equity Markets**

- □ In the fourth quarter, overseas equity markets took a breather from Europe's protracted debt woes and the weakening Chinese and U.S. economies. Consequently, emerging markets ("EM") equities rose.
- The MSCI EAFE index (a benchmark for developed markets) rose 3.4% for U.S.-currency investors, and rose 4.1% for local-currency investors, as the U.S. dollar appreciated in relation to the currencies of many nations on the index. In contrast, in the third quarter of 2011, the MSCI EAFE index was down 19.0% in U.S. dollars, and fell 15.7% in local currency. For the year, the MSCI EAFE index fell 11.8% in both U.S. dollar and local currencies.
- For the fourth quarter, the MSCI Emerging Markets index was up 4.5% for U.S.-currency investors, and rose 4.9% for local-currency investors, as the U.S. dollar appreciated in relation to many emerging-market currencies. This contrasts with the previous quarter, when the MSCI Emerging Markets index was down 22.5% for U.S. dollar-based investors, and fell 14.9% for local-currency investors. For the year, the MSCI Emerging Markets index fell 18.2% in U.S. dollars, and fell 12.5% in local currencies.
- The MSCI Europe index of developed markets rose 5.5% for U.S. currency investors, and rose 7.5% for local-currency investors during the fourth quarter. For the year, the MSCI Europe index fell 10.5% for U.S. currency investors, and fell 8.8% for local-currency investors. In comparison, the MSCI Far East index fell 2.7% for the quarter in terms of the dollar, and fell 2.9% in terms of local currencies. For the year, the MSCI Far East index fell 14.6% for U.S. currency investors, and fell 18.2% for local-currency investors.
- More specific emerging economy equity market indices also rose in the fourth quarter. The MSCI BRIC (Brazil, Russia, India and China) index rose 4.4% for the quarter in terms of the dollar. The MSCI BRIC rose 5.7% for the quarter in local terms. For the year, the MSCI BRIC fell 22.7% in terms of the dollar, and fell 17.1% in local terms. In comparison, for the fourth quarter, the MSCI EM Asia index rose 3.3% in U.S. dollar terms, and rose 3.6% in local terms. For the year, the MSCI EM Asia index fell 17.2% in terms of the dollar, and fell 14.2% in local terms.

Key Global Equity Market Indices Based on the U.S. Dollar (%) for the Period Ending 12/30/11						
	Quarter	12 Months	Five Years (Annualized)	Seven Years (Annualized)		
MSCIEAFE	3.4	(11.8)	(4.3)	2.2		
MSCI EAFE Growth	3.9	(11.8)	(2.8)	2.8		
MSCI EAFE Value	2.8	(11.6)	(5.8)	1.6		
MSCI Europe	5.5	(10.5)	(4.6)	2.2		
MSCI Japan	(3.9)	(14.2)	(6.4)	(0.6)		
MSCI Emerging Markets	4.5	(18.2)	2.7	10.7		

Source: Vestek

Past performance is not a guarantee of future results. Investors cannot invest directly in an index. The performance of unmanaged indices reflects no deductions for fees, expenses or taxes that would affect the performance of actively managed assets.

Please refer to important information, disclosures and qualifications at the end of this material.

## The U.S. Bond Market

П	As sluggish U.S. economic data and European sovereign debt worries continued, investors snatched up bonds in a quest for a safe haven from stocks.
П	Thanks to this growing aversion to risk, investors flocked to Treasury bonds in the fourth quarter.
П	This flight to safety extended the strong year-long Treasurys' rally. The benchmark 10-year Treasury note produced a total annual return of 16.6%. In comparison, for the 12-month period, investment-grade corporate bonds returned 8.4%.
П	The Barclays Capital U.S. Aggregate Bond index, a general measure of the fixed-income market, rose 1.1% for the fourth quarter, and rose 7.8% for the year.
П	In contrast, the Barclays Capital High Yield index, a measure of lower-rated corporate bonds, rose 6.5% for the quarter, and rose 5.0% for the year.
П	Throughout the year, investors shook off their previous wariness of mortgage-backed securities. As a result, the Barclays Capital Mortgage Backed index was up 0.9% in the fourth quarter, and rose 6.2% for the year.
П	During the fourth quarter, investors overlooked the ongoing negative headlines about state and local government finances, which was a boon to the municipal bond market.
П	In addition, the powerful rally in U.S. Treasurys sparked municipal bond price gains, as munis played catch-up with Treasurys. As a result, the Barclays Capital Muni index was up 2.1% for the quarter, and rose 10.7% for the year.

Quarter	12 Months		
	12 WOITHS	Five Years (Annualized)	Seven Years (Annualized)
1.1	7.8	6.5	5.6
6.5	5.0	7.5	7.5
1.2	8.7	6.6	5.5
0.8	9.0	6.6	5.6
0.8	5.8	5.9	5.0
2.6	22.5	9.7	8.1
0.9	6.2	6.5	5.8
2.1	10.7	5.2	4.9
	1.1 6.5 1.2 0.8 0.8 2.6 0.9	1.1 7.8 6.5 5.0 1.2 8.7 0.8 9.0 0.8 5.8 2.6 22.5 0.9 6.2	(Annualized)           1.1         7.8         6.5           6.5         5.0         7.5           1.2         8.7         6.6           0.8         9.0         6.6           0.8         5.8         5.9           2.6         22.5         9.7           0.9         6.2         6.5

Source: Vestek

Past performance is not a guarantee of future results. Investors cannot invest directly in an index. The performance of unmanaged indices reflects no deductions for fees, expenses or taxes that would affect the performance of actively managed assets.

Please refer to important information, disclosures and qualifications at the end of this material.

#### INDEX DESCRIPTIONS:

DOW JONES INDUSTRIAL AVERAGE: The most widely used indicator of the overall condition of the stock market, a price-weighted average of 30 actively traded blue-chip stocks, primarily industrials. The 30 stocks are chosen by the editors of the Wall Street Journal (which is published by Dow Jones & Company), a practice that dates back to the beginning of the century. Charles Dow officially started the Dow in 1896, at which time it consisted of only 11 stocks. The Dow is computed using a price-weighted indexing system, rather than the more common market capweighted indexing system. Simply put, the editors at WSJ add up the prices of all the stocks and then divide by the number of stocks in the index. (In actuality, the divisor is much higher today in order to account for stock splits that have occurred in the past.) **DOW JONES-UBS COMMODITY INDEX:** Composed of futures contracts on physical commodities which are traded on U.S. exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME). NASDAQ COMPOSITE INDEX: Covers 4,500 stocks traded over the counter. It represents many small company stocks but is heavily influenced by about 100 of the largest NASDAQ stocks. It is a value-weighted index calculated on price change only and does not include income. **S&P 500 INDEX:** Covers 400 industrial, 40 utility, 20 transportation and 40 financial companies in the U.S. markets (mostly NYSE issues). The index represents about 75% of NYSE market cap and 30% of NYSE issues. It is a capitalization-weighted index calculated on a total-return basis with dividends reinvested. RUSSELL 1000 INDEX: Measures the performance of the 1,000 largest companies in the Russell 3000 index, which represents approximately 89% of the total market capitalization of the Russell 3000 index. As of the latest reconstitution, the average market capitalization was approximately \$9.9 billion; the median market capitalization was approximately \$3.7 billion. The smallest company in the index had an approximate capitalization of \$1,404.7 million. RUSSELL 1000 GROWTH INDEX: Measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. RUSSELL 1000 VALUE INDEX: Measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values. RUSSELL 2000 INDEX: Measures the performance of the 2,000 smallest companies in the Russell 3000 index, which represents approximately 11% of the total market capitalization of the Russell 3000 index. As of the latest reconstitution, the average market capitalization was approximately \$592.0 million; the median market capitalization was approximately \$500.0 million. The largest company in the index had an approximate market capitalization of \$1,402.7 million. RUSSELL 2000 GROWTH INDEX: Measures the performance of those Russell 2000 companies with higher price-tothe index had an approximate market capitalization of \$1,402.7 million. RUSSELL 2000 GROW IT INDEX: Measures the performance of those Russell 2000 companies with lower price-to-book ratios and higher forecasted growth values. RUSSELL 2000 VALUE INDEX: Measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values. RUSSELL 3000 INDEX: Measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market. RUSSELL MIDCAP INDEX: Measures the performance of the 800 smallest companies in the Russell 1000 index, which represent approximately 35% of the total market capitalization of the Russell 1000 index. As of the latest reconstitution, the average market capitalization was approximately \$3.7 billion; the median market capitalization was approximately \$2.9 billion. The largest company in the index had an approximate market capitalization of \$10.3 billion. RUSSELL MIDCAP GROWTH INDEX: Russell Midcap Growth index measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index. An investment cannot be made directly in a market index. RUSSELL MIDCAP VALUE INDEX: Measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index. An investment cannot be made directly in a market index. VIX INDEX: (Chicago Board Options Exchange Volatility Index) Estimates volatility in the S&P 500 index for the next 30 days using a weighted blend of prices for various options on the S&P 500 index

THE BARCLAYS CAPITAL U.S. AGGREGATE BOND INDEX: A broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS and CMBS. BARCLAYS CAPITAL GOVERNMENT INDEX: Barclays Capital Treasury bond and agency bond indices (all publicly issued debt of agencies of the U.S. government, quasi-federal corporations and corporate debt quaranteed by the U.S. government, but no mortgage-backed securities) are combined to form the government bond index. BARCLAYS CAPITAL U.S. INTERMEDIATE GOVERNMENT/CREDIT BOND INDEX: The Barclays Capital U.S. Intermediate Government/Credit Bond index is a total return index consisting of investment-grade corporate debt issues as well as debt issues of U.S. government agencies and the U.S. Treasury. The debt issues all maintain maturities within a range of one to 10 years. An investment cannot be made directly in a market index. BARCLAY'S CAPITAL HIGH YIELD INDEX: The Barclays Capital U.S. High Yield index covers the universe of fixed rate, noninvestment-grade debt. Pay-in-kind (PIK) bonds, Eurobonds and debt issues from countries designated as emerging markets (e.g., Argentina, Mexico, Venezuela, etc.) are excluded, but Yankee and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes and step-up coupon structures are also included. Liquidity Rules: All bonds included in the High Yield index must be dollar-denominated and nonconvertible and have at least one year remaining to maturity and an outstanding par value of at least \$150 million. Quality Rating Rules: Securities in the index must be rated Ba1 or lower. If both Moody's and S&P provide a rating for a security, the lower of the two ratings is used. A small number of unrated bonds are included in the index; to be eligible they must have previously held a high yield rating or have been associated with a high yield issuer, and must trade accordingly. Components: The index has several subcomponents. Intermediate indices include bonds with remaining maturities of less than 10 years; long indices include bonds with remaining maturities of 10 years or more. The index also has subdivisions by credit quality, and subindices are available that exclude securities in default. BARCLAYS CAPITAL MUNI INDEX: The composite measure of the total return performance of the muni-bond market. The muni market contains over 2 million bond issues. The market is divided into seven major sectors: state G.O. debt (31%), prerefunded bonds (7.7%); electric-utility revenue bonds (7.79%); hospital revenue bonds (3.4%); state-housing revenue bonds (3.4%); industrial-development and pollution-control revenue bonds (1.8%), and transportation revenue bonds (7.1%). These weightings are reviewed annually. BARCLAYS CAPITAL GOVT/CREDIT INDEX: The U.S. Government/Credit index is the nonsecuritized component of the U.S. Aggregate index and was the first macro index launched by Barclays Capital. The U.S. Government/Credit index includes Treasuries (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year), government-related issues (i.e. agency, sovereign, supranational and local-authority debt) and U.S. dollar corporates. In order to qualify for inclusion in the U.S. Government/Credit index, a bond or security must have at least one year to maturity; at least \$250 million par amount outstanding; must be rated Baa3 by Moody's, BBB- by Standard & Poor's, and BBB- by Fitch Investor Service; must be fixed rate, although it can carry a coupon that steps up; and it must be U.S.-dollar denominated. BARCLAYS CAPITAL LONG GOVERNMENT/CREDIT INDEX: Composed of all bonds covered by BARCLAYS CAPITAL GCB index with maturities of 10 years or greater. Total return comprises price appreciation/depreciation and income as a percent of the original investment. Indices are rebalanced monthly by market capitalization. BARCLAYS CAPITAL MORTGAGE BACKED SECURITIES INDEX: Includes all fixed securities issued and backed by mortgage pools of Ginnie Mae (GNMA), Fannie Mae (FNMA), Freddie Mac (FHLMC) and half-coupon securities. The index excludes buydowns, graduated equity mortgages (GEM), project loans, Nonagency (whole loans),

Please refer to important information, disclosures and qualifications at the end of this material.

jumbos, collateralized mortgage obligations ("CMOs"), graduated payment mortgages ("GPMs"), adjustable rate mortgages ("ARMs"), manufactured home mortgages, prepayment-penalty collateral. Formed by grouping the universes of over 1 million individual fixed-rate MBS pools into approximately 5,500 generic aggregates. Pool aggregates must be U.S. dollar-denominated, have at least \$250 million current outstanding and average-weighted life of at least one year.

MSCI EUROPE, AUSTRALASIA AND THE FAR EAST ("EAFE") INDEX: A free-float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada. As of May 27, 2010, the index consisted of the following 22 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. MSCI EUROPE INDEX: A free-float-adjusted market capitalization-weighted index that is designed to measure developed market equity performance in Europe. As of June 2007, the index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. This series approximates the maximum possible dividend reinvestment. The amount reinvested is the dividend distributed to individuals resident in the country of the company, but does not include tax credits. MSCI JAPAN INDEX: A free-float-adjusted market capitalization index that is designed to measure equity market performance in Japan. MSCI EAFE GROWTH INDEX: A free-float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada. As of May 27, 2010, the index consisted of the following 22 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. The MSCI Global Value and Growth Indices cover the full range of developed, emerging and All Country MSCI International Equity Indices across all size segmentations. MSCI Barra uses a two dimensional framework for style segmentation in which value and growth securities are categorized using a multifactor approach, which uses three variables to define the value investment-style characteristics and five variables to define the growth investment-style characteristics, including forward-looking variables. The objective of the index design is to divide constituents of an underlying MSCI Equity index into respective value and growth indices, each targeting 50% of the free float-adjusted market capitalization of the underlying market index. MSCI EAFE VALUE INDEX: A free-float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada. As of May 27, 2010, the index consisted of the following 22 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. The MSCI Value and Growth Indices cover the full range of developed, emerging and All Country MSCI Equity Indices. The MSCI Value and Growth Indices cover the full range of developed, emerging and All Country MSCI Equity Indices. As of the close of May 30, 2003, MSCI implemented an enhanced methodology for the MSCI Global Value and Growth Indices, adopting a two dimensional framework for style segmentation in which value and growth securities are categorized using different attributes: three for value and five for growth including forward-looking variables. The objective of the index design is to divide constituents of an underlying MSCI Standard Country index into a value index and a growth index, each targeting 50% of the free float-adjusted market capitalization of the underlying country index. Country Value/Growth indices are then aggregated into regional value/growth indices. Prior to May 30, 2003, the indices used price/book value (P/BV) ratios to divide the standard MSCI country indices into value and growth indices. All securities were classified as either "value" securities (low P/BV securities) or "growth" securities (high P/BV securities), relative to each MSCI country index. MSCI FAR EAST INDEX: A free-float-adjusted market capitalization weighted index that is designed to measure developed market equity performance in the Far East. As of March 2010, the index consists of the following three developed country indices: Japan, Hong Kong and Singapore. MSCI EMERGING MARKETS INDEX: A free-float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of May 27, 2010, the index consisted of the following 21 emerging-market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand and Turkey. MSCI BRIC INDEX: A free-float-adjusted market capitalization index that measures equity market performance in larger emerging markets. The index consists of the following emerging market country indices: Brazil, Russia, India and China. MSCI EM ASIA INDEX: A free-floatadjusted market capitalization index that measures equity market performance in emerging markets in Asia. The index consists of the following emerging-market country indices: China, India, Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand,

Please refer to important information, disclosures and qualifications at the end of this material

#### **DISCLOSURES**

Although the statements of fact and data in this report have been obtained from, and are based upon, sources the firm believes reliable, we do not guarantee their accuracy, and any such information may be incomplete or condensed. All opinions included in this report constitute the firm's judgment as of the date of this report and are subject to change without notice. This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security. This report may contain forward-looking statements, and there can be no guarantee that they will come to pass. Past performance is not a guarantee of future results.

The indices are unmanaged, and an investor cannot invest directly in an index. The indices are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns consist of income and capital appreciation (or depreciation) and do not take into account fees, taxes or other charges. Such fees and charges would reduce performance. Index performance is calculated on a total return basis and assumes that dividends and distributions were reinvested.

To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. These risks may be magnified in **emerging markets**. International investing may not be for everyone. **Value investing** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. **Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer. With respect to fixed income securities, please note that, in general, as prevailing interest rates rise, fixed income securities prices will fall. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issuer.

© 2012 Morgan Stanley Smith Barney LLC. Member SIPC. Consulting Group is a business of Morgan Stanley Smith Barney LLC.

2012-PS-95 1/2012

PRESENTED TO: Retirement Board	of Authority	DATE:	02/22/2012
SUBJECT: Retirement Board	of Authority Comments	ITEM #: Enclosure: Action Item	2011/2012-027 No No
Prepared by: Requested by:	Keenan Financial Services  Retirement Board of Authority	_	

## BACKGROUND:

Each member may report about various matters involving the Retirement Board of Authority.

## RECOMMENDATION:

There will be no Retirement Board of Authority discussion except to ask questions or refer matters to staff, and no action will be taken unless listed on a subsequent agenda.

PRESENTED TO: Retirement Board	of Authority	DATE:	02/22/2012
SUBJECT: Program Coordina	tor/Consultant Comments	ITEM #: Enclosure: Action Item	2011/2012-028 No No
Prepared by:	Keenan Financial Services  Retirement Board of Authority	_	

## BACKGROUND:

The Program Coordinator may address the Board of Authority on any matter pertaining to the Retirement Board of Authority that is not on the agenda

## RECOMMENDATION:

There will be no Retirement Board of Authority discussion except to ask questions or refer matters to staff, and no action will be taken unless listed on a subsequent agenda.

PRESENTED TO: Retirement Board of	of Authority	DATE:	02/22/2012
SUBJECT: Visitors Comments	3	ITEM #: Enclosure: Action Item	2011/2012-029 No No
Prepared by:	Keenan Financial Services  Retirement Board of Authority	_	

## BACKGROUND:

The public may address the Retirement Board of Authority on any matter pertaining to the Board that is not on the agenda.

## RECOMMENDATION:

The Chairperson reserves the right to limit the time of presentations by individual or topic.

PRESENTED TO: Retirement Board of Authority		DATE:	02/22/2012
SUBJECT:		ITEM #:	2011/2012-030
Date, Time and Agenda Items for Next Meeting		Enclosure:	No
		Action Item	No
Prepared by: Requested by:	Keenan Financial Services Retirement Board of Authority		

## BACKGROUND:

Members and visitors may suggest items for consideration at the next Retirement Board of Authority meeting.

## RECOMMENDATION:

The Board will determine Agenda Items for the next meeting.