CITY OF OAKLAND

MEMORANDUM

TO: DEANNA J. SANTANA
CITY ADMINISTRATOR

FROM: Katano Kasaine
Treasury Manager

SUBJECT: Status of Oakland Police and Fire Retirement System

DATE: May 7, 2012

City Administrator Approval

Date 5/10/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

This report is informational only. The purpose of this report is to summarize the current actuarial status of the Police and Fire Retirement System (PFRS) fund as of July 01, 2011 and the investment performance of the PFRS fund as of March 31, 2012.

EXECUTIVE SUMMARY

Based on the most recent Actuarial Study dated July 1, 2011, the PFRS Fund is 37.5% funded. The City of Oakland (the "City") has resumed contributing to the Plan effective July 1, 2011. The City's required contribution to the Plan is $45.6 million for FY 2011/2012 and $38.5 million for FY 2012/2013. The City of Oakland is currently making monthly payments of $3.8 million to the Plan for the FY 2011/2012 required contribution.

OUTCOME

This report is informational only.

BACKGROUND/LEGISLATIVE HISTORY

The Police and Fire Retirement System (PFRS) is a closed defined benefit plan, which was created pursuant to Article XXVI of the City Charter. The Plan was closed to new members on June 30, 1976. There is only one remaining active member; all other members are retirees and beneficiaries.

Pursuant to Article XXVI of the Oakland City Charter, the PFRS Board has exclusive control of the administration and investment of the PFRS Fund. The Board is charged with the maintenance and operation of the System and is required to formulate all Board rules and regulations.

EXECUTIVE SUMMARY

PFRS is a closed defined benefit plan. Its purpose is to provide a sound and efficient retirement system to ensure payment and continuity of members' retirement benefits.

In March 1997 the City issued Pension Obligation Bonds (POBs) and as a result deposited $417 million into the Plan to pay the City's contributions through June 2011. In accordance with the funding agreement entered into at the time the POBs were issued in 1997, City payments to the Plan were suspended from February 25, 1997 to June 30, 2011. The City resumed contributing to the Plan effective July 1, 2011. The City has been making monthly payments of $3.8 million towards a total contribution of $45.6 million for FY 2011/2012. Beginning FY 2012/2013, the required contribution will be $38.45 million

ANALYSIS

PFRS Membership

The City Charter establishes plan membership, contribution, and benefit provisions. The System serves the City's sworn employees hired prior to July 1, 1976 who have not transferred to the California Public Employees' Retirement System (CalPERS). The System provides that any member who completes at least 25 years of service, regardless of age, or completes 20 years of service and attains age 55, or has attained age 65, is eligible for retirement benefits. The System also provides for various death, disability and survivors' benefits. After retirement, benefits change according to the corresponding rank of active sworn personnel. Upon a retiree's death, benefits are continued to an eligible surviving spouse at a two-thirds level for service and non-duty disabled retirees and at a 100% level for retirements for duty related deaths. Currently all of the System's members are retired with the exception of one.

The PFRS membership as of March 31, 2012 is 1,086, which includes one active employee, 763 retirees and 322 beneficiaries. The average age of the PFRS membership is 75 years old. Table 1 shows additional detail regarding the PFRS membership.

Table 1
PFRS Membership
as of March 31, 2012

Membership	POLICE	FIRE	TOTAL
Retiree	449	314	763
Beneficiary	169	153	322
Active	1	0	1
Total Membership	619	467	**1,086**

Pursuant to the Oakland City Charter, the PFRS retirees are paid a fixed percentage of "compensation attached to the average rank held" at the time of retirement. This means that a PFRS retiree's pension payment is determined by a percentage of the compensation paid to current active sworn personnel who hold the same rank that the member held prior to retirement. The active Police pay elements currently deemed attached to the rank include (1) Base Pay (2) Holiday Pay, (3) Uniform Pay, (4) Shift Differential and (5) Longevity Pay. The active Fire pay elements currently deemed attached to the rank include (1) Base Pay (2) Holiday Pay, (3) Uniform Pay, and (4) FLSA in Lieu Pay. Any changes to these active sworn pay elements will change the pay that the PFRS members receive. The System provides a maximum service retirement rate of 66.67% of the current active pay that is attached to the rank. As of March 31, 2012, the average fixed retirement rate was 46.21% of the compensation attached to the rank. Based on the current active Fire MOU, retired PFRS Fire members received a temporary reduction in Base Pay of 8.85%. In addition, FLSA in Lieu Pay has been temporarily suspended for all active and retired members. In the current Police MOU the next scheduled COLA increases for active and retired members is 2% scheduled for July 1, 2014 and an additional 2% scheduled for January 1, 2015. Table 2 below shows the annual total PFRS payroll.

Table 2
Total Annual Pension Payroll to PFRS Members and Beneficiaries
Fiscal Years Ending June 30

Fiscal Year Ending	FY 2008/2009	FY 2009/2010	FY 2010/2011	Estimated FY 2011/2012 (a)
Total PFRS Annual Payroll	$72,658,263	$69,757,607	$66,846,953	$62,145,000

Average retiree gross monthly pension payment as of March 31, 2012 was $4,690.
(a) Based on July 01, 2011 PFRS Actuary Valuation

PFRS Investment Portfolio

Pursuant to the City Charter the System's investments are controlled by the PFRS Board. The Board sets an investment policy that authorizes investment in a variety of equity and fixed income securities. The System's portfolio is currently managed by eleven external investment managers and the majority of the portfolio is held in a Trust at The Bank of New York-Mellon. The System investments are also restricted by the City Charter. In November 2006, City voters passed Measure M amending the City Charter to allow the System's Board to invest in non-dividend paying stocks and to change the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard as defined by the California Constitution. As of October 2007, the Plan's investment portfolio has had an allocation of approximately 70% equity (stocks) and 30% fixed income (bonds).

The System's net investment income for the years ended June 30, 2011 and 2010 was $63,816,989 and $43,556,150, respectively. The actual annual returns for these two years were 24.5% and 15.0%, respectively.

The last PFRS status report to City Council was December 31, 2010. At that time, the value of the portfolio was $308.2 million. During the past fifteen months (January 1, 2011 – March 31, 2012), the portfolio decreased by $22.4 million. As of March 31, 2012, the total PFRS investment portfolio value was $285.8 million. The main source of this decrease was the payout of monthly pension payments. The chart below shows the PFRS Investment Portfolio allocation as of March 31, 2012.

PFRS INVESTMENT PORFOLIO ALLOCATION

as of March 31, 2012

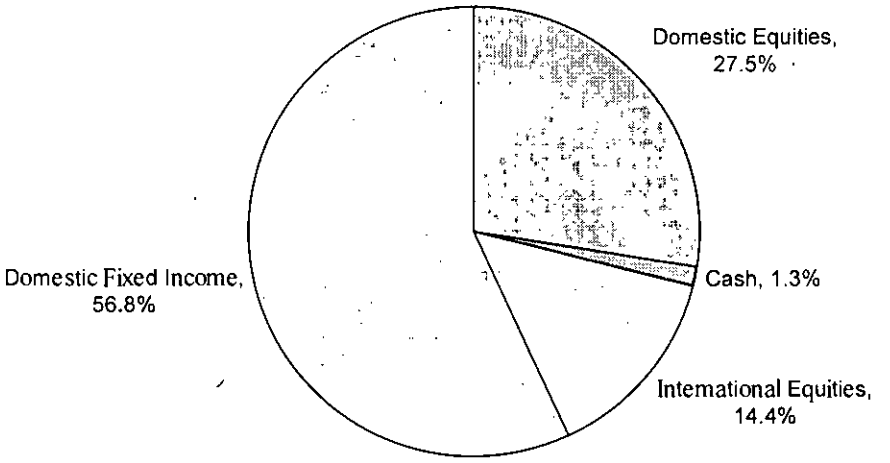


Table 3 below illustrates the historical portfolio performance.

Table 3
PFRS TOTAL FUND PERFORMANCE
Fiscal Years Ending June 30, 2011

Fiscal Year Ending	1 Year	3 Year	5 Year	10 Year	15 Year
PFRS Fund	24.5%	5.4%	4.7%	5.5%	7.1%
Comparisons:					
PFRS Actuarial Expected Rate of Return	7.0%	7.5%	7.7%	7.9%	7.9%
Policy Target (blend) (a)	23.4%	4.7%	4.4%	5.4%	6.9%
Median Fund (b)	21.3%	4.3%	4.8%	5.6%	---
CalPERS Investment Returns	21.7%	2.9%	4.3%	5.8%	7.4%

Current: PFRS Portfolio Performance for FYTD 2011/2012 (July 01, 2011 to March 31, 2012) is 4.53%. The PFRS Board recently approved the lowering of the expected actuarial rate of return from 7% to 6.75% effective July 01, 2011.
(a) The Current Policy benchmark consists of 53% Russell 3000 (Domestic Equities), 17% MSCI ACWI ex U.S. (International Equities), and 30% BC Universal (Fixed Income).
(b) Mellon Total Fund Public Universe

Over the fiscal one year period ending June 30, 2011, the PFRS investment portfolio produced an annualized return of 24.5%, outperforming its policy benchmark return of 23.4%. Over the latest 3-year period, the PFRS portfolio produced an annualized return of 5.4%, outperforming its benchmark return of 4.7%. Over the latest 5-year period, PFRS' average annual return of 4.7% bested that of the target benchmark by 30 basis points. The PFRS portfolio outperformed the median fund during the latest one year and 3-year periods, placing the portfolio in the top quartile. However, over the latest 5-year period the portfolio slightly trailed the median fund. Longer-term underperformance versus the median was largely due to PFRS' lack of exposure to the real estate and alternative asset classes relative to peers. As a result of the financial crisis of 2008-2009, the PFRS portfolio trailed its actuarial rate of return over the long term.

The return for the current Fiscal Year to date (July 01, 2011 to March 31, 2012) is 4.53% compared to a policy benchmark of 4.40% over the same time period.

PFRS Actuarial Valuation and Funding Status

Article XXVI, Section 2602(b) of the City Charter requires that the PFRS plan be actuarially valuated at intervals not to exceed three years. The latest actuarial valuation as of July 1, 2011 was performed by actuary, Bartel Associates. As of this report, the PFRS Funded Ratio (actuarial value of assets divided by present value of future benefits) is 37.5% and a contribution of $38.5 million is required for FY 2012/13.

PFRS Actuarial Assumptions

The PFRS Actuarial Assumptions are recommended by the Actuary through an experienced study and are approved by the PFRS Board. A recent experience study was conducted for the July 1, 2011 actuarial valuation. Several changes were made based on this experience study including introducing a generational mortality improvement assumption, lowering the investment return rate from 7.0% to 6.75%, and lowering assumptions regarding short-term and long-term future retirement benefit increases. The experience study assumptions were adopted by the PFRS Board at their April 2012 meeting.

The following are the significant assumptions used to compute contribution requirements:

- 6.75% investment rate of retum
- 3.25% inflation rate, US
- 3.375% inflation rate, Bay Area
- Based on the current Sworn MOUs, Fire Retirees received a temporary reduction of 8.85% and receive no increases until July 1, 2014, when the current contract expires. Police will receive no increases until a 2.0% increase on July 1, 2014 and a 2.0% increase on January 1, 2015. After provisions in current MOUs, assumed increases in retirement benefits are 2% per year for 3 years and 3% per year for 3 years, increasing to 3.975% per year beginning 7/1/2020 for Fire and 7/1/2021 for Police

New agreements with the City's Police and Fire that provided for lower salary increases and a reduction in salary for firefighters significantly reduced liabilities. In addition, staff performed a survey of current PFRS retirees to obtain updated data on their eligible spouses. Based upon the survey results, due to divorce or death, 99 spouses were removed from the valuation data. The net effect of these assumption changes was a decrease in the Unfunded Actuarial Liability of $83 million.

Table 3 below shows a summary of the significant changes to the PFRS July 01, 2011 actuarial assumption changes and their fiscal impact.

Table 3
Estimated impact of Actuarial Assumption Changes
Police and Fire Retirement System
($millions)

Change	Estimated Impact on July 1, 2011 Unfunded Actuarial Liability (millions)	Estimated Impact on City FY 2012/13 Contribution to PFRS (millions)
New MOU Provisions	($51)	($4.3)
Spouse Data and Assumptions	(14)	(1.2)
Salary Increase Assumptions	(50)	(2.5)
Mortality Rates and Improvement	17	1.7
Discount Rate	15	1.0
Total	($83)	($5.3)

PFRS Actuarial Valuation Results

The new Unfunded Actuarial Liability (UAL) as of July 1, 2011 is $426.8 million. The required employer contribution for Fiscal Year 2012/2013 is $38.451 million, or 30% of Safety payroll.

Actuarial results for the Oakland Police and Fire Plan are as follows:

Table 4
Schedule of Funding Progress
Police and Fire Retirement System
($millions)

Valuation date as of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Status
2007	$888.1	$566.0	$322.1	63.70%
2009	782.5	347.2	435.3	44.40%
2010	792.2	297.8	494.4	37.60%
2011	683.2	256.4	426.8	37.50%

Police and Fire Retirement Board

The System is governed by a board of seven trustees; the Mayor or his designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation.

Current PFRS Board Members	Term
Robert P. Crawford, President – Elected (Active Rep)	5 Years (09/01/2008 – 08/31/2013)
John Speakman – Elected (Fire Rep)	5 Years (09/01/2010 – 08/31/2015)
Steven Bernard – Elected (Alternating Police/ Fire Rep)	3 Years (09/01/2010 – 08/31/2013)
Jaime Godfrey, Vice President – Appointed (Bank Rep)	5 Years (09/01/2008 – 08/31/2013)
Cynthia Blumgart – Appointed (Insurance Rep)	5 Years (09/01/2011 – 08/31/2016)
Walter Johnson – Appointed (Community Rep)	5 Years (09/01/2008 – 08/31/2013)
Osborn Solitei – Appointed (Mayoral Rep)	Term of Mayor (01/03/2011 – 01/2/2015)

Actuary
Bartel Associates, LLC
San Mateo, CA

Investment Consultant
Pension Consulting Alliance, Inc.
Portland, Oregon

Legal Advisor
Olson Hagei and Fishburn, LLC
(Outside Legal Counsel)
Sacramento, CA

PUBLIC OUTREACH/INTEREST

This item did not require any additional public outreach other than the required posting on the City's website.

COORDINATION

This report has been prepared by the Retirement Division in coordination with PFRS Actuary and Investment Consultant.

COST SUMMARY/IMPLICATIONS

Based on the most recent Actuarial Study dated July 1, 2011, the PFRS Retirement Systems is 37.5% funded. The System's Unfunded Actuarial Liability (UAL) is $426.8 million. The City of Oakland required employer contribution for Fiscal Year 2012/2013 is $38.451 million.

SUSTAINABLE OPPORTUNITIES

Economic: There are no environmental opportunities associated with this report.

Environmental: There are no environmental opportunities associated with this report.

Social Equity: There is no social equity opportunities associated with this report.

CEQA

This report is not a project under CEQA.

For questions regarding this report, please contact Katano Kasaine, Treasury Manager, at (510) 238-2989.

Respectfully submitted,

KATANO KASAINE
Treasury Manager

Prepared by:
Téir Jenkins, Retirement Systems Accountant
Retirement Division

Attachments:

Appendix A: PFRS July 1, 2011 Actuarial Valuation
Appendix B: PFRS Investment Fund Performance Report as of June 30, 2011

Item: _____
Finance and Management Committee
May 22, 2012

Appendix A:

PFRS July 1, 2011 Actuarial Valuation

CITY OF OAKLAND

BARTEL ASSOCIATES, LLC

Oakland Police and Fire Retirement System

July 1, 2011
Actuarial Valuation

May 2012

BARTEL ASSOCIATES, LLC

ACTUARIAL VALUATION

CITY OF OAKLAND
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (PFRS)

We are pleased to present the results of our July 1, 2011 actuarial valuation of the Oakland Police and Fire Retirement System (PFRS).

The purpose of this valuation is to:

- calculate actuarial liabilities, funded status, and contribution levels including the 2012/13 fiscal year employer contribution, and
- determine the 2012/13 annual required contribution and July 1, 2011 System actuarial liabilities and funded status pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 50 (GASB 25 and 50).

The report is based on the System's benefit provisions, participant data and financial information supplied by the System and summarized in this report which we relied on and did not audit. We reviewed the participant data for reasonableness.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principals and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASB Statements No. 25 and 50. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Sincerely,

John E. Bartel, ASA, MAAA, FCA
President

Marilyn Oliver, FSA, MAAA, EA, FCA
Vice President

Deanna Van Valer, ASA, MAAA, EA, FCA
Assistant Vice President

411 Borel Avenue, Suite 101 • San Mateo, California 94402
main: 650/377-1600 • *fax:* 650/345-8057 • *web:* www.bartel-associates.com

TABLE OF CONTENTS

SECTION	PAGE
1. Summary	1
2. Asset Information	4
3. Liability Information	8
4. FY 2012/13 Employer Contribution	9
5. Actuarial (Gain)/Loss Analysis	11
6. Headcount and Benefit Payment Projection	12
7. GASB Reporting and Disclosure Information	14
8. Plan Provisions	17
9. Methods and Assumptions	19
10. Participant Data	23
Appendix A – Life Expectancies	27

SECTION 1
SUMMARY

Following is a summary of valuation results. See notes following the table for a description of terms.

	amounts in $000's July 1, 2010	July 1, 2011	% change
■ Participant Counts			
• Actives	1	1	0.0%
• Terminated Vested	-	-	0.0%
• Service Retirees	531	510	-4.0%
• Disability Retirees	287	277	-3.5%
• Beneficiaries	334	319	-4.5%
• Total	1,153	1,107	-4.0%
■ Actuarial Liabilities			
• Present Value of Projected Benefits	$792,202	$683,162	-13.8%
■ Assets			
• Market Value of Assets	$288,729	$284,882	-1.3%
• 1 Year Annualized Rate of Return	15.5%	25.0%	
• Actuarial Value of Assets	$297,829	$256,394	-13.9%
• 1 Year Annualized Rate of Return	6.8%	9.9%	
■ Plan Funded Status			
• Actuarial Liability	$792,202	$683,162	-13.8%
• Actuarial Value of Plan Assets	297,829	256,394	-13.9%
• Unfunded Actuarial Liability	494,373	426,768	-13.7%
• Funded Ratio	37.6%	37.5%	
■ FY City Contribution	2011/12	2012/13	
• Annual Amount[1]	$45,634	$38,451	-15.7%
• Expected Total Police & Fire Payroll	144,045	129,176	
• As a % of Total Police & Fire Payroll	32%	30%	

[1] Payments are based on funding the UAL by July 1, 2026 and are assumed to increase by the payroll assumption in future years.

SECTION 1
SUMMARY

Purpose of Actuarial Valuation

The actual costs of a defined benefit plan are determined entirely by the amount of the benefit promise, the actual salaries and service of the plan participants, and how long they and their beneficiaries live to receive payments. An actuarial valuation is a mathematical model which attempts to quantify this actual cost by setting assumptions that, it is hoped, duplicate reality as closely as possible. In addition, the actuarial methodology provides a reasonable plan, or method, towards funding the expected costs of the plan. This information assists the plan trustees so they can make informed decisions regarding plan investments and how much in contributions will be required from the employer to eventually fully pay for the plan's costs.

Summary Information

The Oakland Police and Fire Retirement System (PFRS) is a closed defined benefit pension plan. It was closed to new members on June 30, 1976. There is only one remaining active member.

Results

Since the last valuation there were experience gains on assets and liabilities. 2010/11 investment earnings of 25.0% on market value resulted in earnings on actuarial value of 9.9% which was above the 2010/11 7.0% investment earnings assumption. New agreements with the City's Police and Fire that provided for lower salary increases and a reduction in salary for firefighters significantly reduced liabilities. Additionally, the System performed a survey of current retirees to obtain updated data on their eligible spouses. Based upon the survey results, due to divorce or death, 99 spouses were removed from the valuation data. The new MOU's and improved spouse data decreased liabilities by $65.9 million.

An experience study was performed and several changes were made including introducing a generational mortality improvement assumption, lowering the investment return rate from 7.0% to 6.75% and lowering assumptions regarding short-term and long-term future retirement benefit increases. The net effect of these assumption changes was to decrease liabilities by $18.5 million.

The recommended employer contribution for fiscal year 2012/13 is $38.451 million, or 30% of payroll. The Unfunded Actuarial Liability (UAL) as of July 1, 2011 is $426.8 million, as opposed to an expected UAL of $531.9 million. Because of an existing funding agreement between the City and the System no contributions were required for the 2010/11 plan year. Consequently the funded ratio (actuarial value of assets / actuarial liabilities) was expected to decline from 37.6% to 31.6%. The actual funded ratio as of July1, 2011 is 37.5%.

SECTION 1
SUMMARY

Definitions

The Present Value of Projected Benefits (PVPB) is the present value of all future benefits for current plan participants. The Actuarial Liability (AL) represents the portion of the PVPB attributable to past service. Since all participants in this plan are either retired or assumed to retire at the valuation date, the Actuarial Liability is equal to the Present Value of Projected Benefits for this plan. The Actuarial Value of Assets is a smoothed value of assets used to even out market fluctuations in asset values. The Unfunded Actuarial Liability (UAL) is equal to the difference between the Actuarial Liability and the Actuarial Value of Assets.

SECTION 2
ASSET INFORMATION

Asset information is based on the System's audited financial statements.

Asset **Reconciliation – Market Value** of Assets

Following is a reconciliation of the July 1, 2010 and July 1, 2011 market value of assets.

(amounts in $000's)

	2010/11	
■ Beginning of Year Balance		$288,729
■ Adjustment from Prior Year[2]		(42)
■ Net Beginning of Year Assets		288,687
• Member Contributions	$ 7	
• City Contributions	0	
• Miscellaneous Income	63	
• Investment Income	63,817	
■ Total Additions		63,887
• Benefit Payments	66,847	
• Expenses	845	
■ Total Deductions		67,692
■ Net End of Year Assets		284,882
■ Approximate **Return** on Assets		25.0%

[2] Final asset value for 6/30/2010 reported after valuation completed.

SECTION 2
ASSET INFORMATION

Asset Allocation – Market Value of Assets

Information shown below is based on an allocation strategy of approximately 70% equities and 30% fixed income.

(amounts in $000's)

		Market Value	Percentage
■ Cash in City Treasury		$3,418	
■ Receivables		4,517	
■ Investments			
• Short-Term Investments	16,863		5.7%
• Bonds	81,523		27.8%
• Domestic Equities and Mutual Funds	147,305		50.2%
• International Equities and Mutual Funds	47,939		16.3%
• Real Estate Mortgage Loans	38		0.0%
■ Total Investments		293,668	100.0%
■ Total Assets		301,602	
■ Liabilities		(16,720)	
■ Net Pension Benefit Trust Assets		284,882	

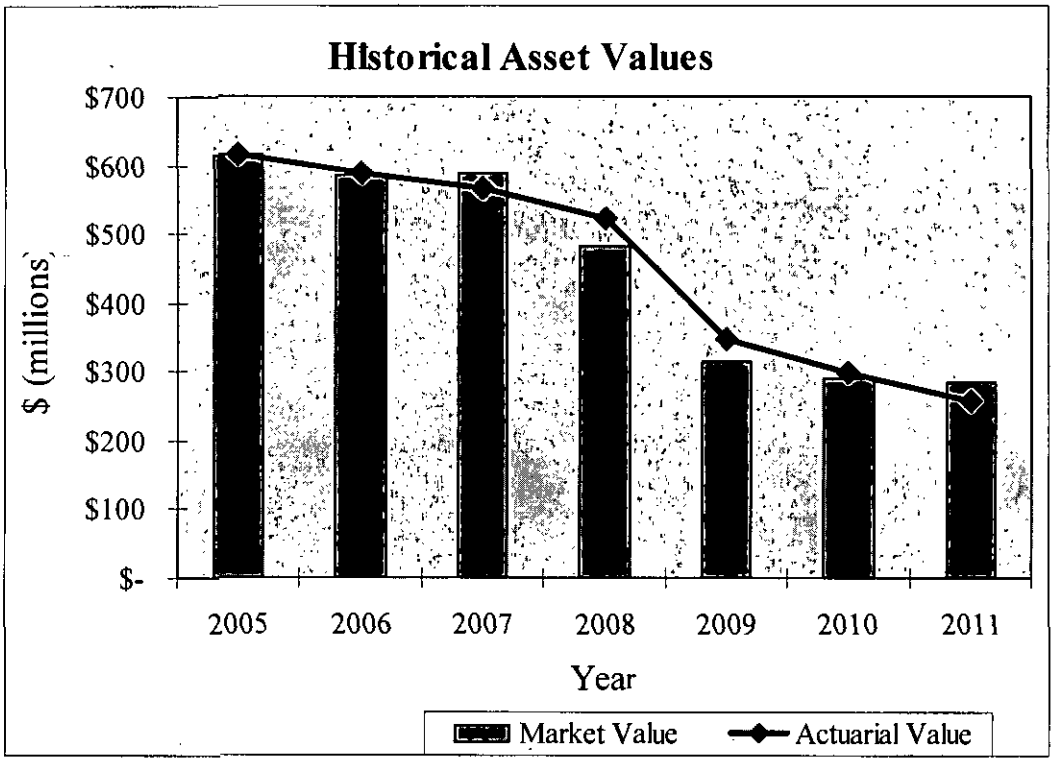
These figures do not take into account securities lending collateral of $11,536 and liabilities of ($11,536).

SECTION 2
ASSET INFORMATION

Development of Actuarial Value of Assets

The Actuarial Value of Assets is smoothed based on market results over a period of years. This method reduces volatility in contribution rates, and also reduces volatility in the size of the actuarial gains and losses due to asset returns. Because the plan is frozen to new membership and the membership is primarily composed of retirees and beneficiaries, it is important from a cash flow perspective that asset values used in calculating contribution rates not stray too far from market value. For this reason, a corridor of 10% around the market value is imposed upon the actuarial value. Following is the development of this year's actuarial value of assets.

		(amounts in $000's)
(1)	Actuarial Value of Assets July 1, 2010	297,829
	2010/11 Contributions and Miscellaneous Income	70
	2010/11 Benefit Payments and Administrative Expenses	(67,692)
	2010/11 Expected Investment Return at 7.0%	18,521
(2)	Expected Actuarial Value July 1, 2011	248,728
(3)	Market Value of Assets July 1, 2011	284,882
(4)	Difference between Market Value and Expected Actuarial Value	36,154
(5)	Preliminary Actuarial Value of Assets July 1, 2011: = (2) + 20%[(4)]	255,959
(6)	Ratio of Preliminary Actuarial Value to Market Value	89.8%
(7)	90% of Market Value	256,394
(8)	110% of Market Value	313,371
(9)	Actuarial Value of Assets July 1, 2011: = (5) but not less than (7) or over (8)	256,394


Historical Asset Values
$700
$600
$500
$400
$300
$200
$100
$-
$ (millions)
2005
2006
2007
2008
2009
2010
2011
Year
Market Value
Actuarial Value

SECTION 3
LIABILITY INFORMATION

A comparison of the Present Value of Benefits for the current and prior valuations follows. Note that numbers throughout the report may not add due to rounding.

(amounts in $000's)

	July 1, 2010	July 1, 2011
Present Value of Projected Benefits		
■ Active Employees	$ 1,174	$ 1,078
■ Service Retirees	431,493	372,319
■ Disability Refirees	228,049	194,530
■ Beneficiaries	131,487	115,235
■ Total	792,202	683,162

Results by employee category: (amounts in $000's)

	July 1, 2011		
	Police	Fire	Total
Present Value of Projected Benefits			
■ Active Employees	$ 1,078	$ 0	$ 1,078
■ Service Retirees	246,615	125,704	372,319
■ Disability Retirees	108,013	86,517	194,530
■ Beneficiaries	61,126	54,109	115,235
■ Total	416,833	266,329	683,162

(amounts in $000's)

	July 1, 2010	July 1, 2011
Plan Funded Status		
■ Actuarial Liability (AL)	$ 792,202	$ 683,162
■ Actuarial Value of Plan Assets (AVA)	297,829	256,394
■ Unfunded Actuarial Liability (UAL = AL – AVA)	494,373	426,768
■ Funded Ratio	37.6%	37.5%

SECTION 4
FY 2012/13 EMPLOYER CONTRIBUTION

Development of 2012/13 Employer Contribution

The City of Oakland issued Pension Obligation Bonds (POBs) in the spring of 1997. We understand the Bond amount was set equal to the actuarial present value of expected City contributions from March 1997 through June 2011. The City deposited a total of $417.2 million into the system in 1997, which was treated as an advance contribution. In return, the City was given a contribution "holiday" until July 2011. The expected end result of this arrangement was that the City would resume contributions in FY 2011/12 at the contribution rate in force prior to the issuance of the POB's.

The July 1, 1996 actuarial valuafion anticipated City contribution rates in FY 2011/12 of approximately 48% of Safety payroll. However, by the July 1, 1998 valuation, the plan had become fully funded due to large asset and liability gains and the impact of an assumption change. Over the intervening years, net losses have exceeded gains leading the FY 2011/12 anticipated contribution rate to increase to 30% of payroll in this valuation. The derivation of the FY 2012/13 contribution amount is shown below. Calculations are based on the July 1, 2011 valuation results rolled forward to July 1, 2012. Payments are based on funding unfunded actuarial liabilities by July 1, 2026 and are assumed to increase each year by the salary increase assumption.

Projections to 7/1/2012		(amounts in $000's)
■ Actuarial Liability as of 7/1/2011		$ 683,162
■ Expected Benefit Payments for FY 2011/12		(62,145)
■ Expected Interest at 6.75% for FY 2011/12		44,051
■ Projected Actuarial Liability as of 7/1/2012		665,068
	Market	Actuarial
■ Value of Assets as of 7/1/2011	$ 284,882	256,394
■ Expected Contributions for FY 2011/12	45,634	45,634
■ Expected Benefit Payments & Expenses for FY 2011/12	(63,059)	(63,059)
■ Expected Investment Return at 6.75% for FY 2011/12	18,651	16,728
■ Expected Value of Assets as of 7/1/2012	286,109	255,697
■ Difference between Expected Market Value of Assets (MVA) and Actuarial Value of Assets (AVA)		30,411
■ Preliminary Actuarial Value of Assets as of 7/1/2012 (Expected AVA plus one fifth of the difference between Expected MVA and Expected AVA)		261,780
■ Projected Actuarial Value of Assets as of 7/1/2012 (within 10% corridor of Market Assets)		261,780

SECTION 4
FY 2012/13 EMPLOYER CONTRIBUTION

Development of 2012/13 Contribution	(amounts in $000's)
■ Projected Actuarial Liability as of 7/1/2012	$ 665,068
■ Projected Actuarial Value of Assets as of 7/1/2012	261,780
■ Projected Unfunded Actuarial Liability as of 7/1/2012	403,288
■ Projected Administrative Expenses for FY 2012/13	945
■ Amortization of UAL (14 years to 2026)	37,506
■ Recommended Employer Contribution for FY 2012/13[3]	38,451
■ Projected Total Payroll for all Police & Fire[4]	129,176
■ Recommended Employer Contribution (percent of payroll)	29.8%

[3] Annual amount assuming equal payments at the end of each month.

[4] Projected using PFRS salary increase assumptions (including temporary 8.85% salary decrease for Fire) and assuming constant workforce from CalPERS Safety Payroll of $133,570,286 for the fiscal year ended 6/30/2011 adjusted for pay of active PFRS member.

SECTION 5
ACTUARIAL (GAIN)/LOSS ANALYSIS

Following is the gain/loss analysis of plan assets, actuarial liability, and unfunded actuarial liability for the one-year period between valuation dates (amounts in 000's).

	Present Value of Benefits	Actuarial Value of Assets	Unfunded/ (Surplus) Actuarial Liability
■ July 1, 2010	$792,202	$297,829	$494,373
■ July 1, 2011 Expected value	778,027	246,134	528,979
■ July 1, 2011 Actual value prior to changes	767,637	256,394	511,242
	(10,390)	10,260	(20,650)
■ Experience (Gain)/Loss			
• Admin. expenses/benefit payments	0	536	(536)
• Investment gain	0	9,724	(9,724)
• No 7/1/11 3.5% increase for Fire	(10,652)	0	(10,652)
• Other	262	0	262
• Total	(10,390)	10,260	(20,650)
■ 2010/11 Benefits & Data Changes			
• Changes to MOUs	(51,062)	0	(51,062)
• Updated spouse data	(14,887)	0	(14,887)
• Total	(65,949)	0	(65,949)
■ 2010/11 Assumption Changes			
• Short-term salary increases	(40,356)	0	(40,356)
• Long-term salary increases	(9,825)	0	(9,825)
• Mortality	17,102	0	17,102
• Discount rate	14,553	0	14,553
• Total	(18,525)	0	(18,525)
■ Total Changes	(94,865)	10,260	(105,125)
■ July 1, 2011	$683,162	$256,394	$426,768

The July 1, 2011 Unfunded Actuarial Liability reflects 2010/11 gains on invested assets and substantial reductions in the present value of benefits due to new MOU's, improved data for current retirees' spouses, and the net result of a number of assumption changes. The reduction in the expected long-term rate of return on assets and introduction of a generational mortality improvement assumption increased the present value of benefits but these increases in present value were more than offset by the impact of the decrease in the assumed short-term and long-term salary increase assumptions.

SECTION 6
HEADCOUNT AND BENEFIT PAYMENT PROJECTION

Projection of Beginning of Fiscal Year Headcount and Benefit Payments during Fiscal Year[5]

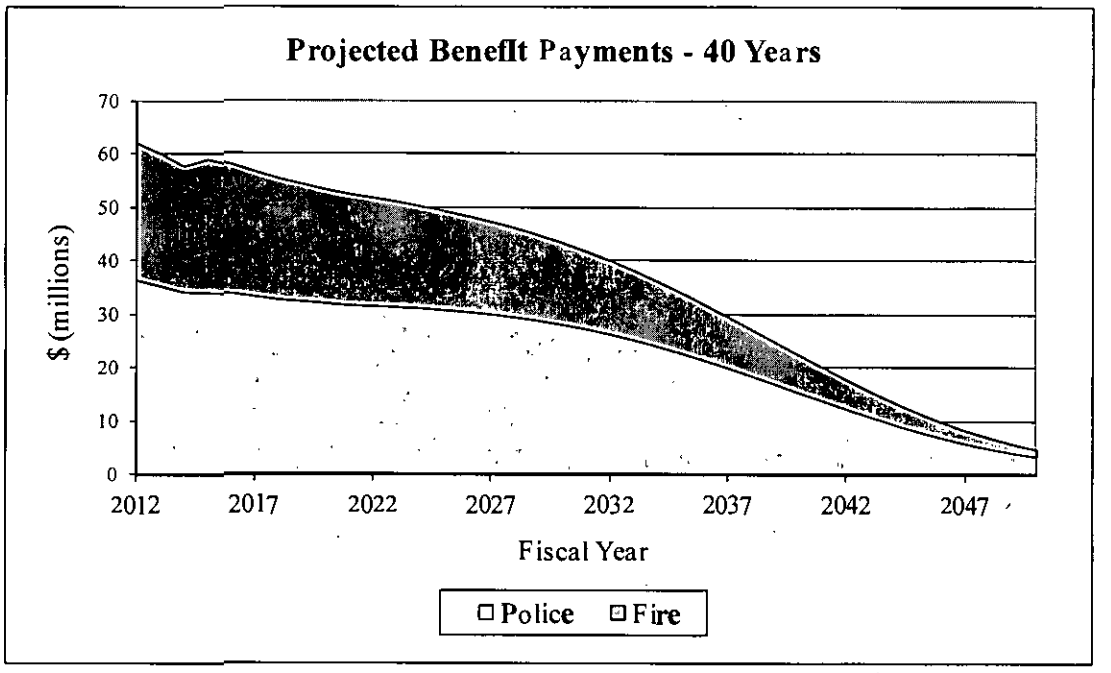
Fiscal Year Ending June 30,	Police		Fire		Total	
	Count at Start of FY	Benefits during FY (000's)	Count at Start of FY	Benefits during FY (000's)	Count at Start of FY	Benefits during FY (000's)
2012	630	$ 36,500	477	$ 25,645	1,107	$ 62,145
2013	613	35,402	457	24,684	1,070	60,086
2014	595	34,280	436	23,467	1,031	57,747
2015	576	34,143	416	24,902	992	59,045
2016	558	33,953	396	24,051	954	58,004
2017	539	33,387	376	23,187	915	56,574
2018	520	32,786	356	22,533	876	55,319
2019	502	32,471	337	21,862	839	54,333
2020	483	32,117	318	21,176	801	53,293
2021	465	31,724	300	20,673	765	52,397
2022	447	$ 31,589	282	$ 20,150	729	$ 51,739
2023	428	31,405	265	19,608	693	51,013
2024	411	31,167	249	19,048	660	50,215
2025	393	30,869	233	18,469	626	49,338
2026	375	30,501	218	17,869	593	48,370
2027	357	30,054	203	17,247	560	47,301
2028	339	29,519	189	16,601	528	46,120
2029	321	28,888	176	15,930	497	44,818
2030	303	28,153	163	15,231	466	43,384
2031	285	27,309	150	14,503	435	41,812
2032	266	$ 26,352	138	$ 13,746	404	$ 40,098
2033	247	25,282	126	12,961	373	38,243
2034	229	24,103	115	12,152	344	36,255
2035	210	22,822	104	11,322	314	34,144
2036	192	21,450	94	10,475	286	31,925
2037	174	20,002	84	9,619	258	29,621
2038	156	18,496	74	8,761	230	27,257
2039	139	16,951	65	7,913	204	24,864
2040	122	15,393	57	7,084	179	22,477
2041	107	13,846	49	6,283	156	20,129

[5] Expected count at beginning of fiscal year (for example, as of July 1, 2011 for the fiscal year ending June 30, 2012). Expected benefit payments for entire fiscal year taking into account mortality during the year. Fire payments through FY 2013/14 reflect temporary 8.85% decrease in benefit payments.

SECTION 6

HEADCOUNT AND BENEFIT PAYMENT PROJECTION

Fiscal Year Ending June 30,	Police		Fire		Total	
	Count at Start of FY	Benefits during FY (000's)	Count at Start of FY	Benefits during FY (000's)	Count at Start of FY	Benefits during FY (000's)
2042	93	$ 12,332	42	$ 5,519	135	$ 17,851
2043	80	10,876	36	4,803	116	15,679
2044	68	9,499	30	4,140	98	13,639
2045	57	8,217	25	3,533	82	11,750
2046	48	7,043	21	2,988	69	10,031
2047	39	5,984	17	2,505	56	8,489
2048	32	5,044	14	2,085	46	7,129
2049	26	4,218	11	1,722	37	5,940
2050	21	3,504	9	1,415	30	4,919
2051	17	2,893	7	1,156	24	4,049



SECTION 8
PLAN PROVISIONS

The Government Accounting Standards Board Statement Numbers 25 and 50 (GASB 25 and 50) require defined benefit plans to disclose certain information. Tables containing this information follow. The actuarial methods and assumptions that they are based on appear below.

Actuarial Methods and Assumptions

- The Plan's annual required contribution (ARC) for the fiscal year ending June 30, 2012 is based on the June 30, 2010 actuarial valuation. The ARC for this period is $45.1 million and is based on 40-year level dollar amortization of the unfunded actuarial liability from the GASB 25 transition date, 25 years remaining as of July 1, 2011.

- The Plan's annual required contribution (ARC) for the fiscal year ending June 30, 2013 is based on the June 30, 2011 actuarial valuation. The ARC for this period is $34.2 million and is based on 40-year level dollar amortization of the unfunded actuarial liability from the GASB 25 transition date, 24 years remaining as of July 1, 2012.

- The actuarial funding method used is the entry age normal cost method. Under the Entry Age Normal Cost method, the Present Value of Future Benefits (PVFB) is the present value of all future benefits for current plan participants. The Actuarial Accrued Liability (AAL) represents the portion of the PVFB attributable to past service. Since all participants in this plan are either retired or assumed to retire at the valuation date, the Actuarial Accrued Liability is equal to the Present Value of Projected Benefits for this plan.

Following is a summary of June 30, 2011 actuarial assumptions and methods. These assumptions were used to calculate the FY 2012/13 ARC and the July 1, 2011 Funding Progress Schedule information.

Interest rate:	6.75%
Healthy Mortality:	97% of the RP-2000 Table with ages setback 1 year for males, the RP-2000 Table for females. Mortality improvement projected with Scale AA
Disabled Mortality	CalPERS industrial Disability Mortality Table (1997-2007 Experience Study) projected with Scale AA
Retirement:	Current actives are assumed to retire immediately.
Inflation, US:	3.25% per year
Inflation, Bay Area:	3.375% per year
Future Benefit Increases:	After provisions in current MOUs, 2% per year for 3 years, 3% per year for 3 years, increasing to 3.975% per year beginning 7/1/2020 for Fire and 7/1/2021 for Police (3.375% Bay Area inflation plus 0.6% productivity increase)
Actuarial Cost Method:	Entry Age Normal Cost Method
Actuarial Value of Assets:	Recognizes 1/5 of the difference between market value and an expected actuarial value of assets each year. Must stay within a corridor of 10% around the Market Value of Assets.
Amortization:	Level Dollar Payments over 24 Years from 7/1/2012
Administrative Expenses:	Budgeted Expenses for the prior fiscal year increased by Bay Area inflation assumption

Changes during the Year

New agreements with the City's Police and Fire that provided for lower salary increases and a reduction in salary for firefighters significantly reduced liabilities. The new MOU's decreased liabilities by $51.1 million.

An experience study was performed and several changes were made including updating of mortality rates, introducing a generational mortality improvement assumption, lowering the investment return rate from 7.0% to 6.75% and lowering assumptions regarding short-term and long-term future retirement benefit increases. The net effect of these assumption changes was to decrease liabilities by $18.5 million.

SECTION 8
PLAN PROVISIONS

Disclosure Information

Employer Contribution Schedule[6]
(dollars in millions)

Fiscal Year Ending June 30	Annual Required Contribution	Percentage Contributed
2002	$ 0.0	100%
2003	18.2	0
2004	24.0	0
2005	23.6	75
2006	23.6	0
2007	23.6	0
2008	28.6	0
2009	32.1	0
2010	37.5	0
2011	41.4	0
2012	45.1	na[7]
2013	34.2	na

Funding Progress Schedule[8]
(dollars in millions)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets (A)	Actuarial Accrued Liability (AAL) (B)	Unfunded AAL (UAAL) (B-A)	Funded Ratio (A/B)	Covered Total Plan Payroll (C)	Unfunded/ (Funded) AAL as a Percentage of Covered Plan Payroll ([B-A]/C)
2002	$674.7	$875.5	$200.8	77.1%	$2.6	7723%
2003	615.1	890.6	275.5	69.1	0.4	68875%
2004	621.6	890.2	268.6	69.8	0.3	89533%
2005	614.9	883.5	268.6	69.6	0.3	89533%
2006[9]	n/a	n/a	n/a	n/a	n/a	n/a
2007	566.0	888.1	322.1	63.7	0.4	80525%
2008[10]	n/a	n/a	n/a	n/a	n/a	n/a
2009	347.2	782.5	435.3	44.4	0.1	435300%
2010	297.8	792.2	494.4	37.6	0.1	494400%
2011	256.4	683.2	426.8	37.5	0.1	426800%

[6] For years before 2006, information is taken from the reports of the prior actuary.

[7] The City is contributing the recommended contribution on a monthly basis. Midmonth payments through April have totaled $37,923,330.

[8] For years before 2006, information is taken from the reports of the prior actuary.

[9] No actuarial valuation was performed as of July 1, 2006.

[10] No actuarial valuation was performed as of July 1, 2008.

SECTION 8
PLAN PROVISIONS

Plan Effective Date

Originally established effective July 1, 1951.

A. Plan Year

July 1 to June 30.

B. Participation

The plan is closed with no new members since June 30, 1976.

C. Eligibility for Service Retirement

25 years of service, or 20 years of service and age 55, or age 65. A reduced early retirement is available with 20 years of service.

D. Salary

Current pensionable earnings attached to final 3-year average rank including holiday and uniform allowances and ARCA decision benefits for Police members.

E. Employee Contributions

Each participant contributes a certain percentage based on his or her age at entry into the plan. Sample rates are as follows:

Entry Age	Member Rate
20	6.15%
25	5.81%
30	5.41%
35	7.53%
40	6.89%

F. Service Retirement Benefit

50% of Salary plus 1.67% for each Year of Service in excess of the eligibility service threshold up to 16.67% (10 years). Benefits are prorated for retirements with less than 20 years of service.

G. Duty Disability Retirement Benefit

Same as service retirement benefit if 25 or more years of service.

H. Non-Duty Disability Retirement Benefit

Same as service retirement benefit if age 55 attained.

I. Death Benefit – Post Retirement Death

$1,000 paid to designated beneficiary of former members without spouses upon death.

J. Cost of Living

Benefit increases are based on increases in salary for rank at retirement as defined in E on the previous page.

K. Benefit Forms

Lifetime benefit to the member, 66-2/3% continuance to spouse if death after retirement is not duty-related. 100% continuance to spouse for duty-related death.

SECTION 9
METHODS AND ASSUMPTIONS

Actuarial Methods

The actuarial cost method used for funding purposes in this valuation is a modification of the Aggregate Cost Method. For GASB 25 purposes, the Entry Age Normal (EAN) method is used.

Under the modified Aggregate method, the excess of the Actuarial Present Value of Projected Benefits (PVPB) of the group over the Actuarial Value of Assets is amortized to July 1, 2026 as a level percent of total City pay for all Safety employees, whether covered by this system or CalPERS. Thus, assuming that all actuarial assumptions are realized, it will be fully amortized by 2026.

Under the Entry Age Normal Cost method, the Actuarial Liability (AL) represents the portion of the Present Value of Projected Benefits (PVPB) attributable to past service. The difference between the AL and the Actuarial Value of Assets is the Unfunded Actuarial Liability (UAL). Since all its members are either retired or assumed to retire at the valuation date for PFRS, the AL equals the Present Value of Projected Benefits and the UAL under this method and under the modified Aggregate method are the same. For GASB 25 purposes, the Unfunded Actuarial Liability (UAL) is amortized as a level dollar amount over 40 years from transition (1996), with 25 years remaining as of 7/1/2011.

Assets

The Actuarial Value of Assets gradually recognizes changes in market value occurring after July 1, 2005 over time. This method recognizes 1/5 of the difference between market value and an expected actuarial value of assets each year. In addition, the Actuarial Value of Assets must stay within a corridor of 10% around the Market Value of Assets.

The expected actuarial value is equal to the prior year's actuarial value adjusted for the year's cash flows and with interest credited at the actuarially assumed investment return rate (8% before July 1, 2009, 7.5% for 2009/10, 7.0% for 2010/11, and 6.75% after July 1, 2011).

Expenses

Investment expenses are assumed to be paid by earnings in excess of the assumed rate of return. Administrative expenses are based upon the approved budget amount for FY 2011/12 and are incorporated in annual recommended contributions. For purposes of projecting FY 2012/13 contributions, administrative expenses are assumed to increase in line with Bay Area CPI at the

rate of 3.375% per year.

Data

The City provided the actual current benefit payment amounts paid as of 7/1/2011 for all Police and Fire retirees and beneficiaries currently receiving payments. The Fire retirees' benefit amounts reflect the updates in the MOU to reduce salaries by 8.85%, suspend FLSA pay and change the work week from 52 hours to 56 hours. These changes are temporary. June 30, 2011 asset information was supplied by the City based on audited financial statement information.

In addition, the City surveyed the system's retirees in order to properly update beneficiary information. In 99 cases, current retiree spouses were removed from the valuation data because the couple had divorced or the spouse had predeceased the retiree.

SECTION 9
METHODS AND ASSUMPTIONS

Actuarial Assumptions

Assumptions used in the valuation are as follows:

- **Discount rate**
  6.75%, in the prior valuation 7.0% was used.

- **Inflation**
  3.25% , US
  3.375%, Bay Area, in the prior valuation 3.50% was used.

- **Post-Retirement Increases (Based on Salary Increases for Rank at Retirement)**
  3.375% Inflation, 0.6% Productivity
  Total 3.975%, in the prior valuation 4.5% was used (3.5% inflation, 1.0% productivity).

  Since the prior valuation, the MOU's have been moditied and extended through June 30, 2013 for Police and June 30, 2012 for Fire. Based on the current contract, Police will receive no increases until a 2.0% increase on July 1, 2014 and a 2.0% increase on January 1, 2015. Police are assumed to begin receiving annual 2.0% increases effective immediately following the expiration of the current contract on July 1, 2015 for 3 years. Beginning July 1, 2018 they are assumed to receive annual 3.0% increases for 3 years. Beginning July 1, 2021 they are assumed to receive annual 3.975% increases.

  Based on the current contract, Fire receive no increases until July 1, 2014, when the current contract expires. For tiscal years 2011/12, 2012/13 and 2013/14, Fire have agreed to an 8.85% reduction. In addition, a July 2009 adjustment suspending FLSA pay and lengthening the work week for Fire applies through June 2012. Annual 2.0% increases are assumed to begin on July 1, 2014, changing to 3.0% annual increases beginning July 1, 2017 for 3 years. Beginning July 1, 2020 they are assumed to receive annual 3.975% increases.

  In the prior valuation, Police would have received a 4% increase on January 1, 2013 and were assumed to begin receiving 3.5% increases on July 1, 2013 changing to 4.5% on July 1, 2016. Fire were assumed to begin receiving 3.5% increases on July 1, 2011 changing to 4.5% increases on July 1, 2016.

- Collection of Past Overpayments to Fire

  The 8.85% reductions to Fire pension were effective July 1, 2011 but not implemented until March 2012. The Board decided to collect the 7 months of overpayments over the remaining life of the MOU, from March 2012 to July 2014. Valuation results are slightly modified to take into account that due to retiree deaths, some of the overpayments will never be collected.

- Termination And Pre-retirement Disability and Mortality

  None.

- Retirement

  Active employee assumed to retire at the valuation date.

- Healthy Mortality (for service retirees and beneficiaries)

  97% of the RP-2000 Table with ages setback 1 year for males, the RP-2000 Table for females. Mortality improvement was projected with Scale AA. The prior valuation used 95% of the RP-2000 table set back I year for males and 98% of the RP-2000 Table for females with no mortality improvement projection. The same rates are used for pre-retirement and post-retirement mortality.

- Disabled Mortality (for disability retirees)

  CalPERS Industrial Disability from the 1997-2007 Experience Study projected for mortality improvement with Scale AA. The prior valuation did not use a mortality improvement projection.

- Survivor Continuance

  30% of disabled retirees' deaths are duty-related and thus entitle the surviving spouse to 100% continuance of the retirees' allowance.

SECTION 10
PARTICIPANT DATA

Data Summary

Following summarizes participant demographic information for the July 1, 2010 and July 1, 2011 actuarial valuafions. The data was provided by the City. It was checked for reasonableness, but not audited.

	July 1, 2010			July 1, 2011		
	Police	Fire	Total	Police	Fire	Total
■ Participant Counts						
• Actives	1	-	1	1	-	I
• Service Retirees	319	212	531	313	197	510
• Disability Retirees	157	130	287	152	125	277
• Beneficiaries	176	158	334	164	155	319
• Total	653	500	1,153	630	477	1,107
■ Actives						
• Average Age	71.7	-	71.7	72.7	-	72.7
• Average Service	42.4	-	42.4	43.4	-	43.4
• Salary	$137,000	-	$137,000	$137,000	-	$137,000
■ All Inactives						
• Average Age	72.2	76.5	74.0	72.6	77.0	74.5
• Avg. Monthly Bnft.[11]	$4,870	$5,016	$4,934	$4,889	$4,576	$4,754
■ Service Retirees						
• Average Age	69.2	76.8	72.2	70.0	77.2	72.8
• Avg. Monthly Bnft.	$5,332	$5,696	$5,478	$5,340	$5,210	$5,289
■ Disabled Retirees						
• Average Age	70.1	70.9	70.5	70.7	71.6	71.1
• Avg. Monthly Bnft.	$5,110	$5,133	$5,121	$5,094	$4,712	$4,922
■ Beneficiaries						
• Average Age	79.4	80.6	80.0	79.3	81.1	80.2
• Avg. Monthly Bnft.	$3,819	$4,008	$3,908	$3,838	$3,662	$3,752

[11] The 2010 amounts reflect decreases for Fire Holiday and FLSA pay. The 2011 amounts reflect 8.85% reduction in Fire salary and decreases for Fire Holiday and FLSA pay. Spouses covered under qualified domestic relations orders are not counted separately.

SECTION 10
PARTICIPANT DATA

Data Reconciliation
7/1/2010 to 7/1/2011

	Police				
	Actives	Service Retirees	Disability Retirees	Beneficiaries	Total
■ **July 1, 2010**	1	319	157	176	653
• Retired	-	-	-	-	-
• Died	-	(6)	(5)	(15)	(26)
• New Beneficiary	-	-	-	3	3
■ **July 1, 2011**	1	313	152	164	630

	Fire				
	Actives	Service Retirees	Disability Retirees	Beneficiaries	Total
■ **July 1, 2010**	-	212	130	158	500
• Retired	-	-	-	-	-
• Died	-	(15)	(5)	(9)	(29)
• New Beneficiary	-	-	-	6	6
■ **July 1, 2011**	-	197	125	155	477

	Total				
	Actives	Service Retirees	Disability Retirees	Beneficiaries	Total
■ **July 1, 2010**	1	531	287	334	1,153
• Retired	-	-	-	-	-
• Died	-	(21)	(10)	(24)	(55)
• New Beneficiary	-	-	-	9	9
■ **July 1, 2011**	1	510	277	319	1,107

SECTION 10
PARTICIPANT DATA

Distribution of Service Retirees

	Police		Fire		Total	
	Count	Monthly Benefit	Count	Monthly Benefit[12]	Count	Monthly Benefit
Under 50	-	$ -	-	$ -	-	$ -
50 - 54	-	-	-	-	-	-
55 - 59	14	71,329	-	-	14	71,329
60 - 64	74	406,776	22	100,982	96	507,758
65 - 69	110	550,417	39	204,226	149	754,643
70 - 74	48	253,012	22	114,380	70	367,392
75 - 79	19	114,966	31	162,416	50	277,382
80 - 84	24	128,045	35	193,406	59	321,452
85 - 89	15	93,496	31	162,468	46	255,964
90 - 94	9	53,222	14	72,841	23	126,063
95 - 99	-	-	3	15,566	3	15,566
100 & over	-	-	-	-	-	-
Total	313	1,671,263	197	1,026,285	510	2,697,548

Distribution of Disability Retirees

	Police		Fire		Total	
	Count	Monthly Benefit	Count	Monthly Benefit[12]	Count	Monthly Benefit
Under 50	-	$ -	-	$ -	-	$ -
50 - 54	-	-	-	-	-	-
55 - 59	2	9,620	3	14,971	5	24,591
60 - 64	46	231,585	28	115,874	74	347,458
65 - 69	42	201,063	37	174,082	79	375,145
70 - 74	21	109,577	18	95,161	39	204,739
75 - 79	12	63,620	14	65,348	26	128,967
80 - 84	14	72,606	8	40,850	22	113,456
85 - 89	13	74,613	10	48,711	23	123,324
90 - 94	2	11,678	7	33,968	9	45,645
95 - 99	-	-	-	-	-	-
100 & over	-	-	-	-	-	-
Total	152	774,362	125	588,964	277	1,363,326

[12] Reflects temporary reductions for Fire.

Distribution of Beneficiaries

	Police		Fire		Total	
	Count	Monthly Benefit	Count	Monthly Benefit[13]	Count	Monthly Benefit
Under 50	-	$ -	-	$ -	-	$ -
50 – 54	2	8,164	1	3,578	3	11,742
55 – 59	8	33,951	5	19,389	13	53,340
60 – 64	13	52,160	9	36,433	22	88,593
65 – 69	17	61,606	12	44,131	29	105,737
70 – 74	10	31,598	10	36,443	20	68,040
75 – 79	18	74,160	19	62,232	37	136,392
80 – 84	38	149,642	34	120,071	72	269,712
85 – 89	33	115,735	40	144,020	73	259,755
90 – 94	20	87,074	18	72,294	38	159,368
95 – 99	5	15,283	6	23,720	11	39,003
100 & over	-	-	1	5,297	1	5,297
Total	164	629,371	155	567,606	319	1,196,977

[13] Reflects temporary reductions for Fire.

APPENDIX A
LIFE EXPECTANCIES

Life Expectancies for healthy retirees and beneficiaries are based on 97% of the RP-2000 table with ages set back 1 year for males and the RP-2000 table for females. Mortality improvement is projected with Scale AA.

Age at 7/1/11	Male	Female
50	34.6	35.1
55	29.5	30.2
60	24.5	25.4
65	19.9	21.0
70	15.7	16.9
75	12.0	13.2
80	8.8	10.0
85	6.2	7.2
90	4.3	5.2
95	3.1	4.0
100	2.4	3.3

Life Expectancies for disabled retirees are based on the CalPERS Industrial Disability table from the 1997-2007 Experience Study projected for mortality improvement with Scale AA.

Age at 7/1/11	Male	Female
50	32.3	33.6
55	27.5	28.9
60	22.9	24.6
65	18.5	20.4
70	14.5	16.5
75	10.8	12.8
80	7.8	9.5
85	5.7	6.7
90	4.1	4.6
95	2.7	3.0

Appendix B

PFRS Investment Fund Performance Report as of June 30, 2011

City of Oakland Police and Fire Retirement System

Quarterly Report
Executive Summary

June 30, 2011

Table of Contents

Section	Tab
Total Portfolio Summary	A
Investment Market Risk Metrics	B
Economic Overview	C
Total Portfolio Review	D
Manager Monitoring/Probation List	E
Individual Manager Performance	F

INTRODUCTION

As of June 30, 2011, the City of Oakland Police and Fire Retirement System (OPFRS) portfolio had an aggregate value of $290.9 million. This represents a ($13.1) million decrease in value over the quarter. This includes minus ($18.0) million in withdrawals during the quarter for payments to beneficiaries. During the previous one-year period, the OPFRS Total Portfolio decreased by ($3.6) million including ($72.0) million in withdrawals during the period.

Asset Allocation Trends

The asset allocation targets (see table on page 18) reflect those as of June 30, 2011. Target weightings reflect the Plan's current asset allocation (effective 10/1/2007).

With respect to policy targets, the portfolio ended the latest quarter ***overweight*** ***Domestic Equity*** and ***Cash while underweight Fixed Income*** and ***International Equity.***

Recent Investment Performance

During the most recent quarter, the OPFRS Total Portfolio generated a positive absolute return of 0.9%, gross of fees. The Plan outperformed its policy benchmark by 10 basis points. The portfolio has outperformed its policy benchmark over extended time periods.

The Total Portfolio has produced positive returns relative to the Median Fund over short and extended time periods. Performance differences with respect to the Median Fund can be attributed largely to differences in asset allocation.

	Quarter	1 Year	3 Year	5 Year
Total Portfolio[1]	0.9	24.5	5.4	4.7
Policy Benchmark[2]	0.8	23.4	4.7	4.4
Excess Return	0.1	1.1	0.7	0.3
Reference: Median Fund[3]	1.3	21.3	4.3	4.8
Reference: Total Net of Fees[4]	0.7	23.9	4.8	4.1

[1] Gross of Fees. Performance since 2005 includes securities lending.
[2] The Policy benchmark consists of 53% Russell 3000, 17% MSCI ACWI ex U.S., and 30% BC Universal.
[3] Mellon Total Funds Public Universe.
[4] Net of fee returns are estimated based on OPFRS manager fee schedule

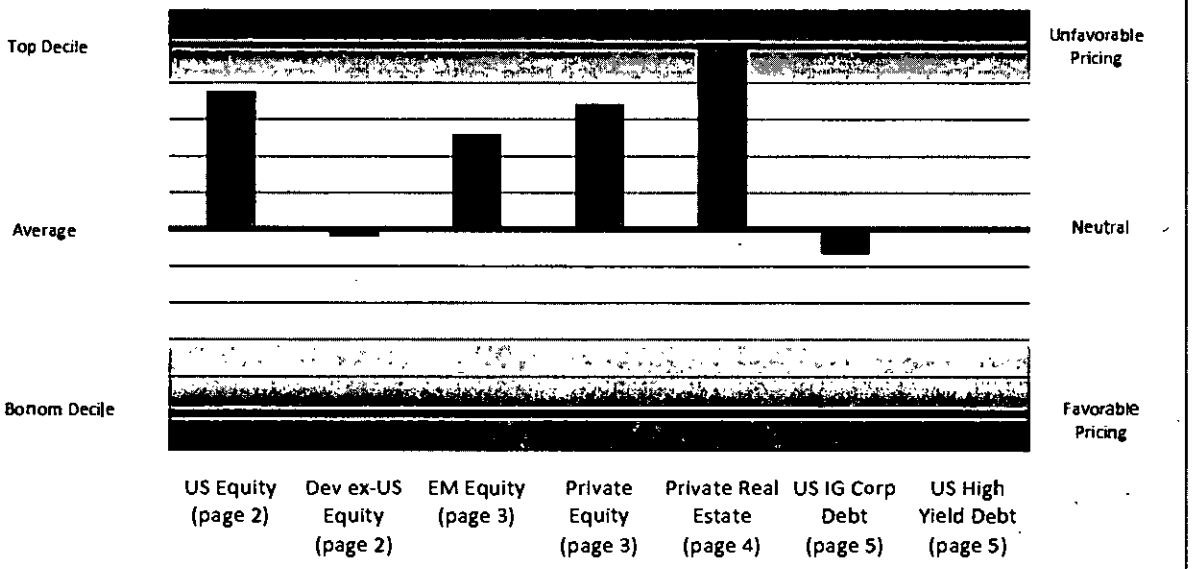
Investment Market Risk Metrics

Takeaways

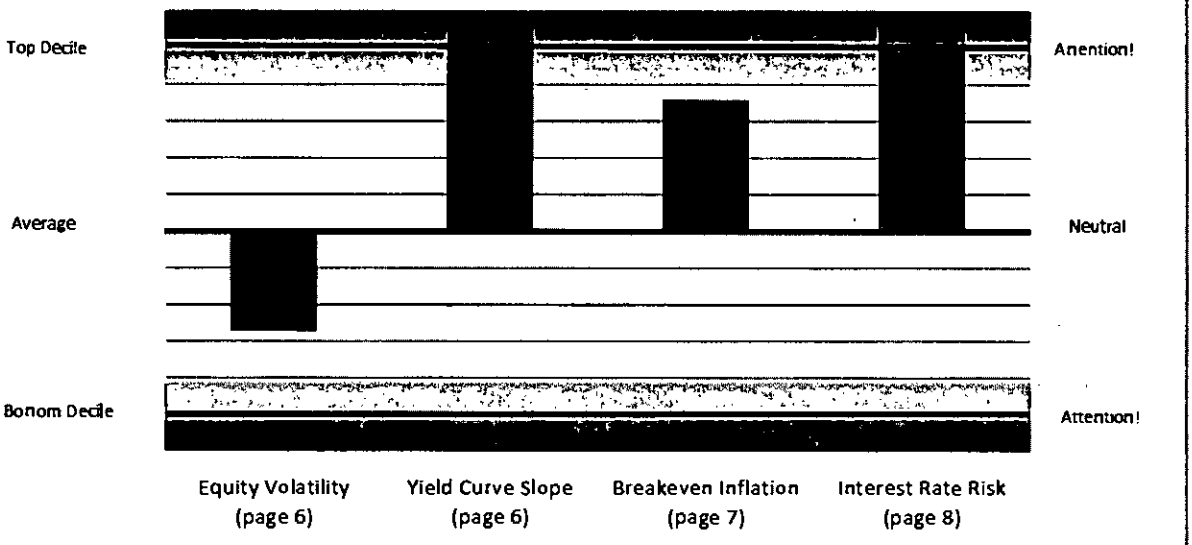
- Interest rate risk increased as Treasury yields declined in June
- Commodity prices declined again in June, but breakeven inflation levels rose at month end
- The yield curve remains steep
- U.S. public equity pricing is near top decile levels
- Private real estate pricing is at top decile levels (March price data)
- Private equity pricing has moderated somewhat
- Pricing of Non-U.S. developed market equities are slightly below long-term averages, emerging market equity pricing is moderating
- Credit spreads are near long-term averages

Risk Overview

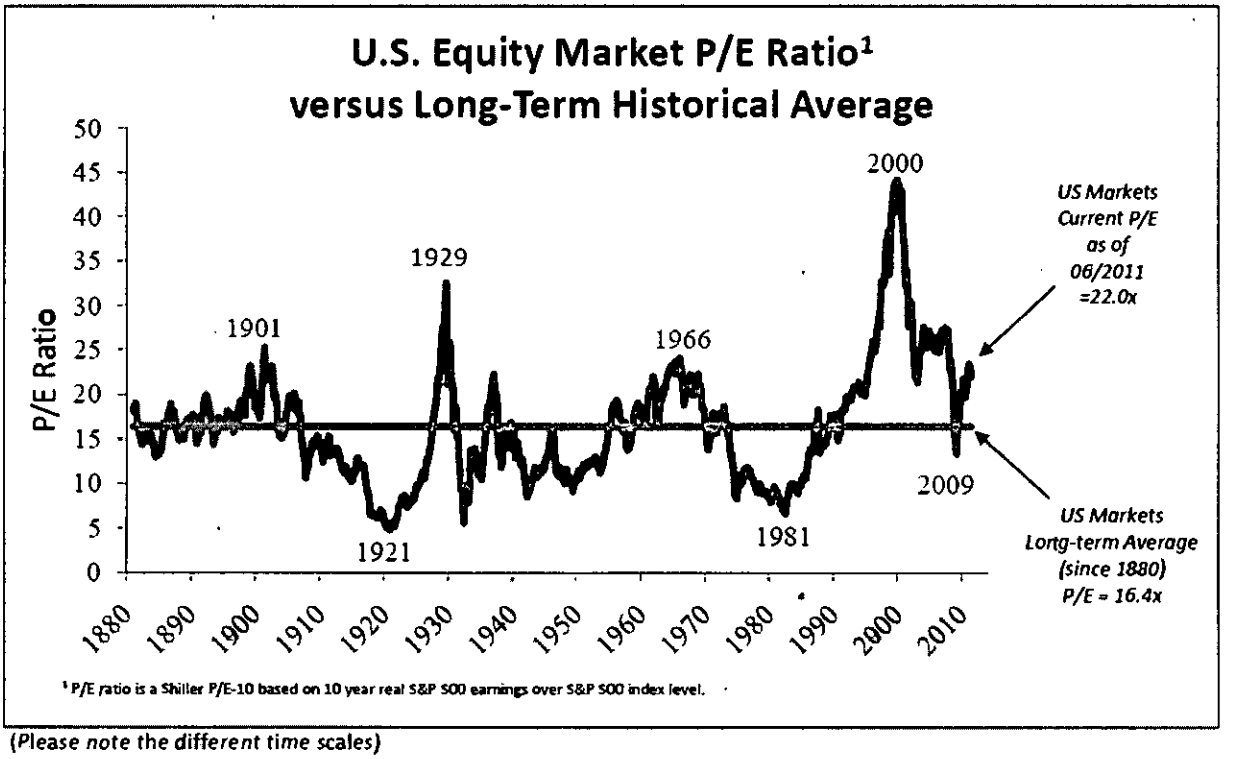
Valuation Metrics versus Historical Range
A Measure of Risk



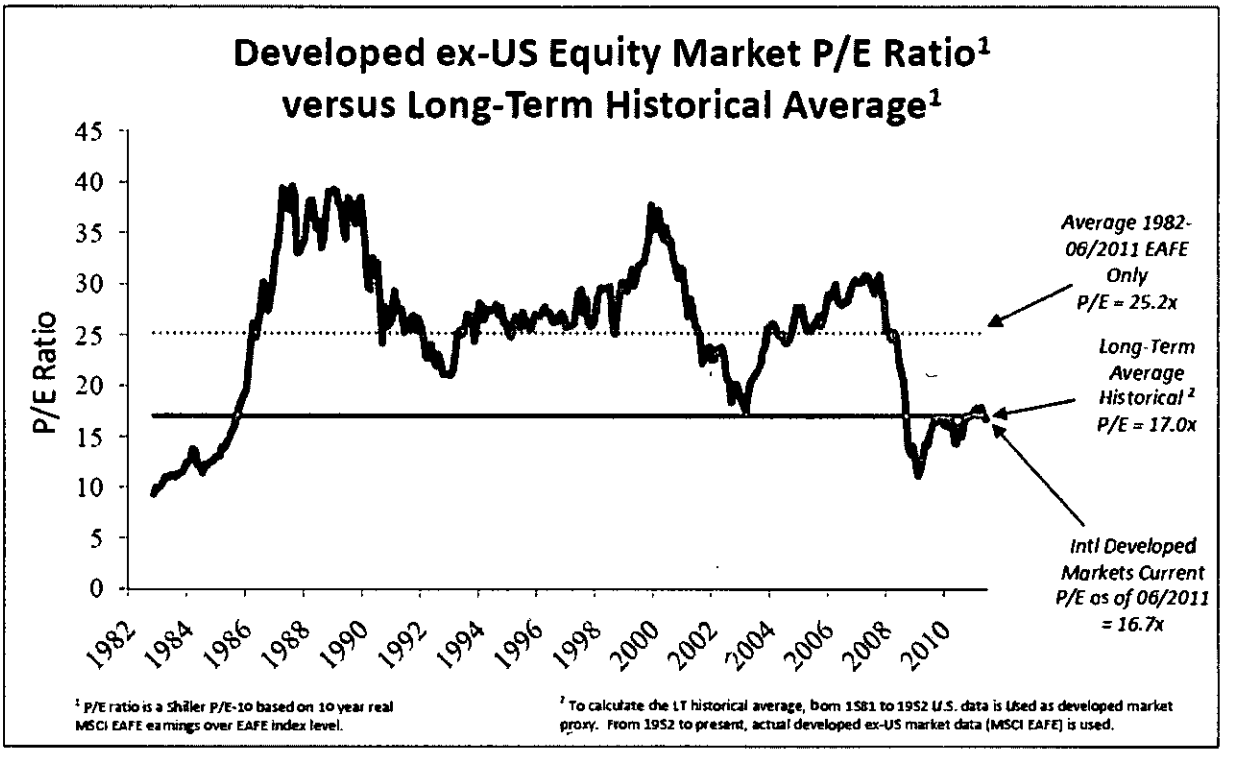
Other Important Metrics wIthin their Historical Ranges
Pay Attention to Extreme Readings



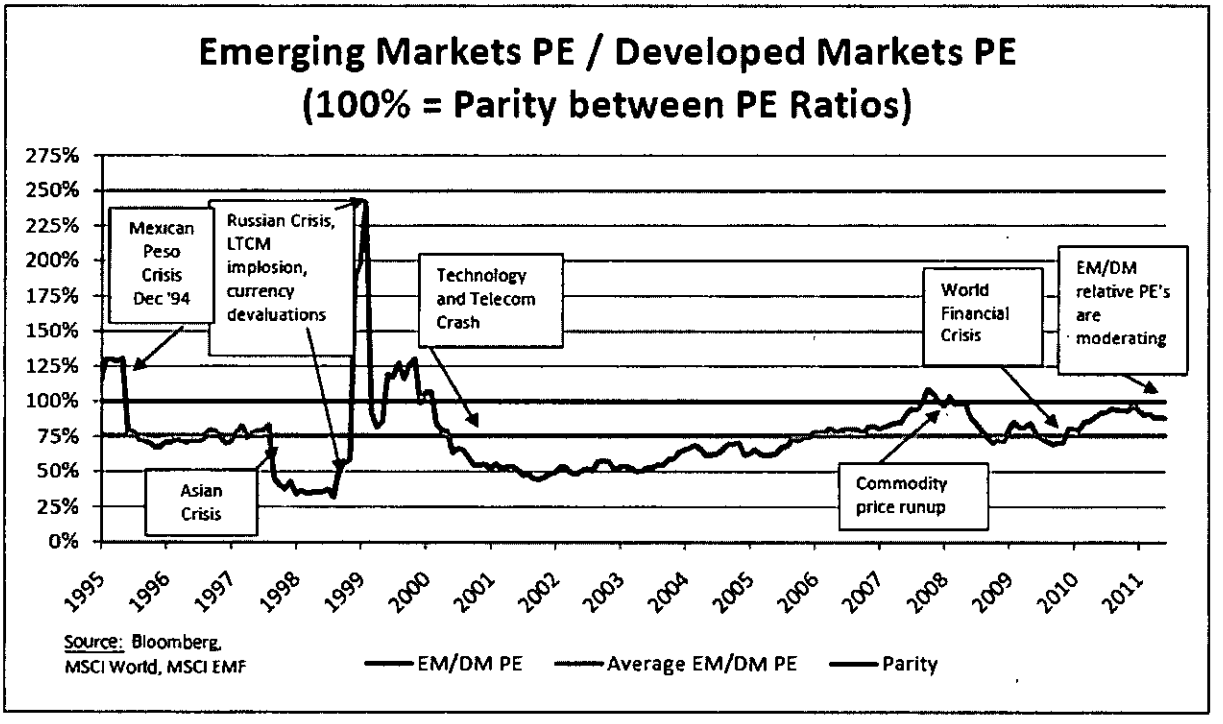
Developed Public Equity Markets



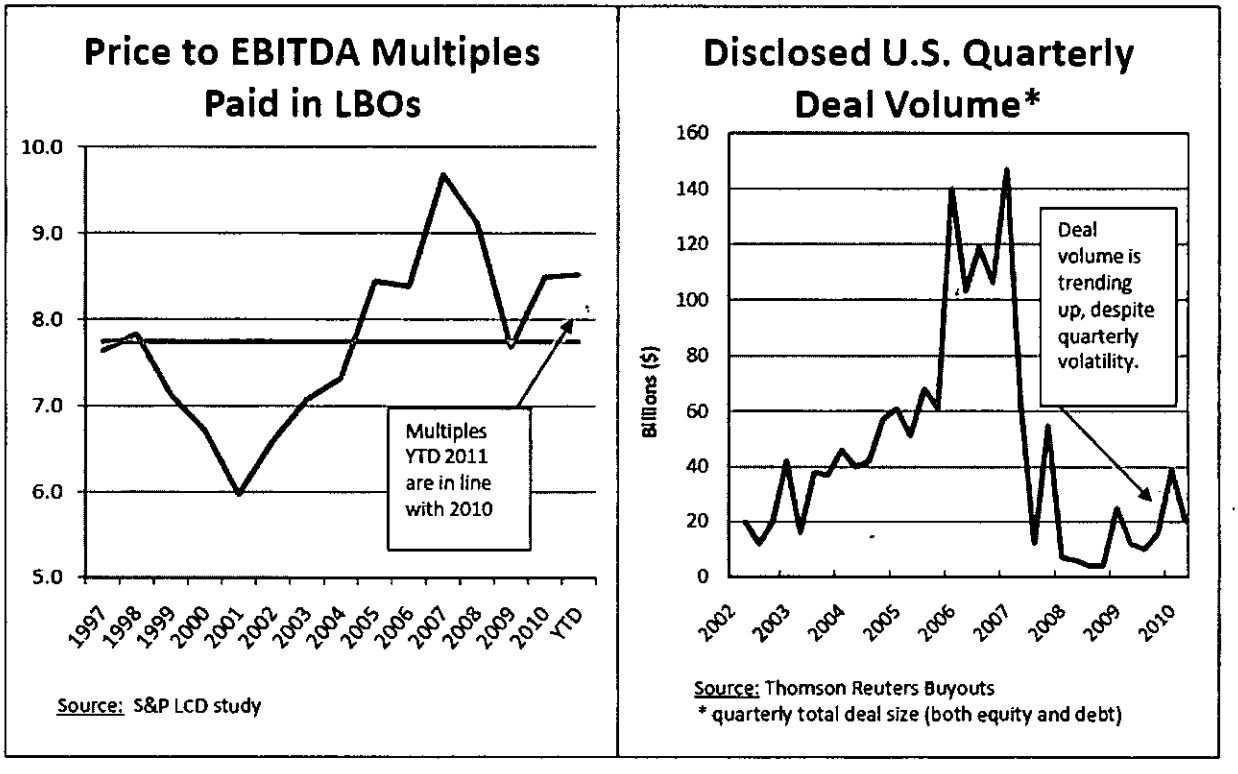
(Please note the different time scales)



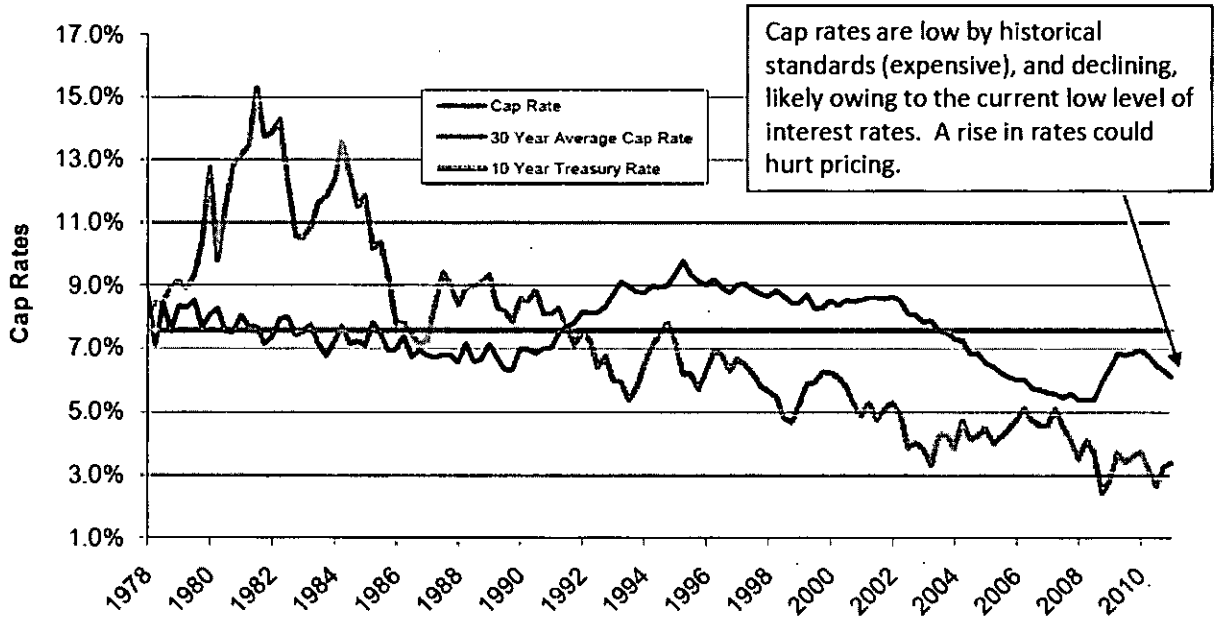
Emerging Market Public Equity Markets



US Private Equity



Current Value Cap Rates[1]

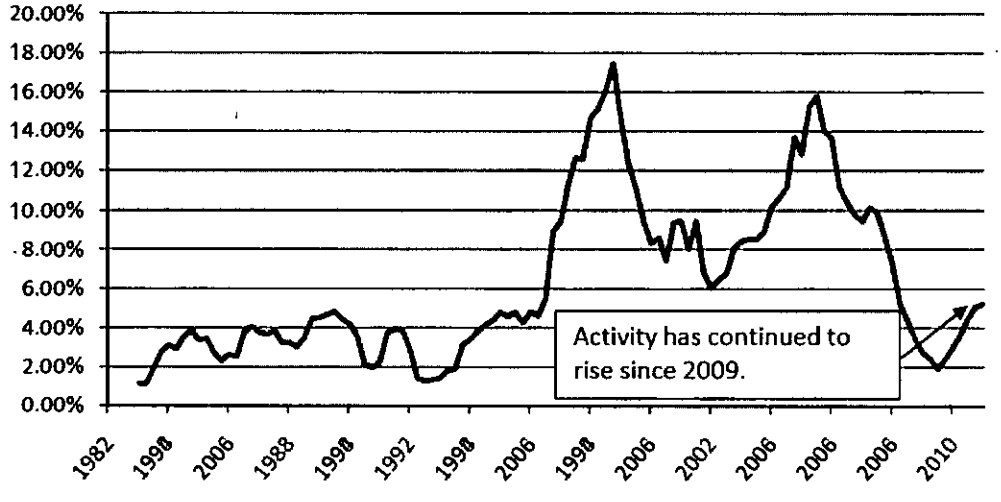


Source: NCREIF

[1]A cap rate is the current annual income of the property divided by an estimate of the current value of the property. It is the current yield of the property. Low cap rates indicate high valuations.

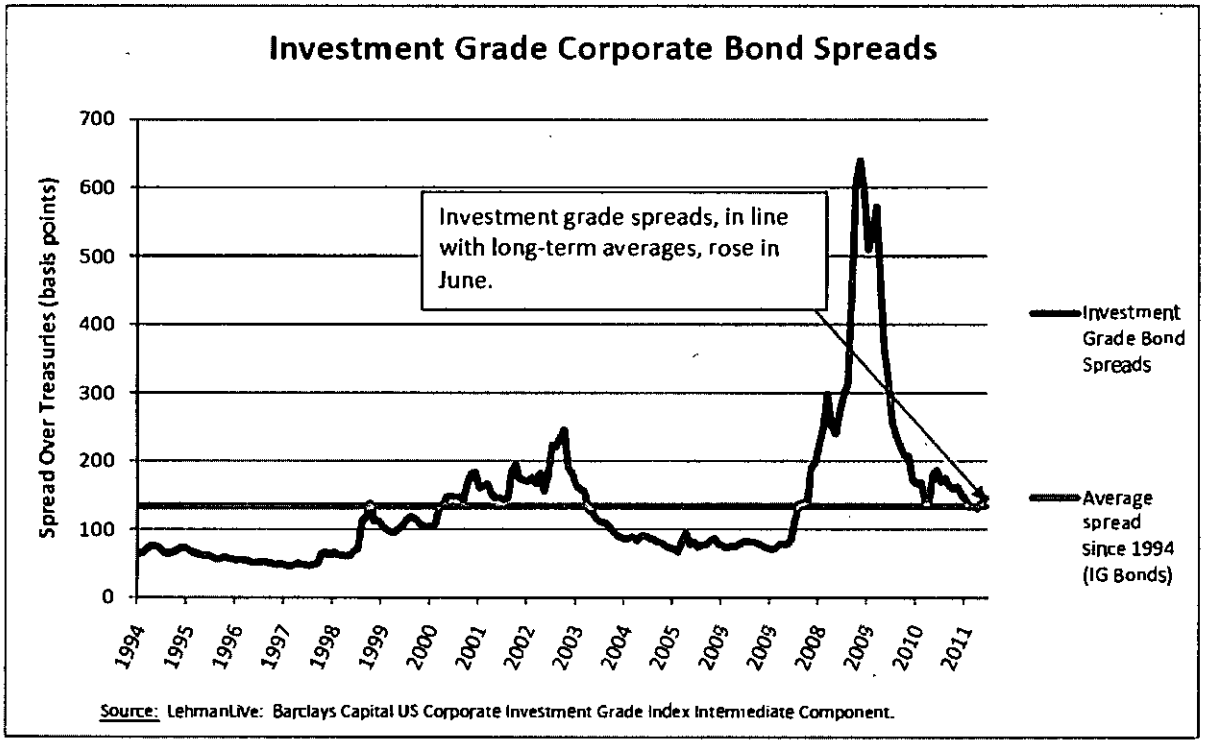
Quarterly Data, Updated to Mar 31st

Transactions as a % of Market Value Trailing-Four Quarters (a measure of property turnover activity)

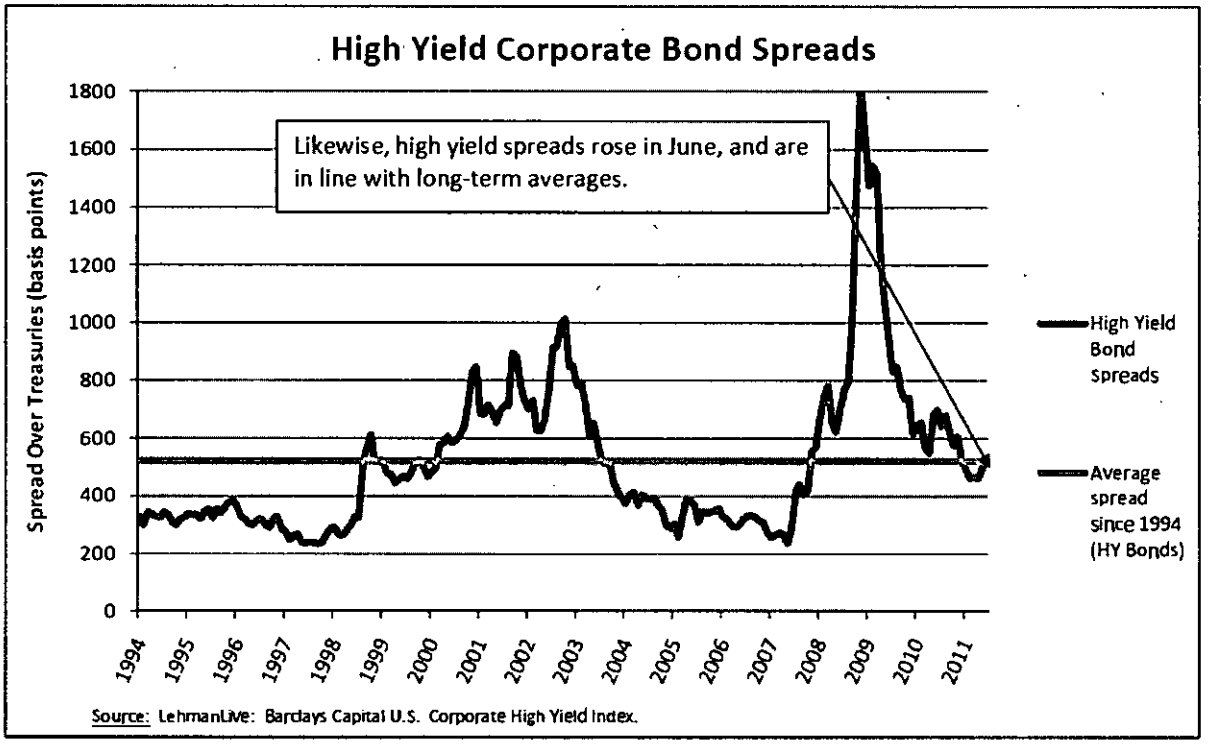


Source: NCREIF, PCA calculation

Credit Markets US Fixed Income

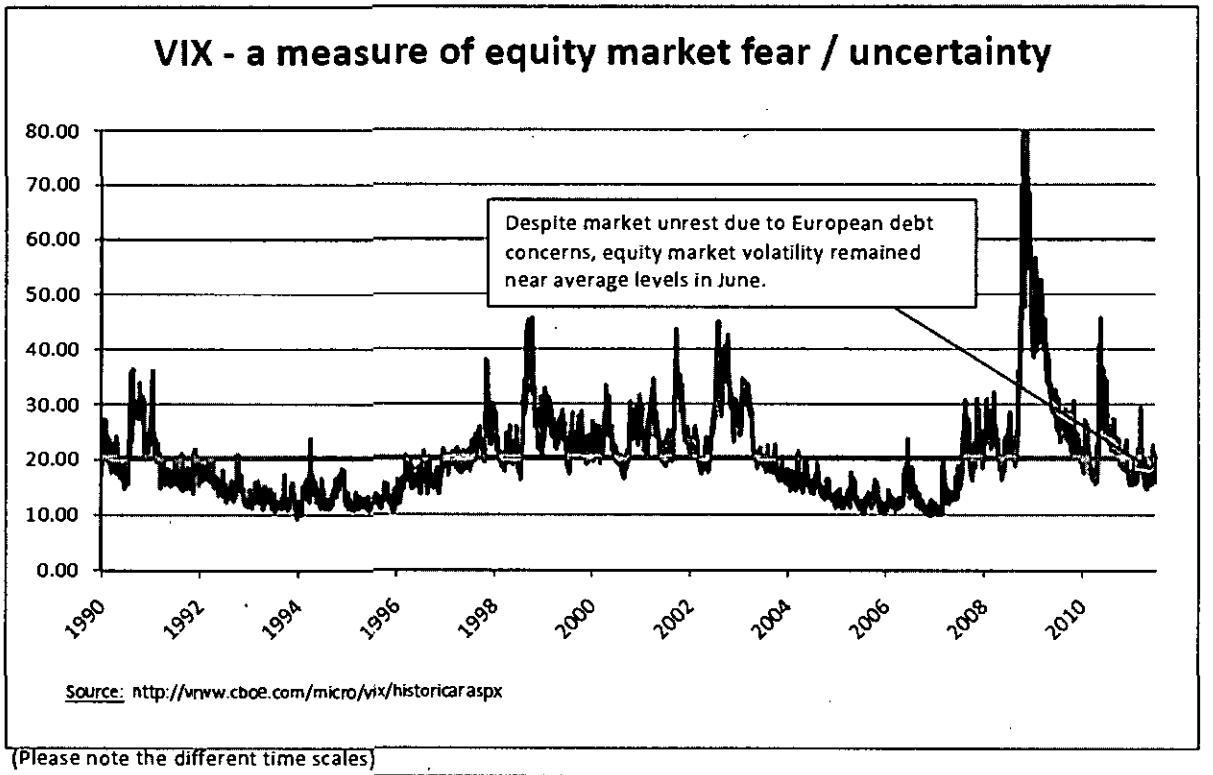


Source: LehmanLive: Barclays Capital US Corporate Investment Grade Index Intermediate Component.

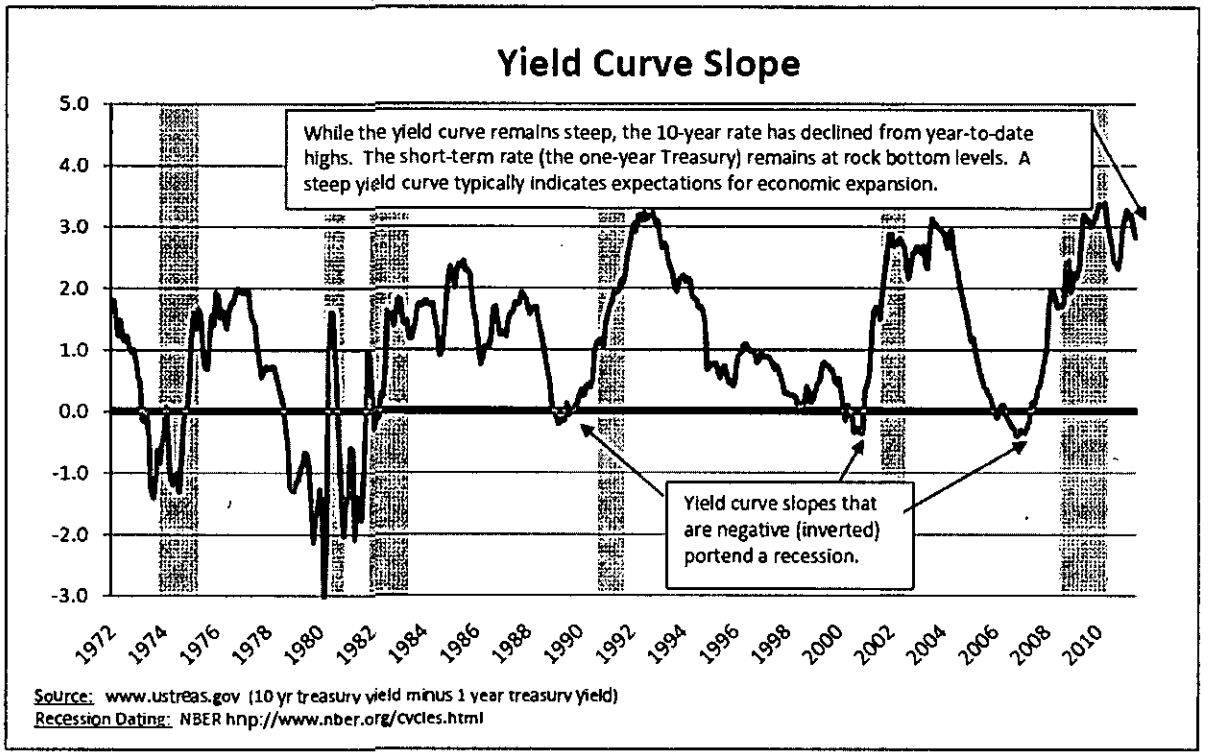


Source: LehmanLive: Barclays Capital U.S. Corporate High Yield Index.

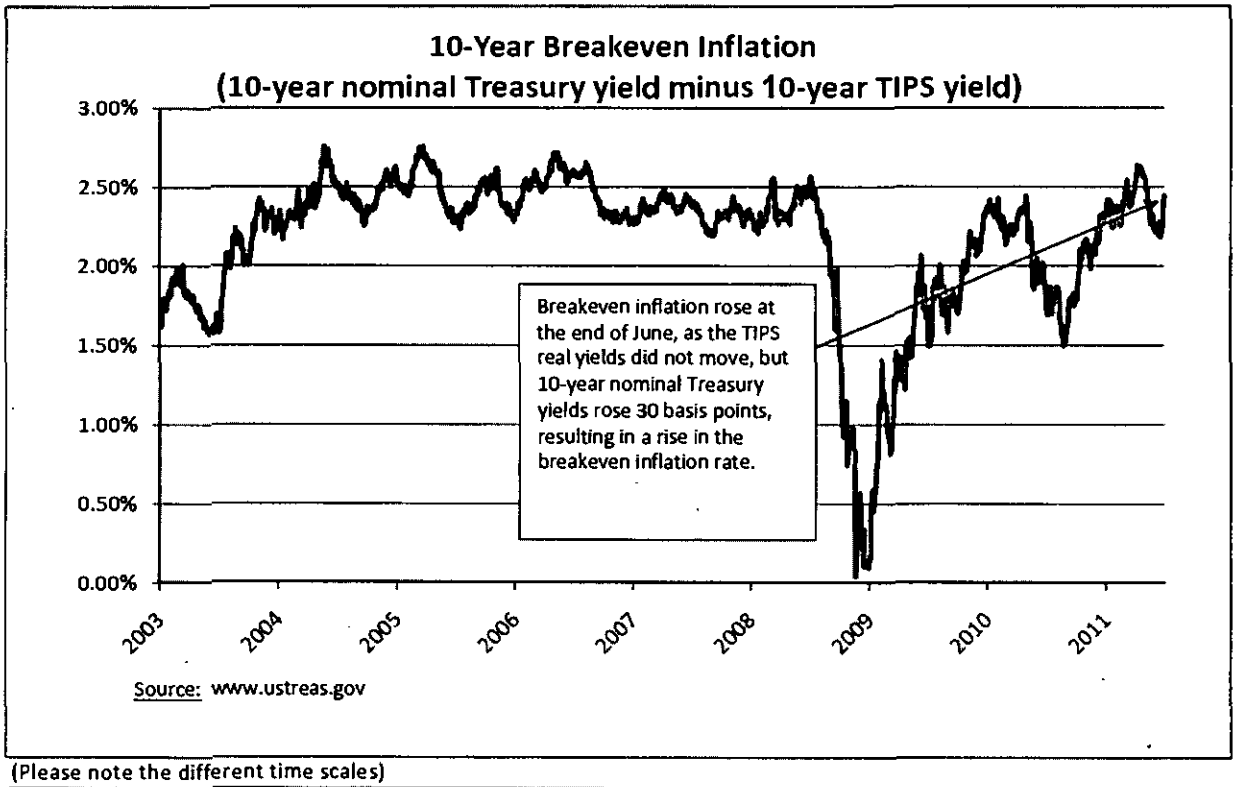
Other Market Metrics



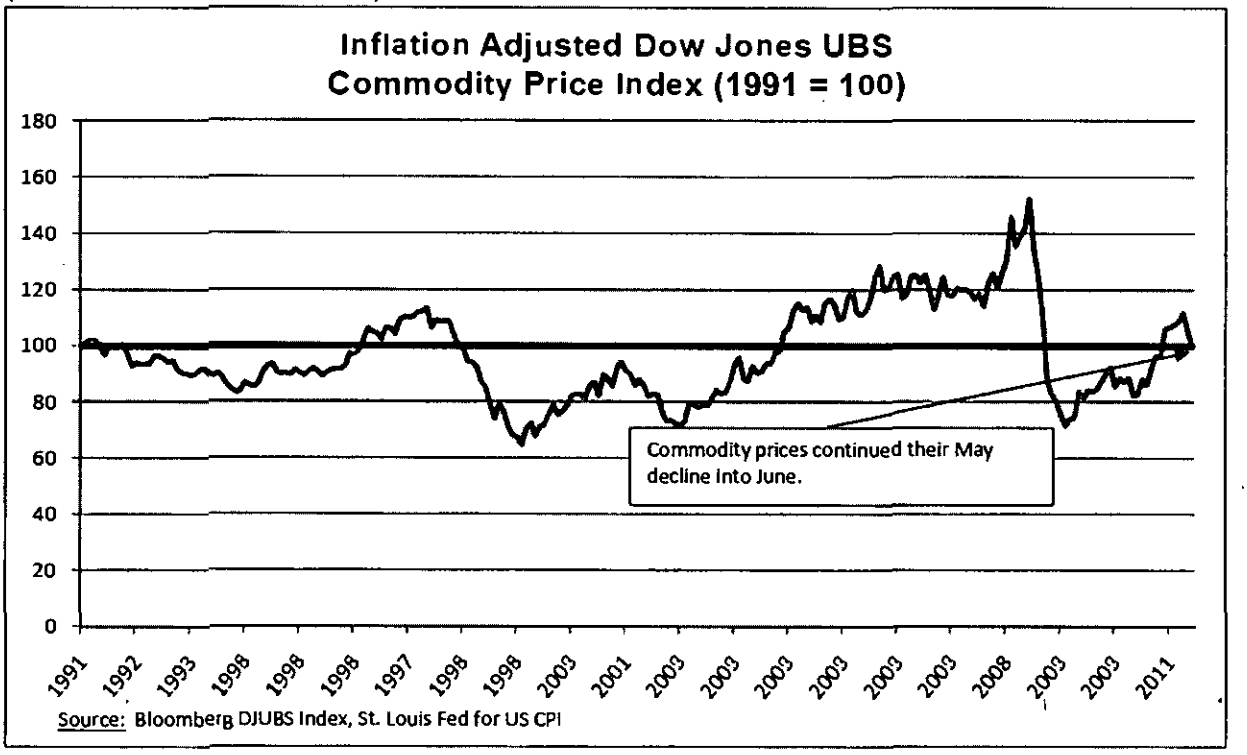
(Please note the different time scales)



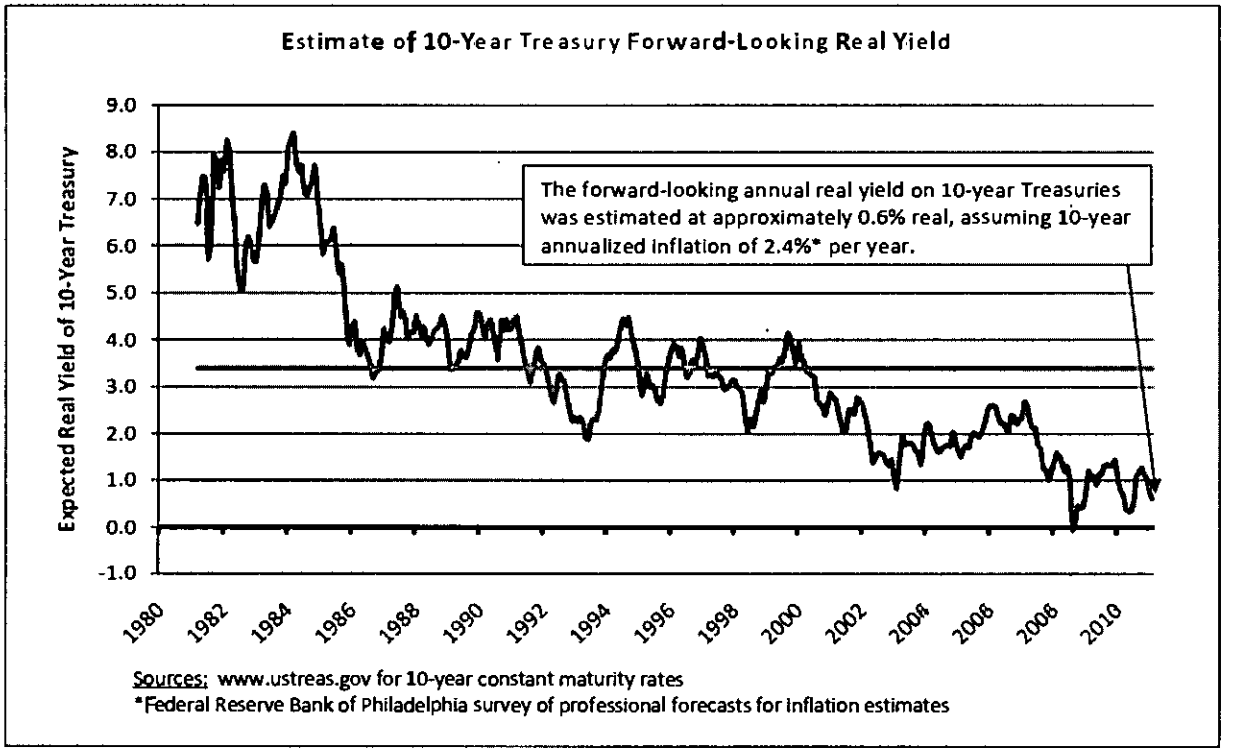
Measures of Inflation Expectations



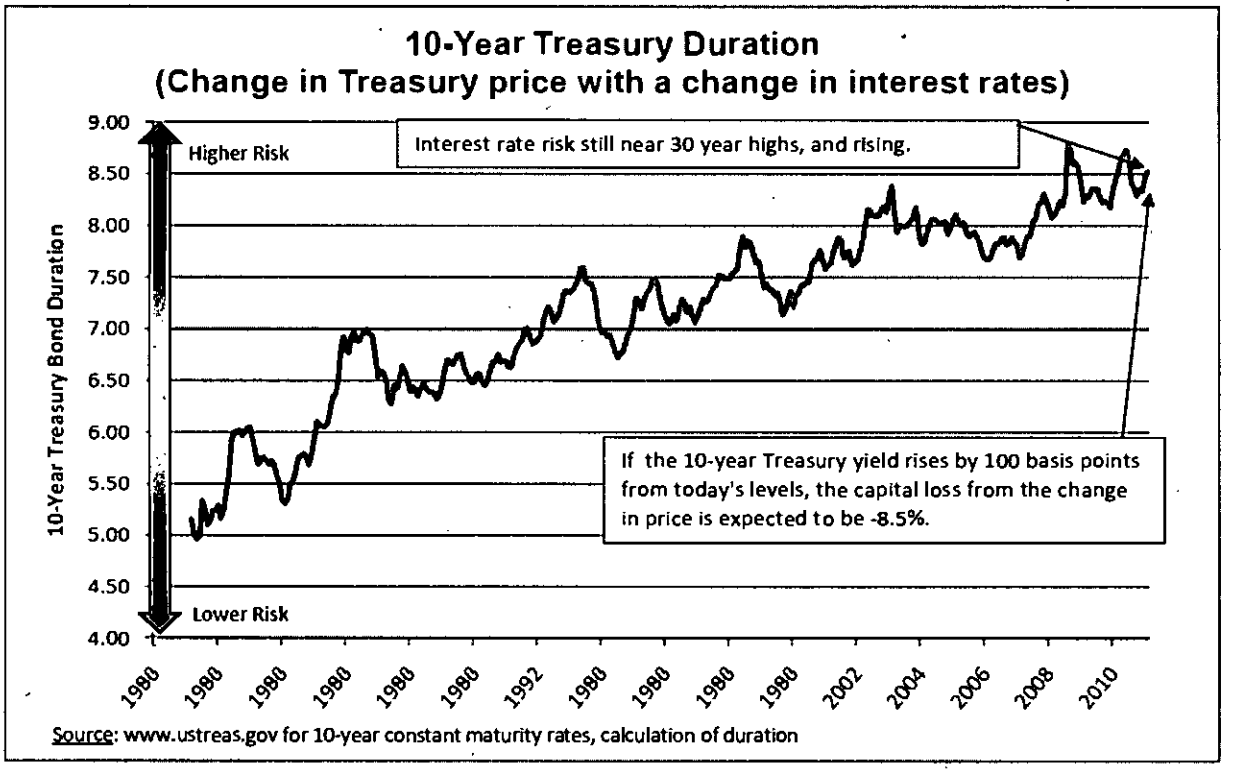
(Please note the different time scales)



Measures of U.S. Treasury Interest Rate Risk



Sources: www.ustreas.gov for 10-year constant maturity rates
*Federal Reserve Bank of Philadelphia survey of professional forecasts for inflation estimates



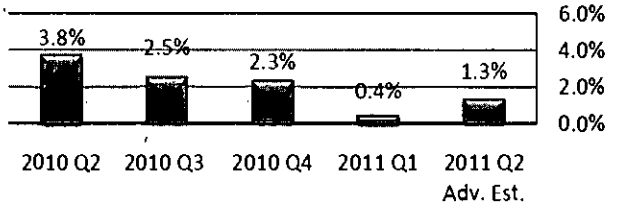
Source: www.ustreas.gov for 10-year constant maturity rates, calculation of duration

Overview: Global equity markets took a pause during the second quarter of 2011, with investors seeking the relative safe havens of Treasuries and investment grade corporate bonds. Markets were mired by a brief surge in energy prices, monetary tightening in emerging markets, and Japan's slow recovery from the earthquake. Both the U.S. and Europe continued to struggle with national budget deficits, and a previously benign inflationary environment has turned decidedly less so, most notably in emerging market economies. Despite these headwinds, global corporate earnings have remained strong and have provided some footing for equity markets. Post quarter end, volatility spiked across risk assets and across regions.

Economic Growth

- The "advance" estimate of real GDP grew at an annualized rate of 1.3 percent in the second quarter of 2011, rising from 0.4 percent (revised) in the first quarter.
- The rise in GDP growth was attributed to weaker imports and increases in government spending and business investment.
- A slowdown in consumer spending partially offset these contributions.

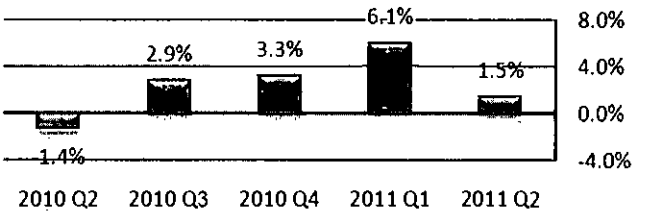
Annualized Quarterly GDP Growth



Inflation

- The Consumer Price Index for All Urban Consumers (CPI-U) increased by 1.5 percent in the quarter on an annualized basis, after seasonal adjustment.
- Core CPI-U increased 2.9 percent for the quarter, on an annualized basis.
- Over the last 12 months, CPI-U increased 3.6 percent before seasonal adjustment.

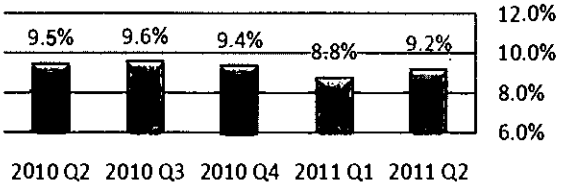
CPI-U After Seasonal Adjustment



Unemployment

- The U.S. economy gained 316,000 jobs in the quarter.
- The official unemployment rate rose from 8.8 to 9.2 percent in June.
- The majority of jobs gained continued in professional and business services, health care, manufacturing and mining.

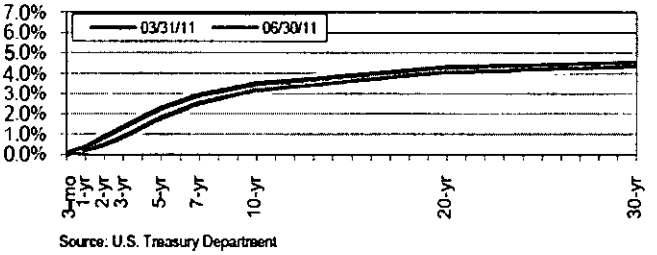
Unemployment Rate



Interest Rates & U.S. Dollar

- U.S. Treasury yields fell across the entire maturity spectrum during the quarter.
- The Federal Reserve has maintained the federal funds rate between 0.00% and 0.25% since December 2008.
- The U.S. dollar depreciated against the Euro, the Yen, and the Sterling by (2.4%), (3.1%), and (0.2%), respectively.
- Subsequent to quarter end, rates plunged to near historic levels.

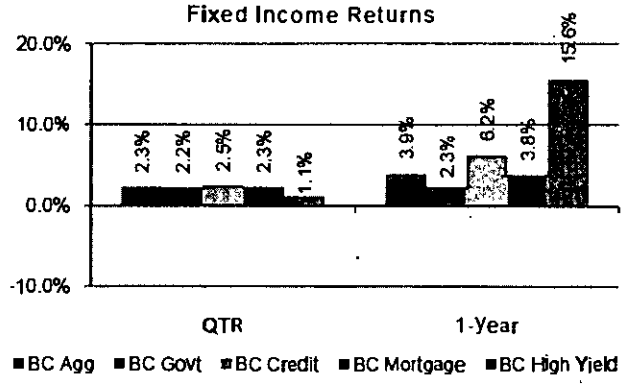
Treasury Yield Curve Changes



Source: U.S. Treasury Department

Fixed Income

- The bond markets outperformed the equity markets during the quarter as weak macroeconomic data, unstable commodity prices, and debt crises home and abroad continued to shake investor confidence, thus contributing to the "flight to quality."
- The Federal Reserve indicated at its June 22nd meeting that the second round of quantitative easing ("QE2") would end this month. The Committee also kept the federal funds rate at near 0%, and suggested the rates could stay exceptionally low for significantly longer depending on the economy.

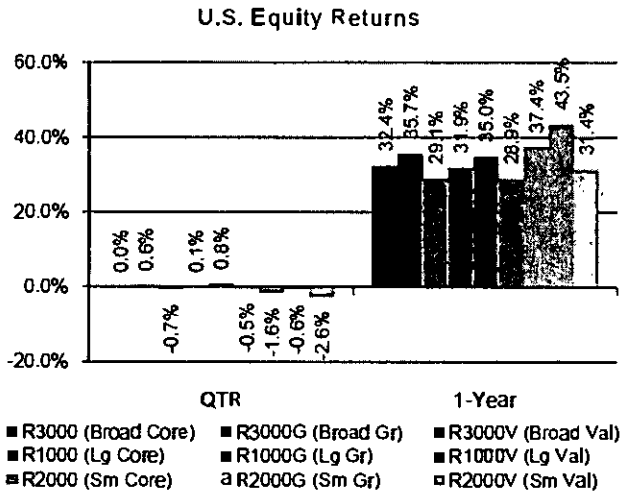


U.S. Fixed Income Sector Performance (BC Aggregate Index)			
Sector	Weight	QTR	1 Year
Governments*	36.8%	2.2%	2.3%
Agencies	7.6%	1.4%	2.5%
MBS	33.3%	2.3%	3.8%
ABS	0.3%	1.8%	3.4%
CMBS	2.3%	1.6%	11.4%
Inv. Grade Credit	19.8%	2.5%	6.2%

*U.S. Treasuries and Government Related

U.S. Equities

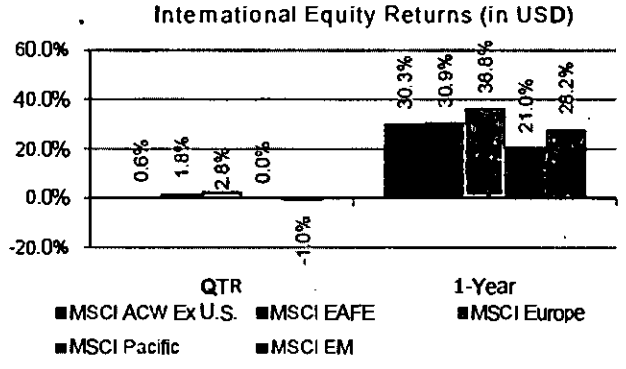
- The U.S. stock market generated mostly flat returns during the quarter. Despite stellar performance for all equity indices during the trailing 1-year period, and another quarter of strong corporate earnings, the U.S. equity market was weighed down by global macroeconomic events. In addition, unemployment data and the housing market remain stubbornly weak. Subsequent to quarter end, stocks sold off aggressively, eliminating year-to-date gains.
- Growth indices trumped value, while large stocks made a comeback over small stocks during the quarter.
- Within sectors, Cyclicals, Technology and Financials lost ground to Health Care, Utilities, and Consumer sectors during the quarter.



U.S. Equity Sector Performance (Russell 3000 Index)			
Sector	Weight	QTR	1 Year
Health Care	11.7%	6.9%	30.2%
Consumer Staples	9.0%	5.6%	28.3%
Utilities	3.5%	5.2%	25.3%
Consumer Disc	11.7%	3.3%	41.7%
Telecom Svc	2.8%	2.4%	37.5%
Industrials	11.8%	-1.3%	38.7%
Information Tech	17.8%	-1.3%	28.9%
Materials	4.5%	-1.4%	47.1%
Financials	15.9%	-5.0%	15.2%
Energy	11.6%	-5.1%	53.4%

International Equities

- The international developed markets proved to be resilient, despite continued debt issues within its member countries. Greece avoided credit default by passing an austerity package on June 30th. Subsequent to quarter end, the international equity markets have sold off, erasing year-to-date gains.
- Emerging markets underperformed developed markets during the quarter as valuations were dampened by inflationary worries and monetary tightening by central banks.



International Equity Region Performance (in USD) (MSCI ACW Index ex U.S.)			
Sector	Weight	QTR	1 Year
United Kingdom	14.5%	0.7%	29.7%
Europe Ex. UK	30.6%	0.8%	33.2%
Japan	13.7%	0.1%	10.8%
Pacific Ex. Japan	9.0%	-1.2%	30.6%
Canada	8.0%	-5.2%	27.8%
Emerging Markets	23.7%	-1.0%	28.2%

Market Summary – Long-term Performance*

Indexes	1 Year	3 Year	5 Year	10 Year	20 Year
Global Equity					
MSCI All Country World	30.8%	1.5%	3.7%	5.3%	7.7%
Domestic Equity					
S&P 500	30.7%	3.3%	2.9%	2.7%	8.7%
Russell 3000	32.4%	4.0%	3.4%	3.4%	9.0%
Russell 3000 Growth	35.7%	5.3%	5.4%	2.4%	7.8%
Russell 3000 Value	29.1%	2.7%	1.2%	4.2%	9.8%
Russell 1000	31.9%	3.7%	3.3%	3.2%	9.0%
Russell 1000 Growth	35.0%	5.0%	5.3%	2.2%	7.8%
Russell 1000 Value	28.9%	2.3%	1.2%	4.0%	9.7%
Russell 2000	37.4%	7.8%	4.1%	6.3%	9.8%
Russell 2000 Growth	43.5%	8.4%	5.8%	4.6%	7.4%
Russell 2000 Value	31.4%	7.1%	2.2%	7.5%	11.7%
International Equity					
MSCI All Country World ex US	30.3%	0.1%	4.1%	7.9%	7.2%
MSCI EAFE	30.9%	-1.3%	2.0%	6.1%	6.4%
MSCI Pacific	21.0%	-0.8%	0.7%	4.9%	2.7%
MSCI Europe	36.8%	-1.4%	2.6%	6.7%	9.3%
MSCI EM (Emerging Markets)	28.2%	4.5%	11.8%	16.5%	10.5%
Fixed Income					
BC Aggregate Bond	3.9%	6.5%	6.5%	5.7%	6.8%
BC Government	2.3%	5.1%	6.1%	5.4%	6.6%
BC Credit Bond	6.2%	8.2%	7.0%	6.3%	7.3%
BC Mortgage Backed Securities	3.8%	6.9%	7.0%	5.8%	6.7%
BC High Yield Corporate Bond	15.6%	12.7%	9.3%	9.0%	8.9%
Real Estate					
NCREIF (Private RE)	16.7%	-2.6%	3.4%	7.6%	7.4%
NAREIT (Public RE)	32.9%	5.8%	1.9%	10.1%	10.8%
Commodity Index					
DJ-UBS Commodity	25.9%	-11.9%	-0.1%	6.6%	NA

* Performance is annualised for periods greater than one year.

OPFRS PORTFOLIO PERFORMANCE

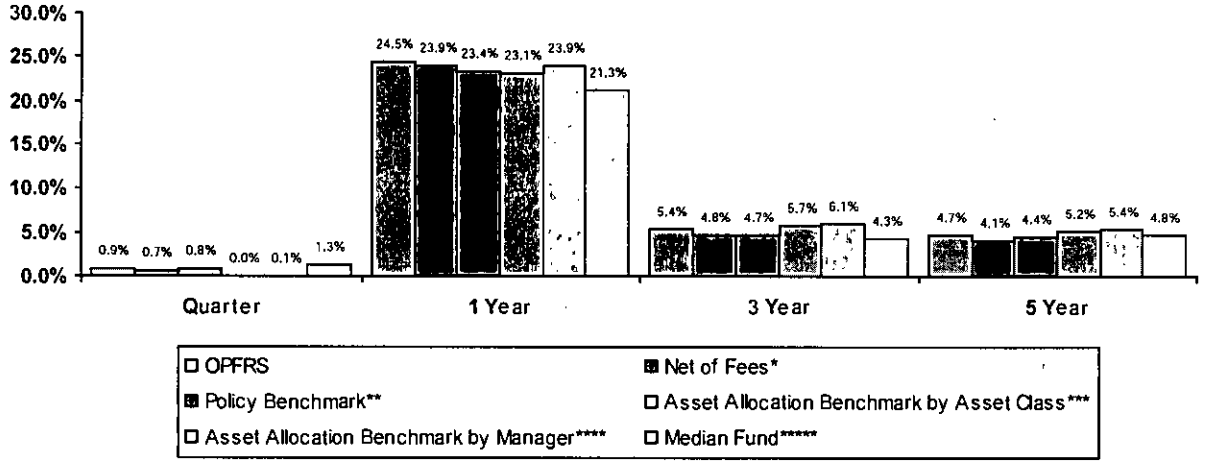
This section includes an overview of the performance of the OPFRS investment portfolio, as well as a detailed analysis of asset classes and specific mandates.

Portfolio Performance Overview

During the latest quarter ending June 30, 2011, the OPFRS Total Portfolio generated a return of 0.9%, gross of fees, outperforming its benchmark target. The Plan's U.S. Equity, Fixed Income and International Equity asset classes exceeded their respective benchmarks for the quarter.

The Total Portfolio outperformed its benchmark and the Median Fund over the latest 1-, 3-, and 5-year time periods, gross of fees. Relative performance with respect to the Median Fund can be largely attributed to differences in asset allocation.

Periods Ending June 30, 2011 (annualized)

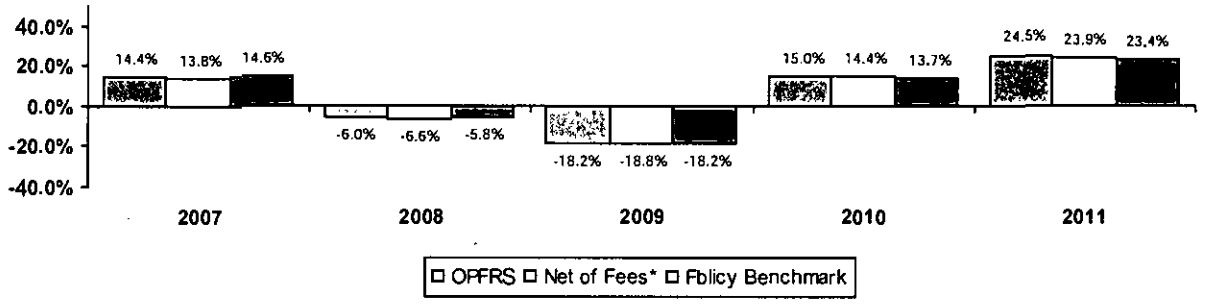


---

* Net of fee returns are estimated based on OPFRS manager fee schedule.
** The Portfolio Benchmark consists of 53% Russell 3000, 17% MSCI ACWI ex U.S., and 30% BC Universal.
*** Asset Allocation Benchmark by Asset Class is calculated using actual weightings of the broad asset classes.
**** Asset Allocation Benchmark by Manager consists of weighted average return of individual manager benchmarks, based on managers' actual allocations.
***** Median Fund is the Mellon Total Public Funds Universe.

Absolute performance results have been positive in three of the last five 12-month periods ending June 30. The Plan matched or outperformed its policy benchmark in three of the periods, gross of fees.

12-Month Performance – Periods Ending June 30



*Net of fee returns are estimated based on OPFRS manager fee schedule

Portfolio Valuation

The OPFRS portfolio had an aggregate value of $290.9 million as of June 30, 2011. During the latest quarter, the portfolio decreased by ($13.1) million. Over the latest year, the portfolio decreased by ($3.6) million, including minus ($72.0) million in benefit payment.

Investment Portfolio Valuation as of June 30, 2011*

	June 30, 2011	March 31, 2011	Quarterly Change	Percentage Change	June 30, 2010	Annual Change	Percentage Change
OPFRS	$290.9	$304.0	($13.1)	(4.3%)	$294.5	($3.6)	(1.2%)

*The calculations listed above represent change in dollar value and not investment returns.

Actual vs. Target Allocations

With respect to policy targets, the portfolio ended the latest quarter ***overweight Domestic Equity and Cash while underweight Fixed income and International Equity.*** Target weightings reflect the Plan's current asset allocation (effective 10/1/2007).

As of June 30, 2011

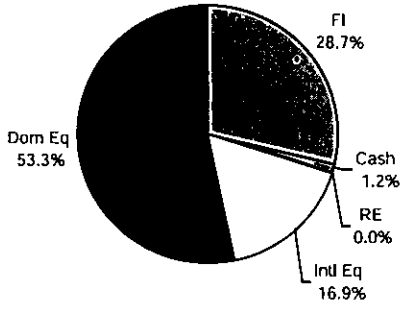
Segment	Actual $(000)	Actual %*	Target %	Variance
Total Investment Portfolio	290,873	100.0%	100.0%	---
Domestic Equity	155,022	53.3%	53.0%	0.3%
Large Cap Equity	111,917	38.5%	38.5%	0.0%
Mid Cap Equity	27,346	9.4%	9.3%	0.1%
Small Cap Equity	15,759	5.4%	5.4%	0.0%
International Equity	49,093	16.9%	17.0%	-0.1%
Total Equity	204,115	70.2%	70.0%	0.2%
Fixed Income	83,348	28.7%	30.0%	-1.3%
Real Estate	38	0.0%	0.0%	0.0%
Cash	3,372	1.2%	0.0%	1.2%

* In aggregate, asset class allocations equal 100% of total investment portfolio. Differences due to rounding.

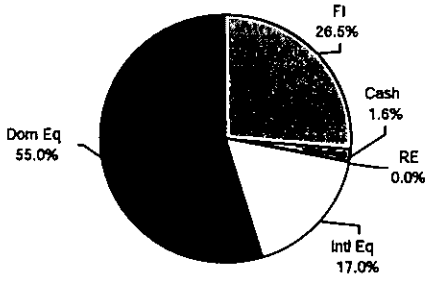
During the latest quarter, the actual weighting of Domestic Equity, International Equity and Cash decreased (1.7%), (0.1%) and (0.4%), respectively, while Fixed Income increased by 2.2%.

Investment Portfolio Actual Asset Allocation Comparison

June 30, 2011



March 31, 2011



Asset Class Performance

The Domestic Equity asset class outperformed the policy benchmark by 20 basis points over the current quarter, and outperformed by 2.5% over the latest 1-year period. Over the latest 3-year period the asset class outperformed by 0.6% and by 0.1% over the 5-year period.

The International Equity portfolio outperformed its policy benchmark by 0.3% during the quarter. Over the latest 1-year period, the International Equity portfolio outperformed its policy benchmark by 0.5% while underperforming by (1.2%), over the 3-year period. Over the latest 5-year period, the International Equity portfolio underperformed the policy benchmark by (0.8%).

The Fixed Income asset class outperformed its policy benchmark by 10 basis points during the quarter while trailing by (0.6%) for the 1-year period. The Fixed Income portfolio has outperformed over the 3- and 5-year time periods by 0.9% and 0.4%, respectively.

Periods ending June 30, 2011

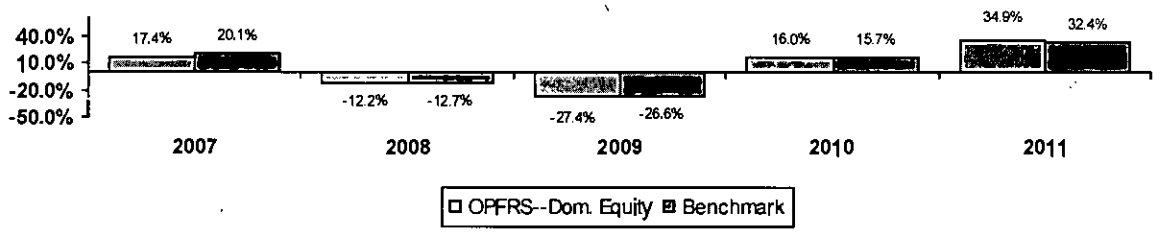
Asset Class	Quarter	1 Year	3 Year	5 Year
Total Investment Portfolio	0.9	24.5	5.4	4.7
Policy Benchmark[1]	0.8	23.4	4.7	4.4
Public Equity	0.3	33.9	3.3	3.7
Policy Benchmark[2]	0.1	31.9	3.1	3.6
Domestic Equity	0.2	34.9	4.6	3.5
Blended Benchmark[4]	0.0	32.4	4.0	3.4
Large Cap	0.5	32.2	3.7	2.8
Russell 1000	0.1	31.9	3.7	3.3
Mid Cap	-0.6	37.7	6.0	6.4
Russell Midcap	0.4	38.5	6.5	5.3
Small Cap	-0.6	47.4	7.4	3.1
Russell 2000	-1.6	37.4	7.8	4.1
International Equity	0.9	30.8	-1.1	3.3
Blended Benchmark[5]	0.6	30.3	0.1	4.1
Fixed Income	2.3	4.2	7.6	7.0
BC Universal (blend)[6]	2.2	4.8	6.7	6.6

[1] The Policy Benchmark consists of 53% Russell 3000, 17% MSCI ACWI ex U.S., and 30% BC Universal.
[2] The Public Equity benchmark consists of 76% Russell 3000 and 24% MSCI ACWI ex U.S.
[4] Domestic Equity Benchmark consists of S&P 500 thru 3/31/98, 29% R1000, 57% R1000V, 14% RMC from 4/1/98 - 12/31/04, and Russell 3000 from 1/1/05 to the present.
[5] International Equity Benchmark consists of MSCI EAFE thru 12/31/04, and MSCI ACWI x U.S. thereafter.
[6] Fixed Income Benchmark consists of BC Aggregate prior to 4/1/06, and BC Universal thereafter.

Asset Class Performance

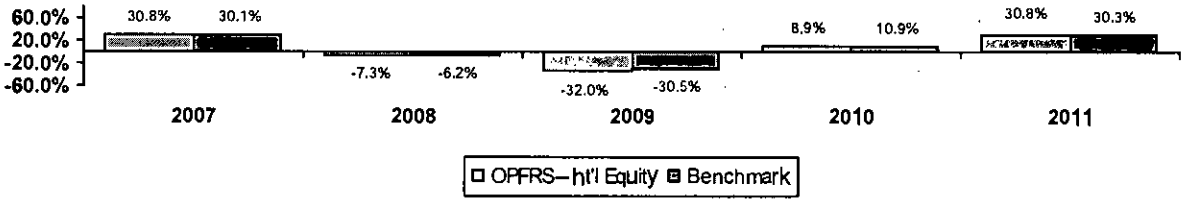
The Domestic Equity portfolio outperformed the policy benchmark in three of the five latest 12-month periods. The Plan finished the latest 12-month ending June 30, 2011 with a return of 34.9%, outperforming the policy benchmark by 2.5%.

Domestic Equity 12-Month Performance – Periods Ending June 30, 2011



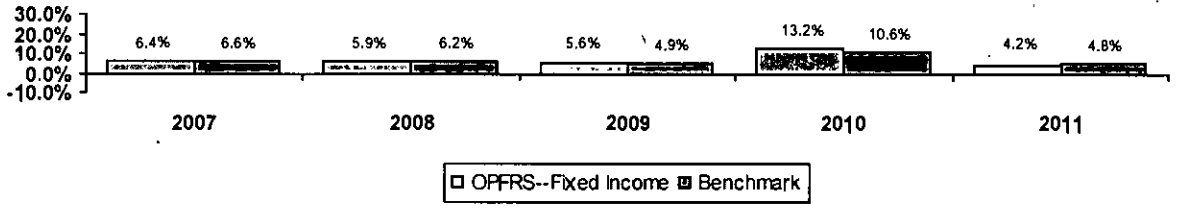
The International Equity portfolio outperformed the policy benchmark in two of the five latest 12-month periods. The Plan finished the latest 12-month period ending June 30, 2011 with a return of 30.8%, outperforming the policy benchmark by 0.5%.

International Equity 12-Month Performance – Periods Ending June 30, 2011



The Fixed Income portfolio outperformed the policy benchmark in two of the last five 12-month periods. The Plan finished the latest 12-month period ending June 30, 2011 with a return of 4.2%, underperforming the policy benchmark by (60) basis points.

Fixed Income 12-Month Performance – Periods Ending June 30, 2011



Manager Performance

Domestic Equity – Periods ending June 30, 2011

Manager	Mkt Value ($000)	Asset Class	Quarter	1 YR	3 YR	5 YR	Since Inception*	Inception Date**
Delaware	15,739	Large Cap Growth	1.7	36.3	6.1	---	4.6	9/2006
Russell 1000 Growth Index	---	*Large Cap Growth*	0.8	35.0	5.0	---	4.8	---
Northern Trust R1000 Index	69,263	Large Cap Core	0.1	31.8	---	---	22.7	5/2010
Russell 1000 Index	---	*Large Cap Core*	0.1	31.9	---	---	22.5	---
Barrow Hanley	25,915	Large Cap Value	0.9	31.0	4.1	2.4	2.7	9/2005
Russell 1000 Value Index	---	*Large Cap Value*	-0.5	28.9	2.3	1.2	2.3	---
Earnest	27,346	Mid Cap Core	-0.6	37.7	6.0	6.4	5.5	3/2006
Russell MidCap	---	*Mid Cap Core*	0.4	38.5	6.5	5.3	4.9	---
NWQ	7,767	Small Cap Value	-2.1	40.3	4.0	0.8	1.4	1/2006
Russell 2000 Value Index	---	*Small Cap Value*	-2.6	31.4	7.1	2.2	2.4	---
Lord Abbett	7,992	Small Cap Growth	0.7	54.3	---	---	42.4	6/2010
Russell 2000 Growth Index	---	*Small Cap Growth*	-0.6	43.5	---	---	30.9	---

* Performance is calculated based on the first full month of performance since funding.
** Inception date reflects the month when portfolio received initial funding.

During the latest three-month period ending June 30, 2011, all but one of OPFRS' active domestic equity managers outperformed their respective benchmarks.

Delaware, the Plan's active large cap growth manager, ended the quarter with a 1.7% return, outperforming the Russell 1000 Growth Index's return by 90 basis points. Over the latest 1-year period, Delaware posted a 36.3% return, outperforming its benchmark by 1.3%. Over the latest 3-year period, Delaware outperformed its benchmark by 1.1%.

Barrow Hanley, OPFRS' large cap value manager, finished the quarter returning 0.9%, outperforming the Russell 1000 value Index by 1.4%. The portfolio outperformed its benchmark by 2.1% over the latest 1-year period. Over the latest 3- and 5-year periods, Barrow Hanley outperformed its benchmark by 1.8% and 1.2%, respectively.

Earnest Partners, the Plan's mid cap core manager, completed the quarter with an -0.6% return underperforming the Russell Midcap Index by (1.0%). Over the latest 1-, and 3-year periods, Earnest underperformed its benchmark by (0.8%), and (0.5%), respectively. Over the 5-year period, Earnest outperformed its benchmark by 1.1%.

NWQ, the Plan's small cap value manager, outperformed the Russell 2000 value Index by 50 basis points. Over the latest 1-year period, NWQ outperformed its benchmark by 8.9%. Over the 3- and 5-year periods, NWQ underperformed its benchmark by (3.1%) and (1.4%), respectively.

Lord Abbett, the Plan's small cap growth manager, outperformed the Russell 2000 Growth Index by 1.3% for the quarter. Over the 1-year period, Lord Abbett has outperformed by 10.8%.

international Equity – Periods ending June 30, 2011

Manager	Mkt Value ($000)	Asset Class	Quarter	1 YR	3 YR	5 YR	Since Inception*	Inception Date**
SSgA	12,184	International	1.7	30.4	-0.9	2.2	9.3	7/2002
MSCI EAFE Index	---	---	1.8	30.9	-1.3	2.0	9.3	---
Hansberger	18,192	International	-0.6	29.0	-0.5	4.4	5.3	1/2006
MSCI ACWI x US	---	---	0.6	30.3	0.1	4.1	5.6	---
Fisher	18,718	International	1.9	---	---	---	1.9	4/2011
MSCI ACWI x US	---	---	0.6	---	---	---	0.6	---

* Performance is calculated based on the first full month of performance since funding.
** Inception date reflects the month when portfolio received initial funding.

During the latest three-month period ending June 30, 2011, one of OPFRS' active International Equity managers outperformed its benchmark.

The SSgA account slightly trailed the MSCI EAFE Index with a 1.7% return during the quarter. The portfolio also performed roughly in-line with its benchmark over all other extended time periods. This performance is within expectations for a passive mandate.

Hansberger, one of OPFRS' active international equity managers, underperformed the MSCI ACWI x US Index by (1.2%) during the quarter. During the latest 1-year period, the portfolio returned 29.0% lagging its benchmark by (1.3%). During the latest 3- year period, the portfolio trailed its benchmark by (60) basis points per annum. While over the 5-year period, NWQ outperformed its benchmark by 30 basis points.

Fisher, one of OPFRS' active international equity managers, outperformed the MSCI ACWI x US Index by 1.3% during the quarter.

Fixed Income – Periods ending June 30, 2011

Manager	Mkt Value ($000)	Asset Class	Quarter	1 YR	3 YR	5 YR	Since Inception **	Inception Date ***
Reams	24,326	Core Plus	1.8	4.6	8.3	7.8	6.6	1/1998
*BC Universal Index (blend)**	---	---	2.3	4.8	6.7	6.6	5.8	---
T. Rowe Price	52,195	Core	---	---	---	---	---	5/2011
SC Aggregate Index	---	---	---	---	---	---	---	---
BC Tips (ishare)	6,827	TIPS	3.4	7.2	---	---	8.5	2/2010
BC U.S. Tips Index	---	---	3.7	7.7	---	---	8.9	---

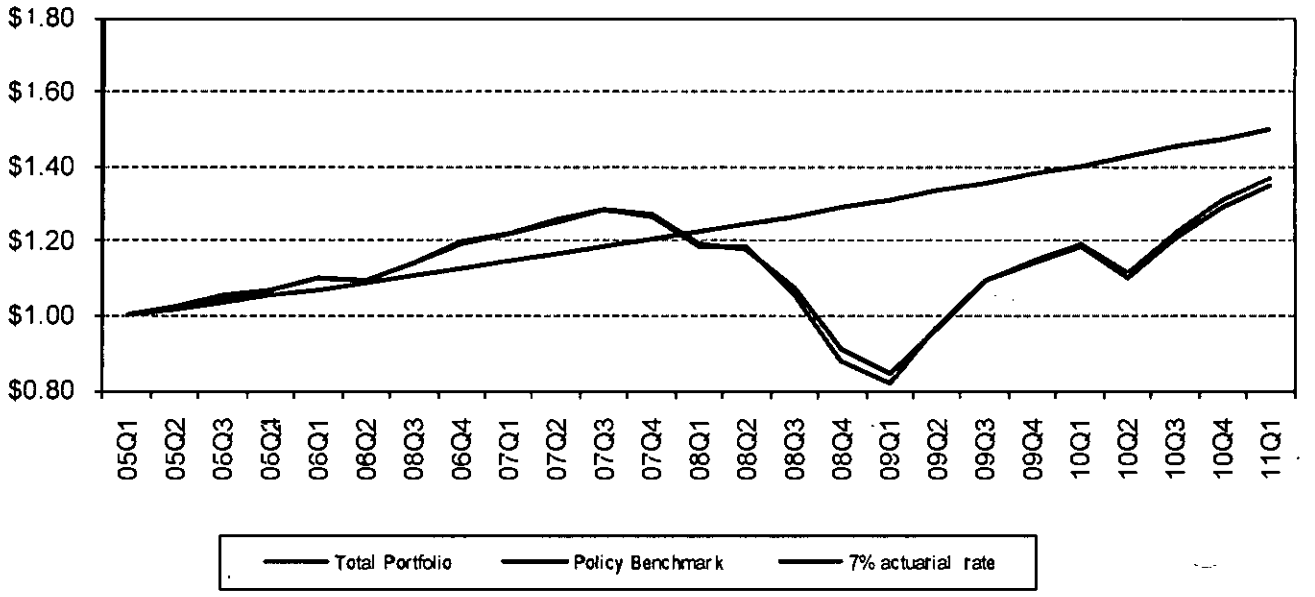
* Previously the benchmark for Reams was the BC Aggregate; this was changed to the BC Universal beginning 4/1/2006.
** Performance is calculated based on the first full month of performance since funding.
*** Inception date reflects the month when portfolio received initial funding.

During the latest three-month period ending June 30, 2011, Reams, OPFRS' active Fixed Income manager, underperformed its benchmark.

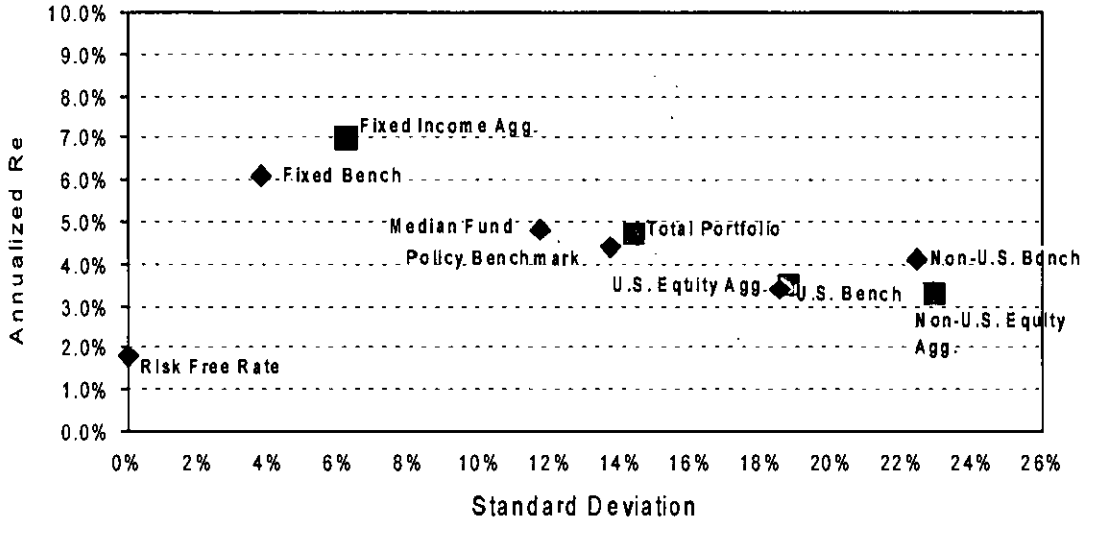
Reams, the Plan's core plus fixed income manager, produced a quarterly return of 1.8% trailing the BC Universal (blend) Index by (50) basis points. During the latest 1-year period, the portfolio underperformed its benchmark by (20) basis points. The portfolio topped its benchmark by 1.6% during the latest 3-year period, and 1.2% during the latest 5-year period, on an annualized basis.

OPFRS --- Risk/Return Analysis
Period ending June 30, 2011

Growth of a Dollar
Past 5 Years



Five-Year Annualized Risk/Return



City of Oakland Police & Fire Retirement, Asset Allocation as of 06/30/11

Manager	Style	Market Value $(000)	Target	Actual[1]	Difference
Total Plan		$290,873	100.0%	100.0%	0.0%
Public Equity		$204,115	70.0%	70.2%	0.2%
Domestic Equity		$155,022	53.0%	53.3%	0.3%
Large Cap Equity					
Northern Trust	Large Cap Core	69,263	23.9%	23.8%	0.0%
Barrow Hanley	Large Cap Value	26,915	9.3%	9.3%	0.0%
Delaware	Large Cap Growth	15,739	5.3%	5.4%	0.1%
Mid Cap Equity					
Earnest Partners	Mid Cap Core	27,346	9.3%	9.4%	0.1%
Small Cap Equity					
NWQ	Small Cap Value	7,767	2.7%	2.7%	0.0%
Lord Abbett	Small Cap Growth	7,992	2.7%	2.7%	0.1%
International Equity		$49,093	17.0%	16.9%	-0.1%
SSgA	International	12,184	4.3%	4.2%	-0.1%
Hansberger	International	18,192	6.4%	6.3%	-0.1%
Fisher	International	18,718	6.4%	6.4%	0.1%
Fixed Income		$83,348	30.0%	28.7%	-1.3%
Reams	Core Plus	24,326	10.7%	8.4%	-2.3%
T. Rowe Price	Core	52,195	16.3%	17.9%	1.6%
BC TIPS (iShares)	Inflation Linked	6,827	3.0%	2.3%	-0.7%
Real Estate		$38	—	—	—
Residential Mortgage	Real Estate	38	—	—	—
Total Cash[2]		$3,372	0.0%	1.2%	1.2%
Torrey Pines Bank	Money Market	1,100	0.0%	0.4%	0.4%

1. In aggregate, asset class allocations equal to 100% of total investment portfolio.
2. Includes cash balance with City Treasury.

Monitoring/Probation Status

As of June 30, 2011
Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern	Months Since Corrective Action	Performance^ Since Corrective Action	Date of Corrective Action*
NWQ	Heightened Monitoring	Performance	9	25.3	9/2010
Russell 2000 Value	—	—	—	19.7	—
Reams	Heightened Monitoring	Org.	9	1.7	9/2010
BC Universal (Blend)	—	—	—	1.8	—

^ Annualized performance if over one year.
* Approximate date based on when Board voted to either monitor a manager at a heightened level or place it on probation.

Investment Performance Criteria For Manager Monitoring/Probation Status

Asset Class	Short-term (rolling 12 mth periods)	Medium-term (rolling 36 mth periods)	Long-term (60 + months)
Active Domestic Equity	Fd return < bench return – 3.5%	Fd annlzd return < bench annlzd return – 1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Active International Equity	Fd return < bench return – 4.5%	Fd annlzd return < bench annlzd return – 2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive International Equity	Tracking Error > 0.50%	Tracking Error > 0.45% for 6 consecutive months	Fd annlzd return < bench annlzd return – 0.40% for 6 consecutive months
Fixed Income	Fd return < bench return – 1.5%	Fd annlzd return < bench annlzd return – 1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months

All criteria are on an annualized basis.
VRR – Value Relative Ratio – is calculated as: manager cumulative return / benchmark cumulative return.

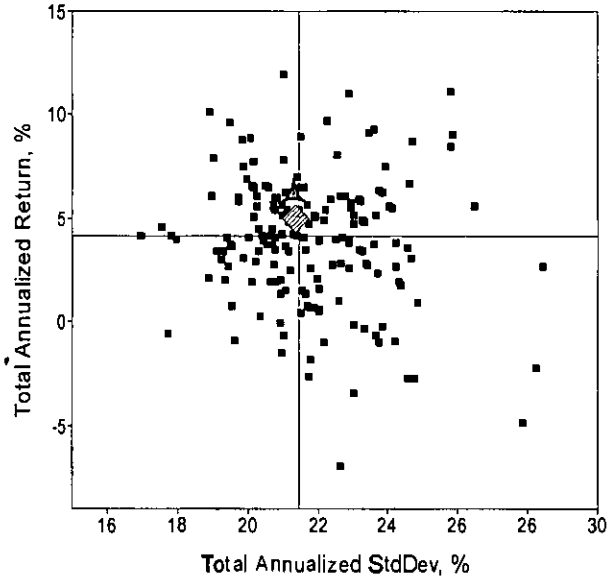
Oakland Police & Fire
Performance Summary and Universe Rankings
Period Ending June 30, 2011

Mellon Total Funds - Public Universe	Quarter	1- Year	3-Year	5-Year
Maximum	3.5	30.6	7.9	7.9
Percentile 25	1.5	23.3	5.2	5.5
Median	1.3	21.3	4.3	4.8
Percentile 75	0.9	19.8	3.3	4.2
Minimum	-0.9	0.8	0.8	1.8
Number of Portfolios	117	117	105	99
Oakland Police & Fire Total				
Return	0.9	24.5	5.4	4.7
Quartile Rank	3rd	1st	1st	3rd

Notes:
Source: Mellon Total Public Funds Universe
All performance is shown gross of fees.

Oakland Large Cap Growth Manager Comparisons as of June 30, 2011

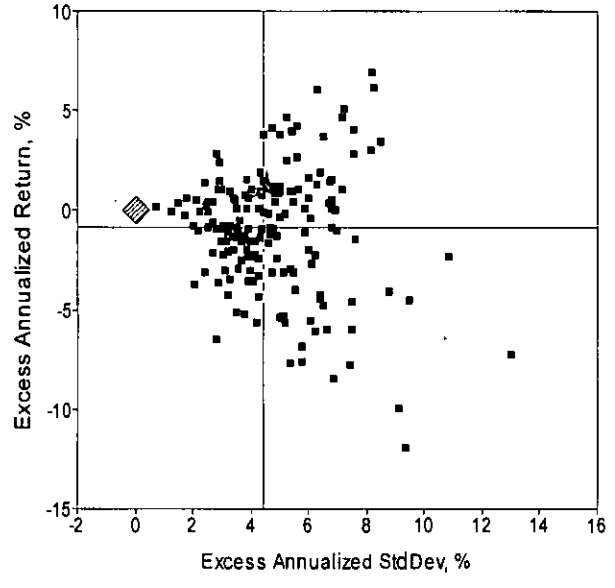
3-Year Total Risk/Return



▲ Delaware ◆ Russell 1000 Growth Index

	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Delaware	6.13	21.31	0.29
Russell 1000 Growth Index	5.01	21.34	0.23
LC Growth Universe Median	4.14	21.47	0.20

3-Year Excess Risk/Return



▲ Delaware ◆ Russell 1000 Growth Index

	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Delaware	1.12	4.53	0.25
Russell 1000 Growth Index	0.00	0.00	NA
LC Growth Universe Median	-0.88	4.44	-0.21

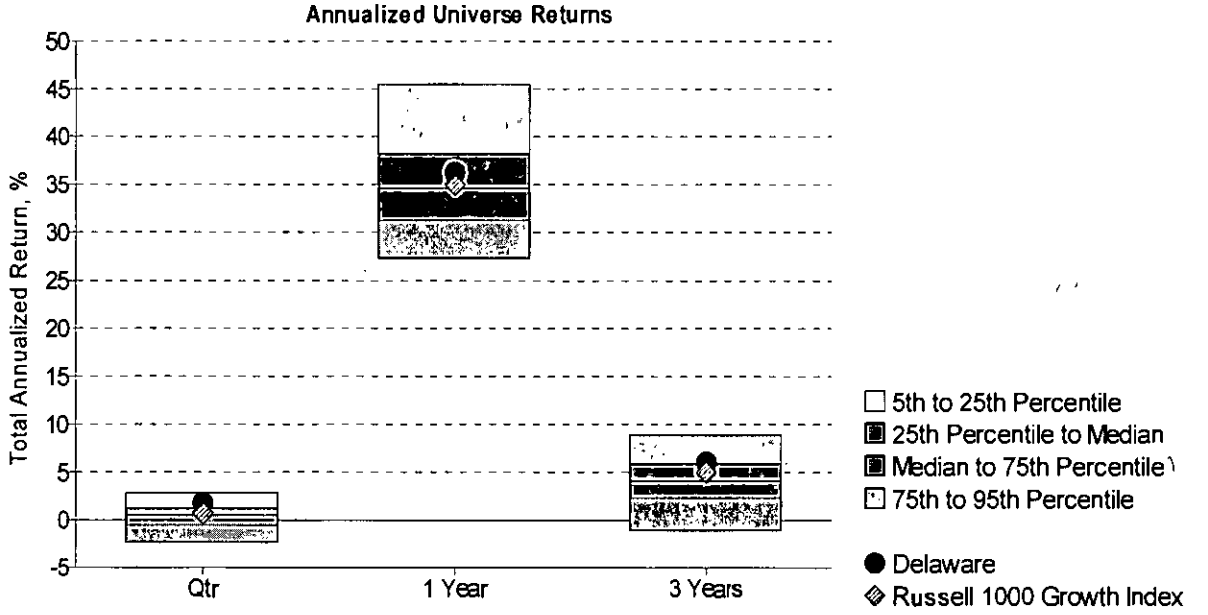
Notes:

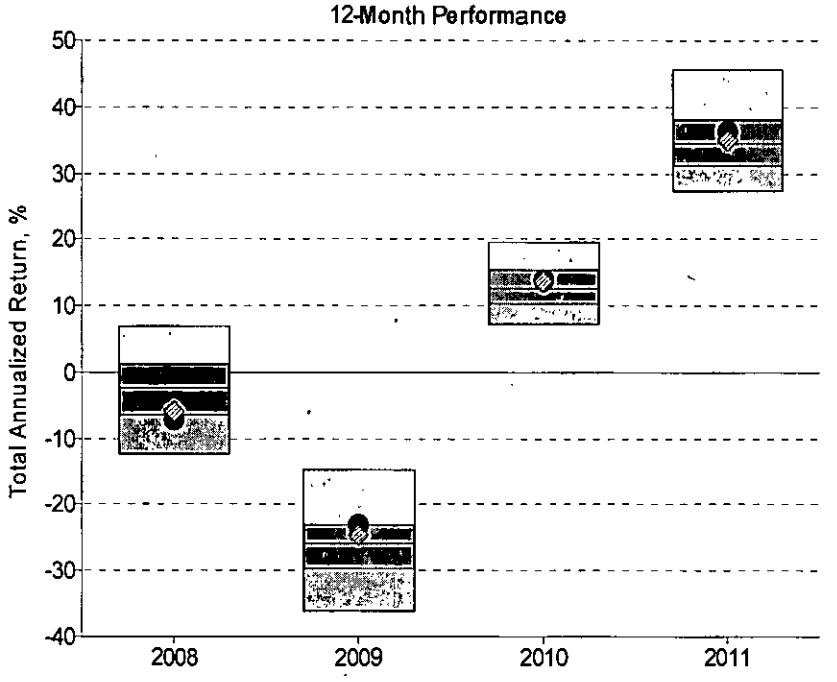
Sources: Data MPI/eVestment (index information).

All performance is shown gross of fees.

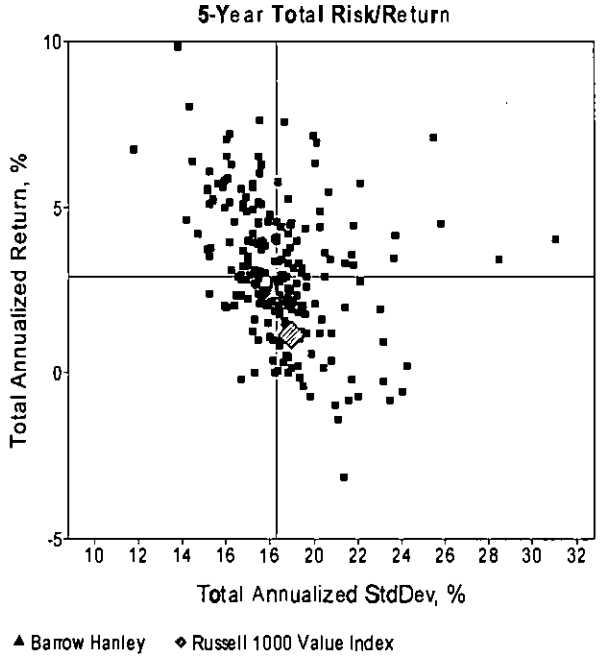
Performance and related statistics calculated using MPI software that geometrically linked and compounded returns.

Oakland Large Cap Growth Manager Comparisons as of June 30, 2011

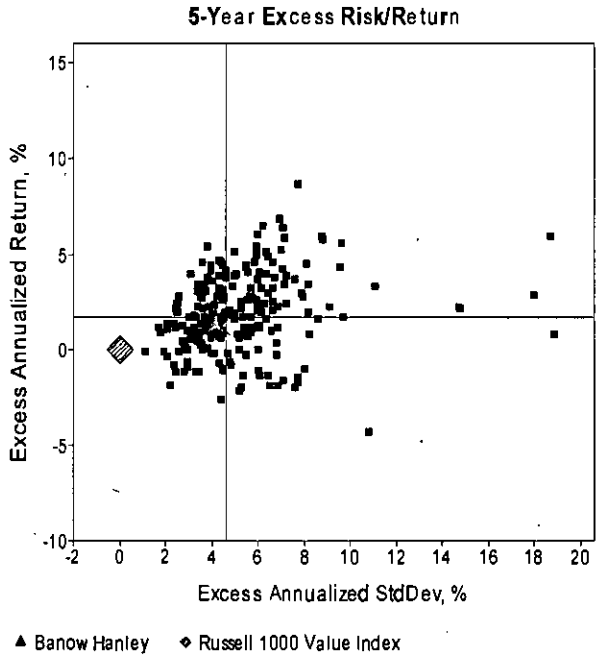




Oakland Large Cap Value Manager Comparisons as of June 30, 2011

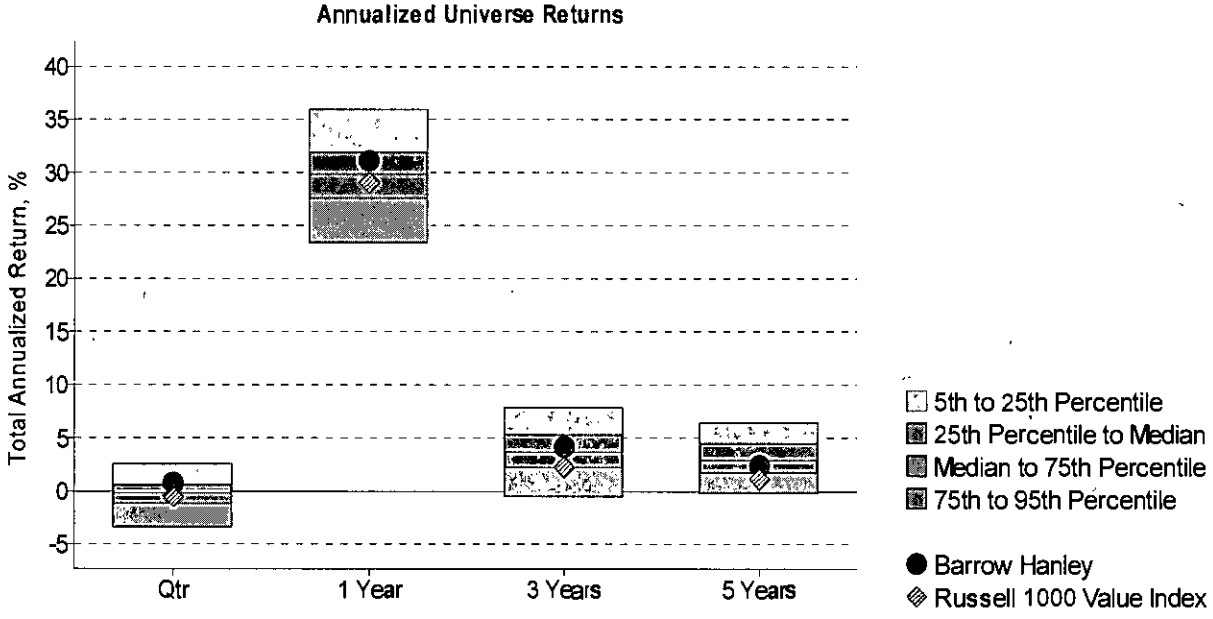


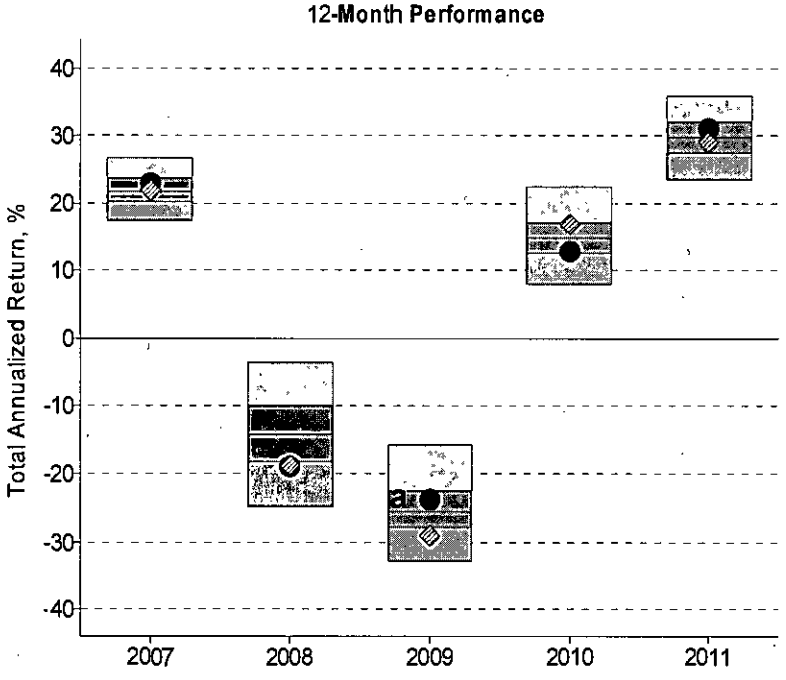
	Annualized Return. %	Annualized StdDev, %	Sharpe ,Ratio
Barrow Hanley	2.41	18.11	0.13
Russell 1000 Value Index	1.15	18.98	0.06
LC Value Universe Median	2.93	18.31	0.16



	Annualized Excess Return. %	Annualized Excess StDev. %	Sharpe Ratio. Excess
Barrow Hanley	1.26	4.16	0.30
Russell 1000 Value Index	0.00	0.00	NA
LC Value Universe Median	1.77	4.59	0.38

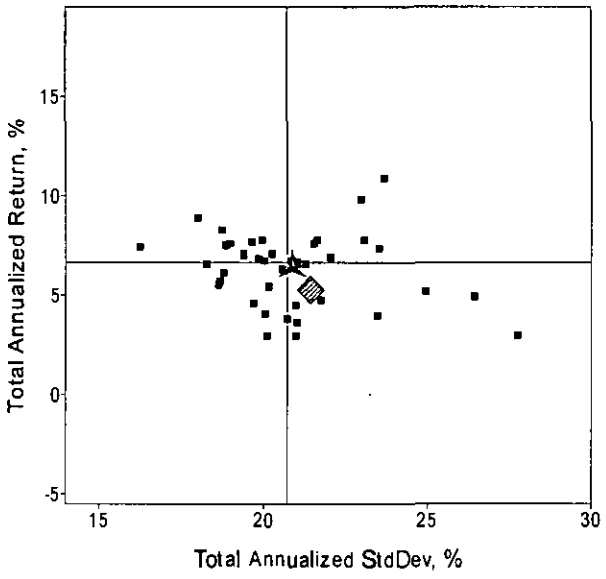
Oakland Large Cap Value Manager Comparisons as of June 30, 2011





Oakland Mid Cap Core Manager Comparisons as of June 30, 2011

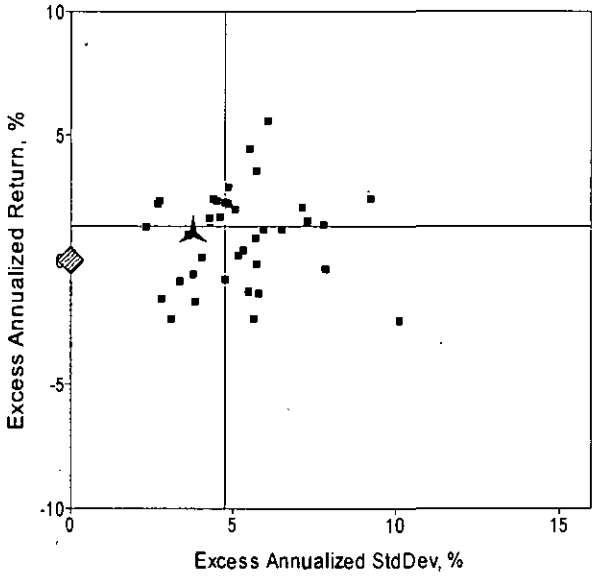
5-Year Total Risk/Return



▲ Earnest ◈ Russell Mid-Cap Index

	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Earnest	6.44	20.89	0.31
Russell Mid-Cap Index	5.30	21.42	0.25
Mid Cap Core Universe Median	6.69	20.73	0.32

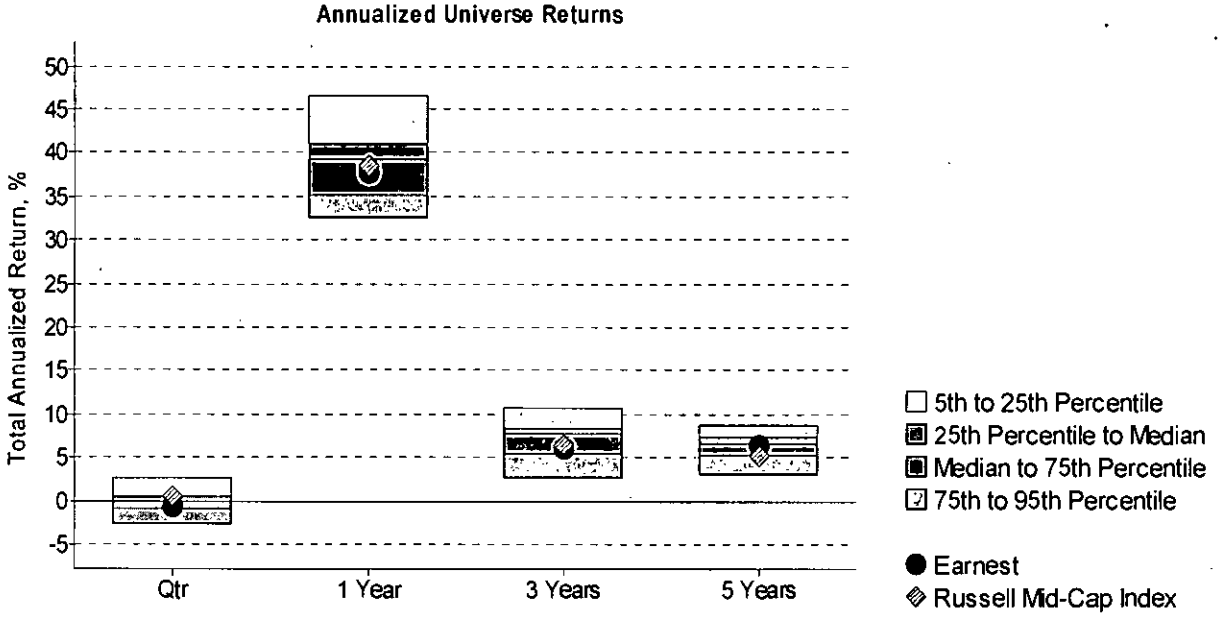
5-Year Excess Risk/Return

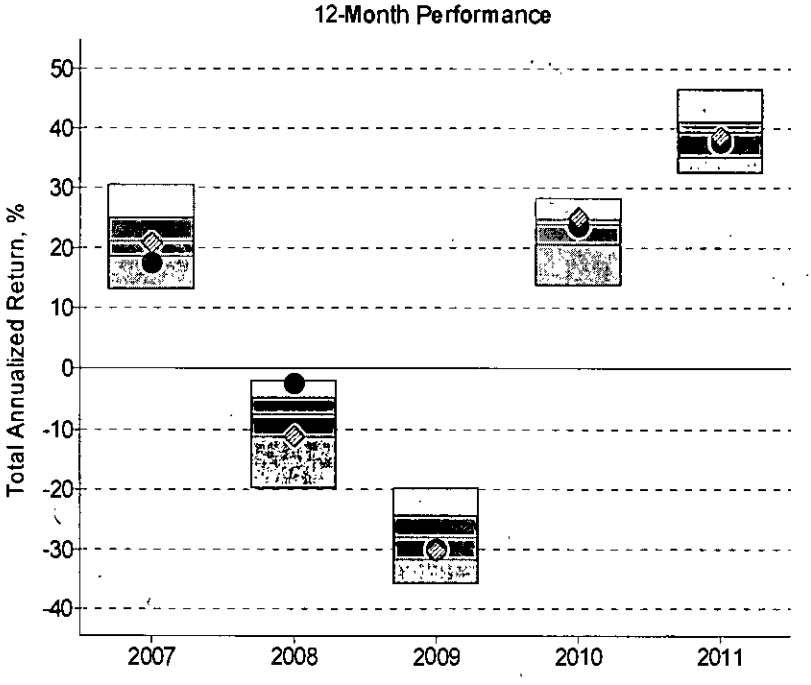


▲ Earnest ◈ Russell Mid-Cap Index

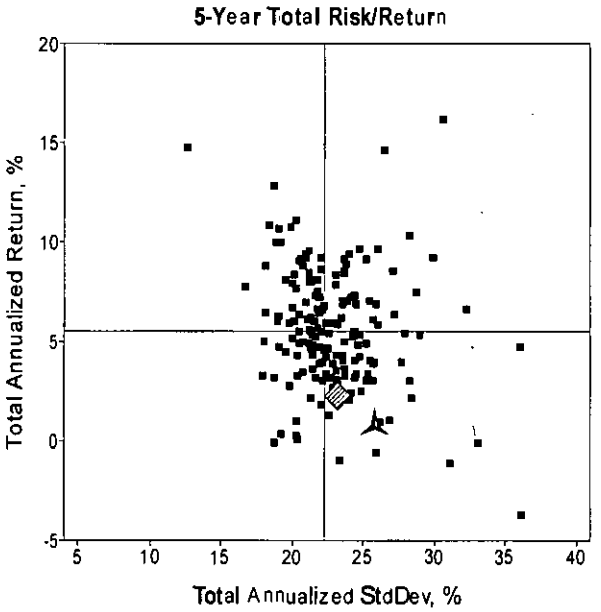
	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Earnest	1.14	3.76	0.30
Russell Mid-Cap Index	0.00	0.00	NA
Mid Cap Core Universe Median	1.39	4.74	0.28

Oakland Mid Cap Core Manager Comparisons as of June 30, 2011



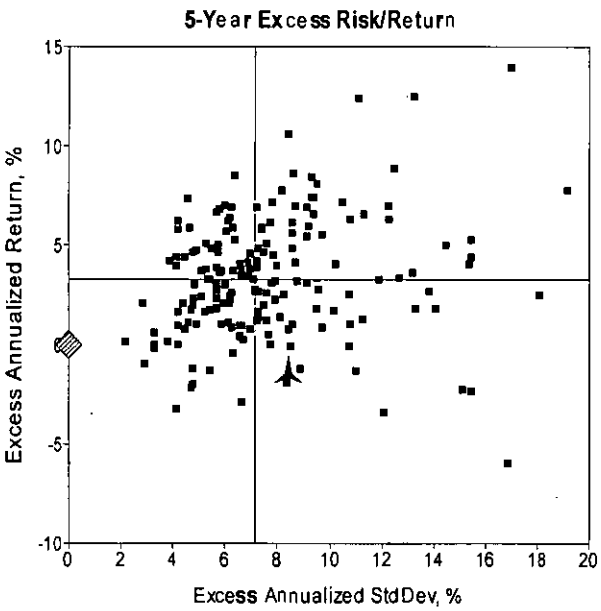


Oakland Small Cap Value Manager Comparisons as of June 30, 2011



▲ NWQ ◆ Russell 2000 Value Index

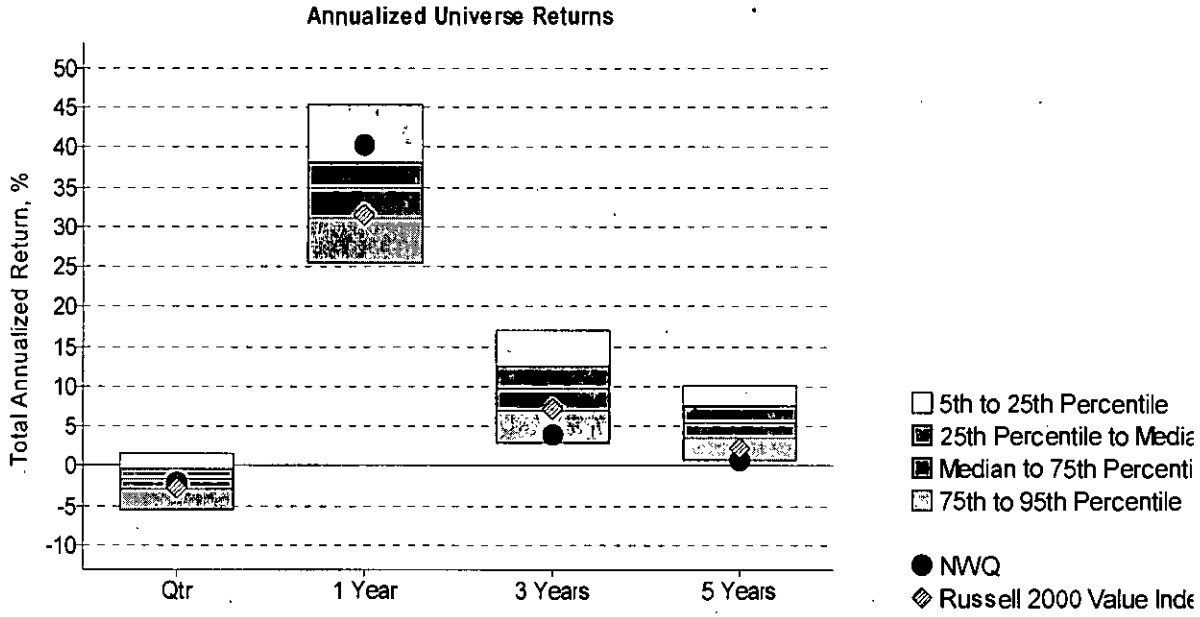
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
NWQ	0.81	25.81	0.03
Russell 2000 Value Index	2.24	23.26	0.10
Small Cap Value Universe Median	5.50	22.21	0.24

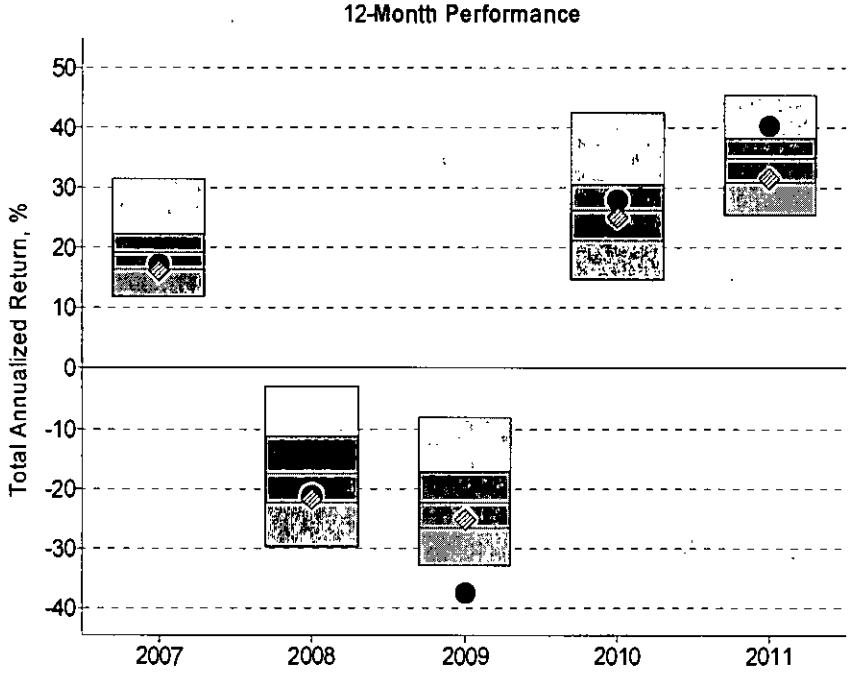


▲ NWQ ◆ Russell 2000 Value Index

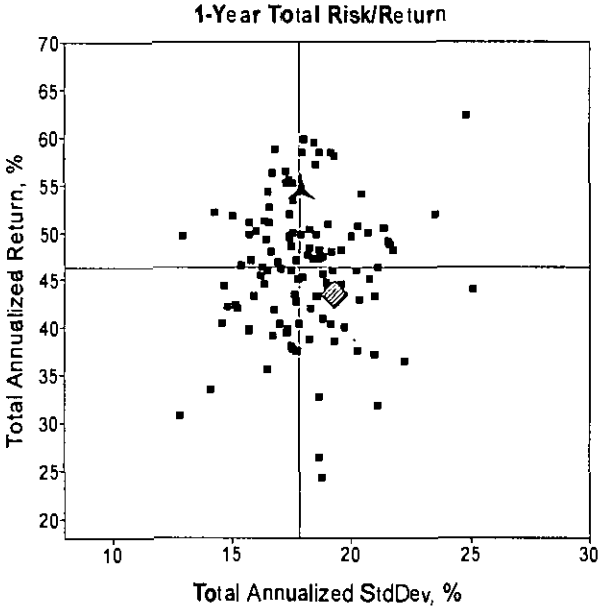
	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
NWQ	-1.43	8.45	-0.17
Russell 2000 Value Index	0.00	0.00	NA
Small Cap Value Universe Median	3.26	7.17	0.42

Oakland Small Cap Value Manager Comparisons as of June 30, 2011

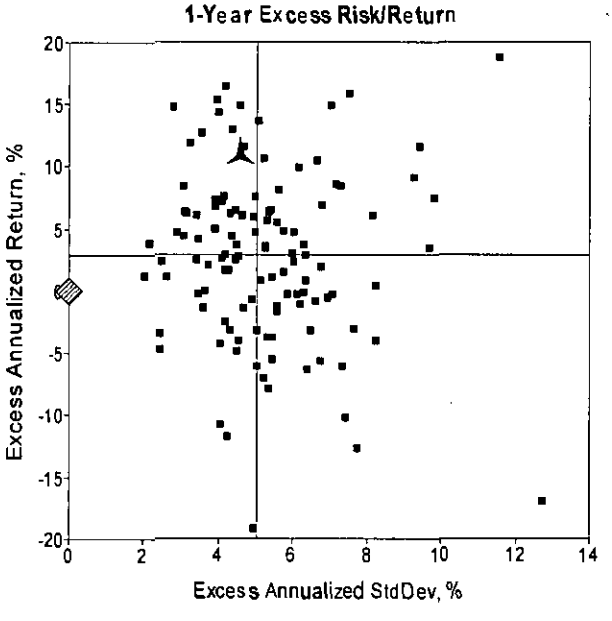




Oakland Small Cap Growth Manager Comparisons as of June 30, 2011

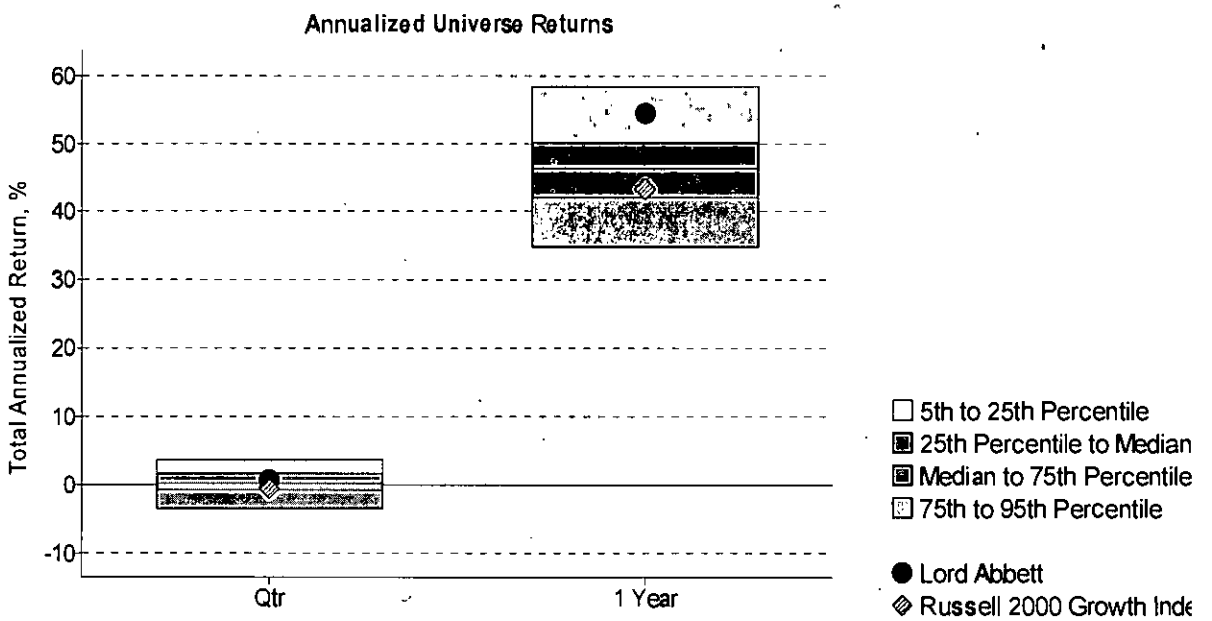


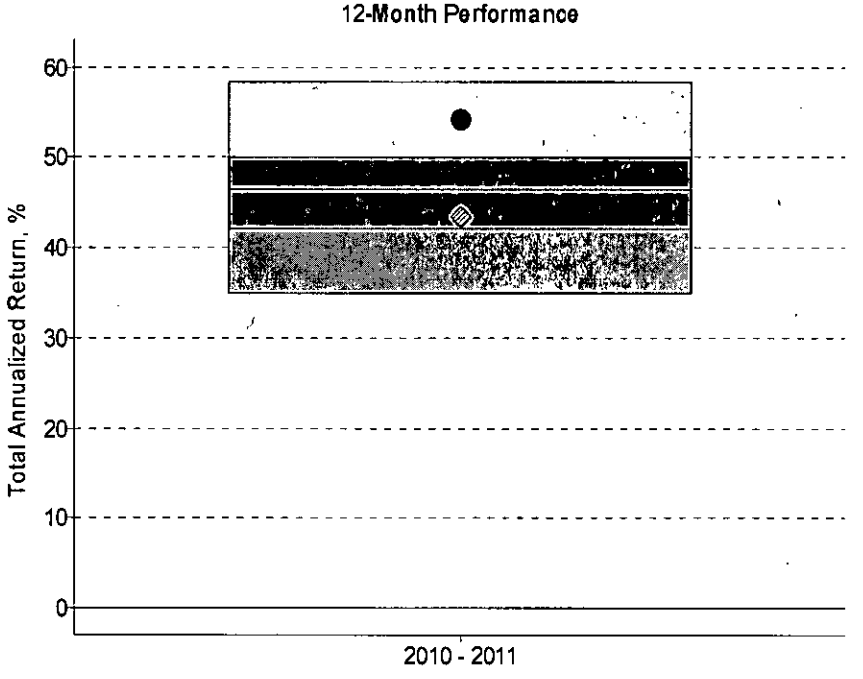
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Lord Abbett	64.33	17.91	3.03
Russell 2000 Growth Index	43.50	19.27	2.26
Small Cap Value Universe Median	46.38	17.83	2.54



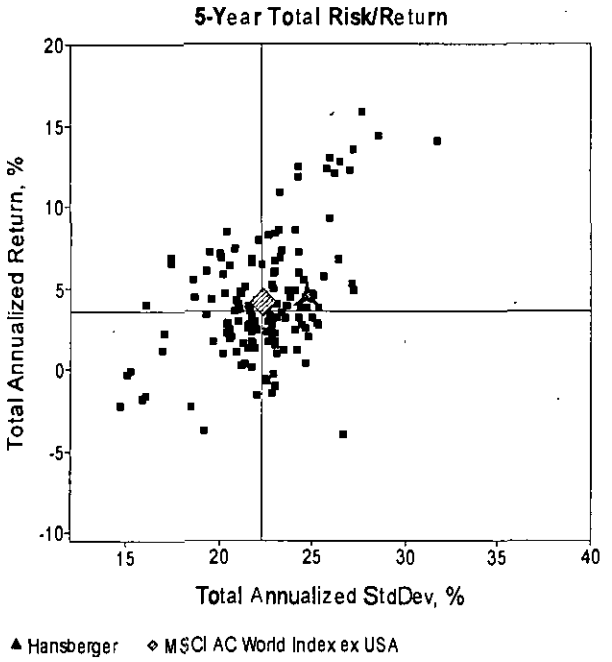
	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Lord Abbett	10.83	4.61	2.35
Russell 2000 Growth Index	0.00	0.00	NA
Small Cap Value Universe Median	2.89	5.06	0.62

Oakland Small Cap Growth Manager Comparisons as of June 30, 2011

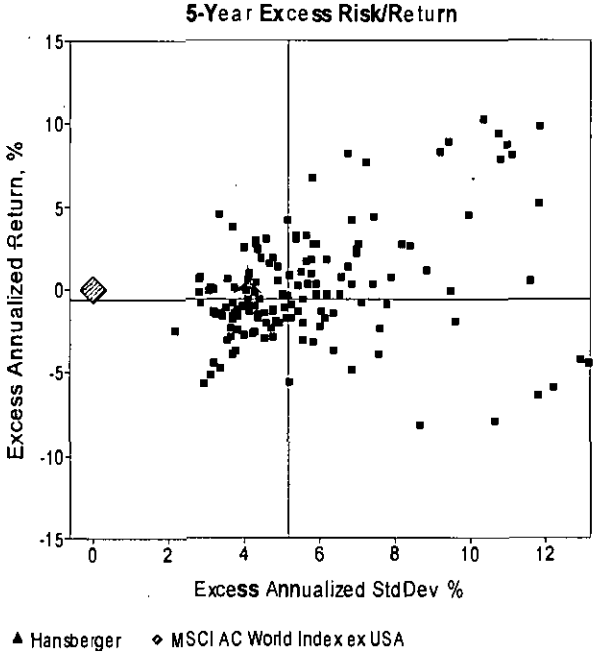




Oakland International Equity Manager Comparisons as of June 30, 2011

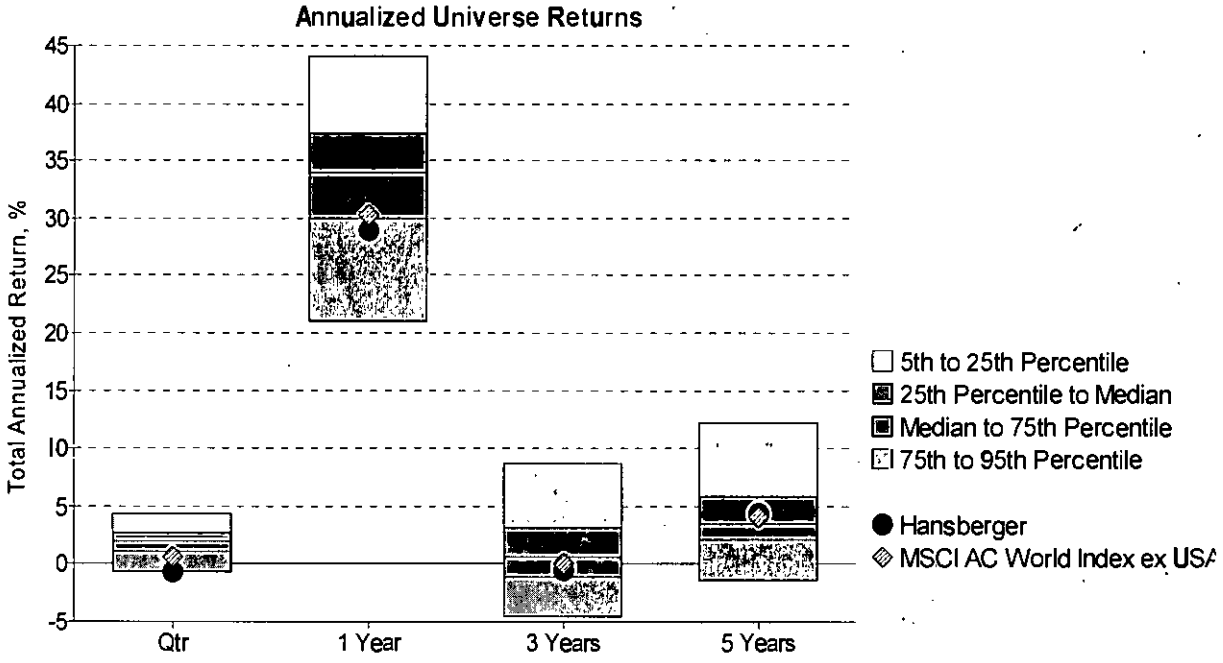


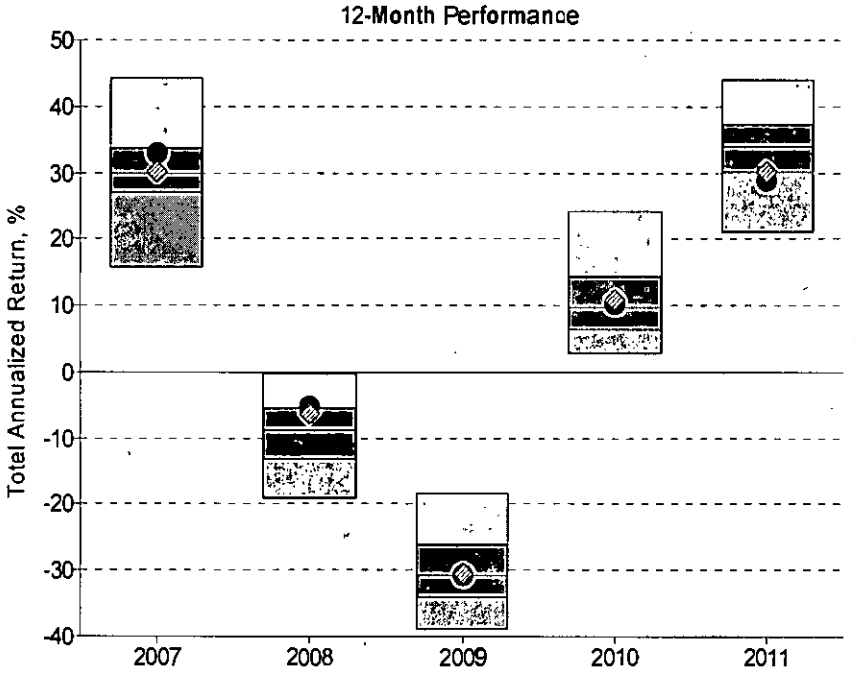
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Hansberger	4.41	24.70	0.18
MSCI AC World Index ex USA	4.14	22.33	0.19
International Equity Manager Universe Median	3.56	22.27	0.16



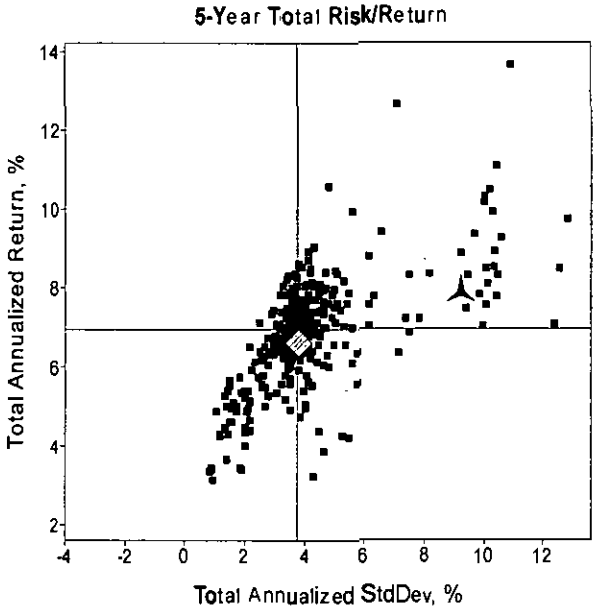
	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Hansberger	0.28	4.09	0.07
MSCI AC World Index ex USA	0.00	0.00	NA
International Equity Manager Universe Median	-0.58	5.18	-0.10

Oakland International Equity Manager Comparisons as of June 30, 2011

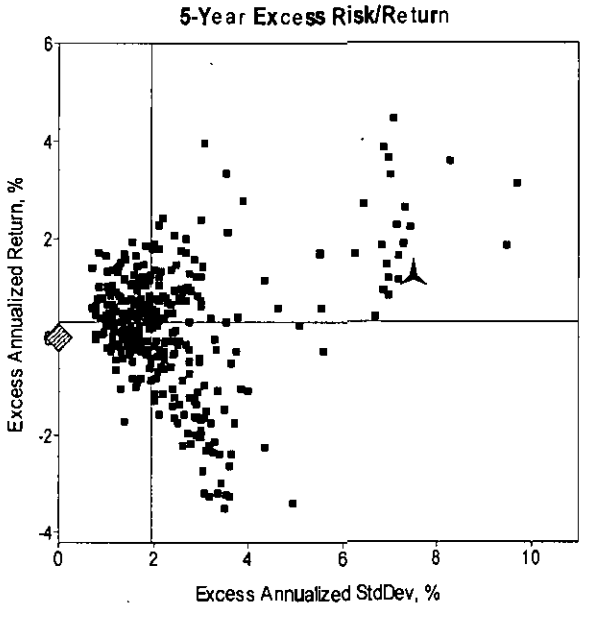




Oakland Fixed Income Manager Comparisons as of June 30, 2011

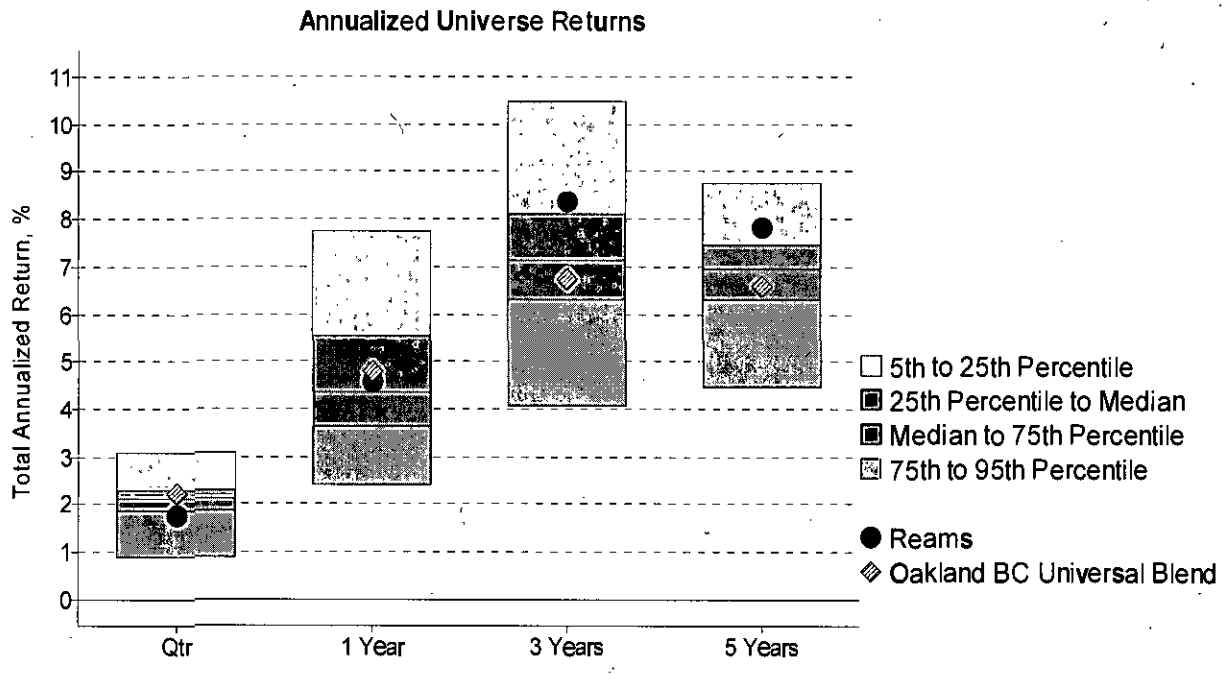


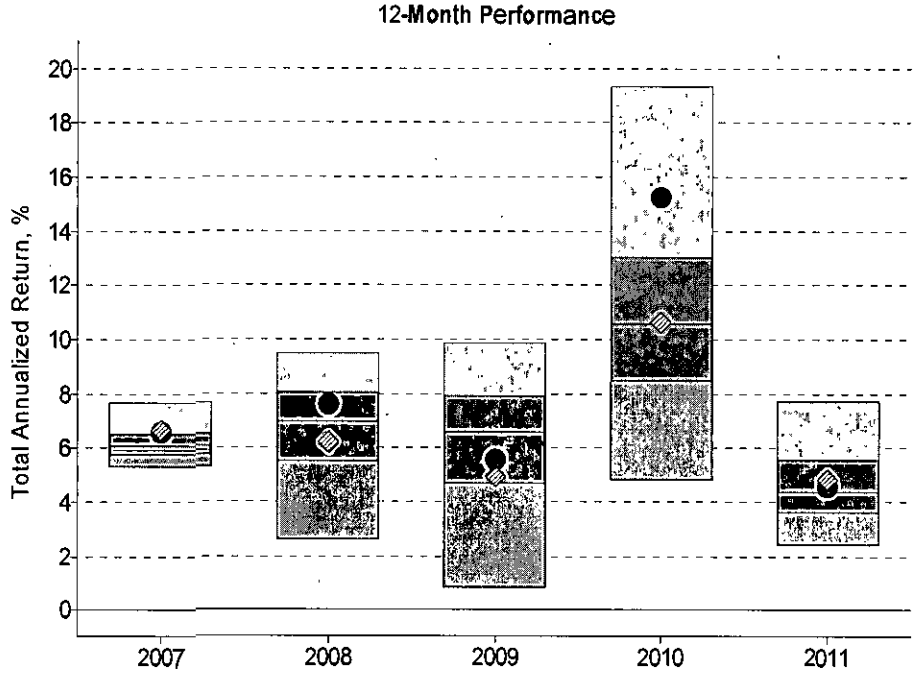
	Annualized Return, %	Annualized StdDev, %	Sharpe Ratio
Reams	7.84	9.21	0.85
Oakland BC Universal Blend	6.61	3.79	1.74
U.S. Fixed Income Manager Universe Median	6.95	3.72	1.89



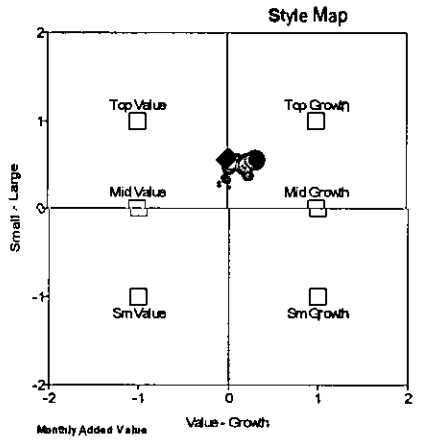
	Annualized Excess Return, %	Annualized Excess StDev, %	Sharpe Ratio, Excess
Reams	1.23	7.50	0.16
Oakland BC Universal Blend	0.00	0.00	NA
U.S. Fixed Income Manager Universe Median	0.34	1.95	0.16

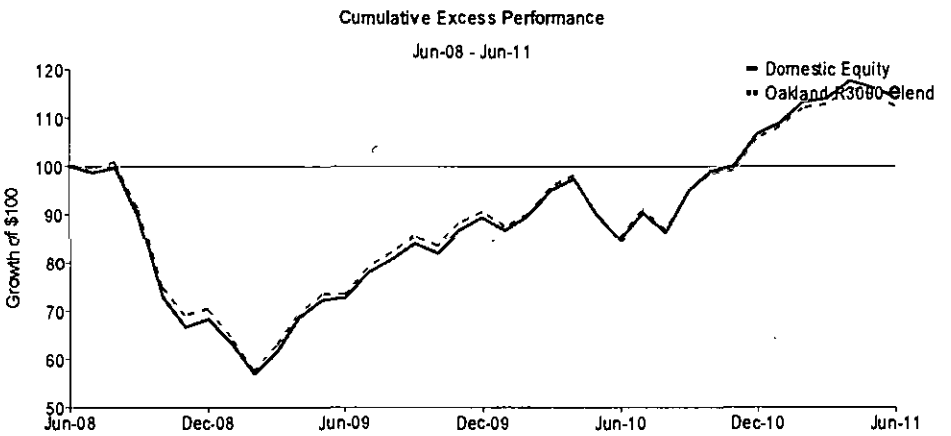
Oakland Fixed Income Manager Comparisons as of June 30, 2011

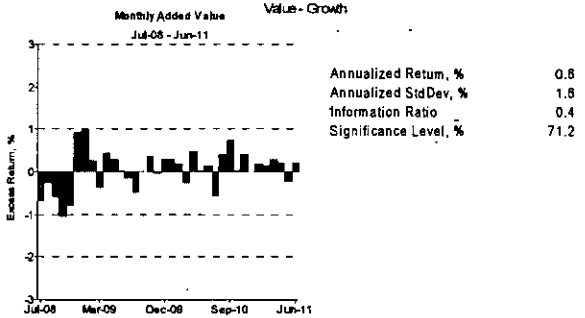




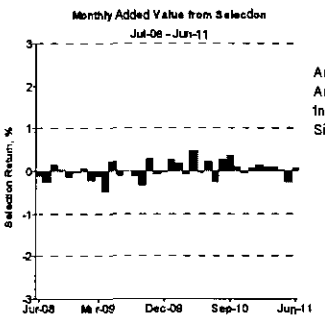
Domestic Equity



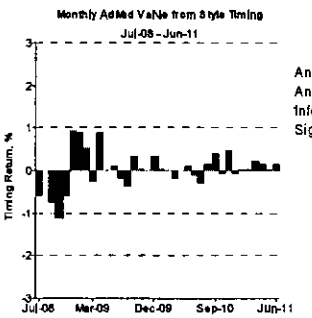




Annualized Return, %	0.8
Annualized StdDev, %	1.8
Information Ratio	0.4
Significance Level, %	71.2

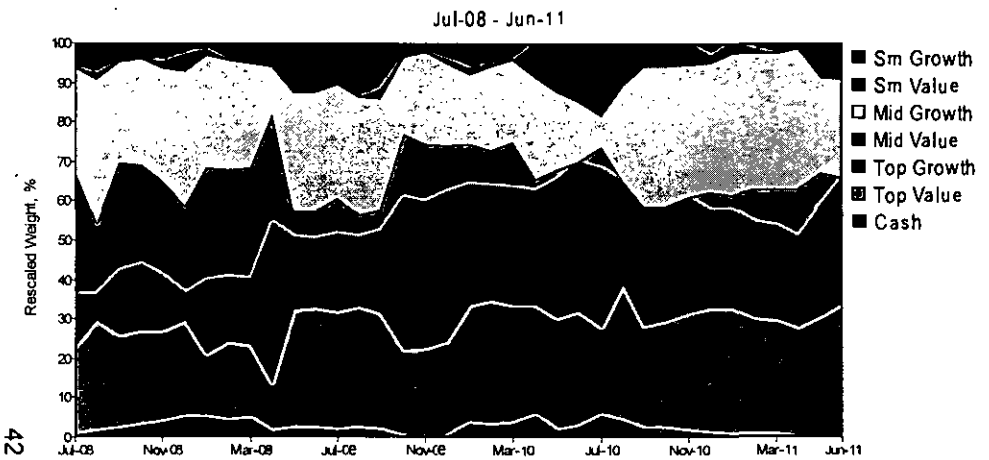


Annualized Return, %	0.2
Annualized StdDev, %	0.7
Information Ratio	0.3
Significance Level, %	68.0

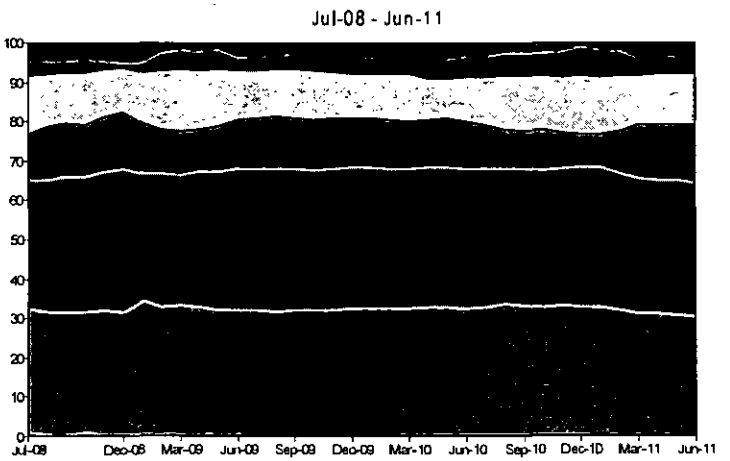


Annualized Return, %	0.4
Annualized StdDev, %	1.5
Information Ratio	0.2
Significance Level, %	64.6

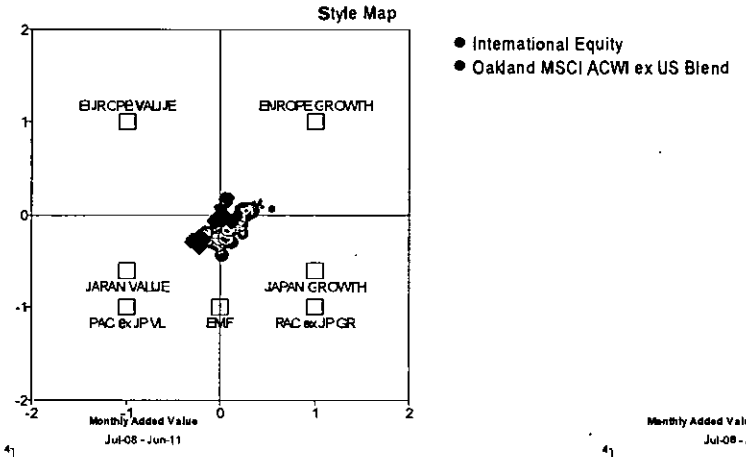
Asset Loadings - Manager

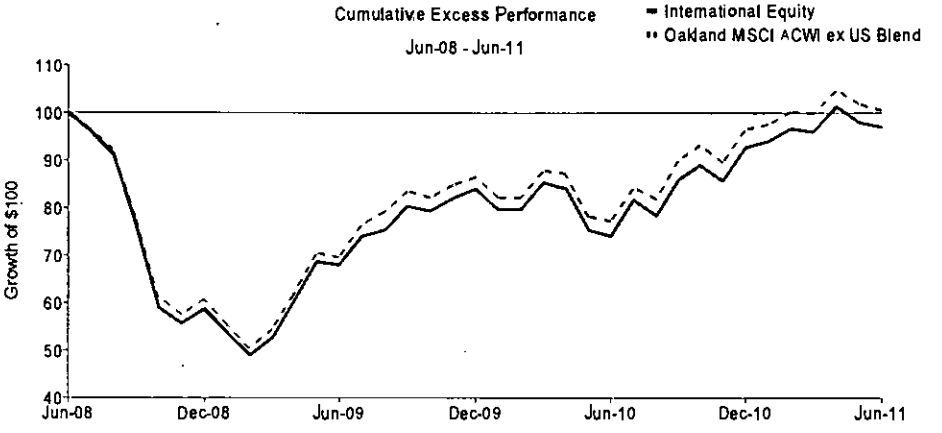


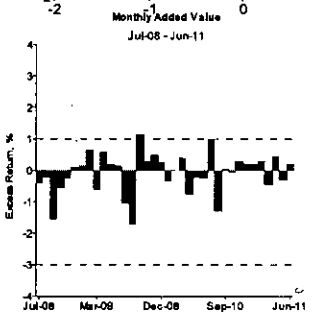
Asset Loadings - Benchmark



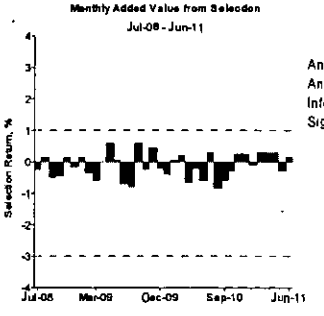
International Equity



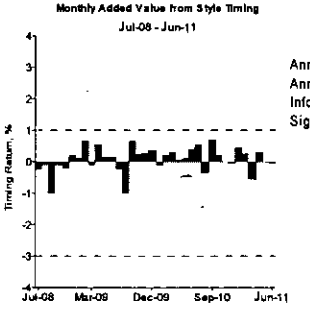




Annualized Return, %	-1.2
Annualized StdDev, %	2.2
Information Ratio	-0.5
Significance Level, %	81.4

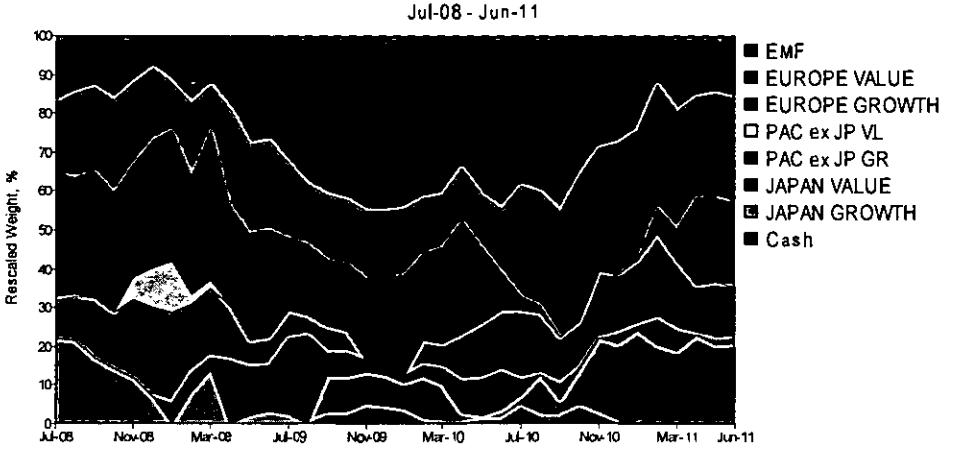


Annualized Return, %	-1.5
Annualized StdDev, %	1.4
Information Ratio	-1.1
Significance Level, %	96.4

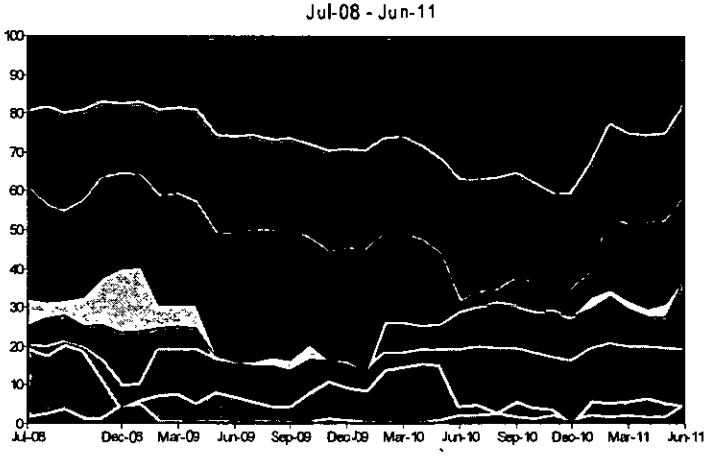


Annualized Return, %	0.8
Annualized StdDev, %	1.4
Information Ratio	0.6
Significance Level, %	83.0

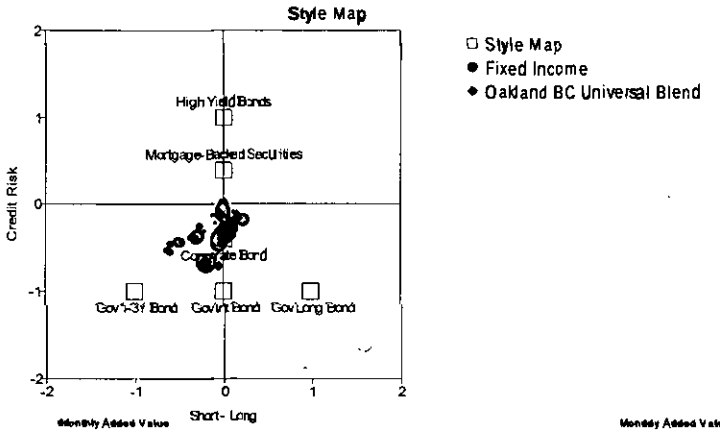
Asset Loadings - Manager

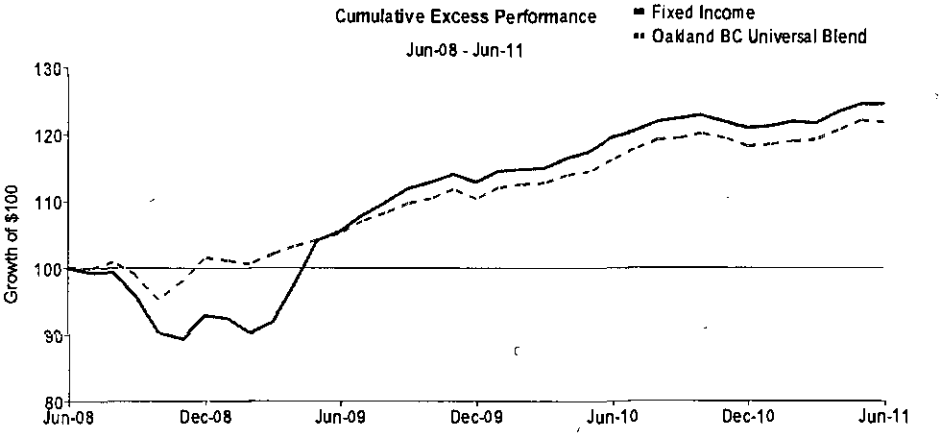


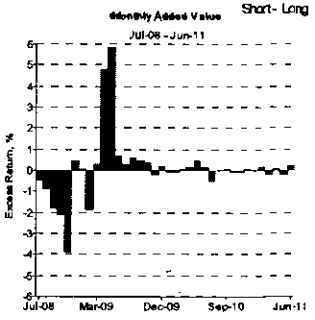
Asset Loadings - Benchmark



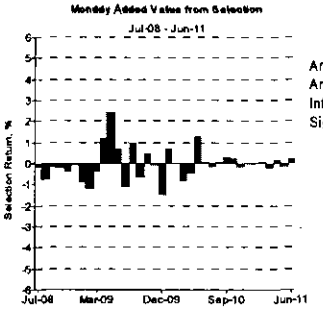
Fixed Income



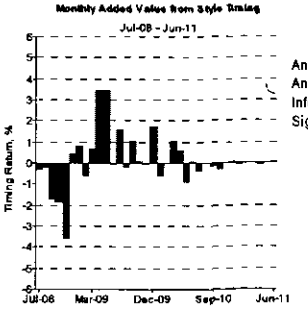




Annualized Return, %	0.8
Annualized StdDev, %	5.4
Information Ratio	0.2
Significance Level, %	59.9



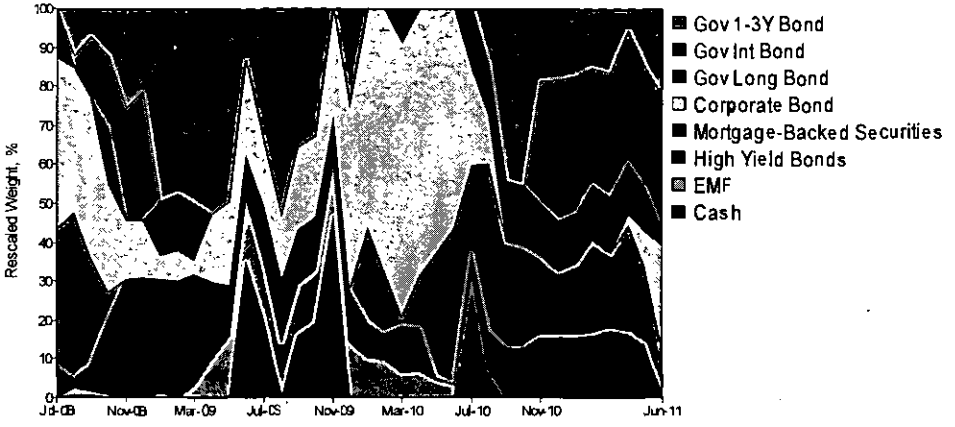
Annualized Return, %	-0.3
Annualized StdDev, %	2.6
Information Ratio	-0.1
Significance Level, %	58.7



Annualized Return, %	1.4
Annualized StdDev, %	4.3
Information Ratio	0.3
Significance Level, %	69.8

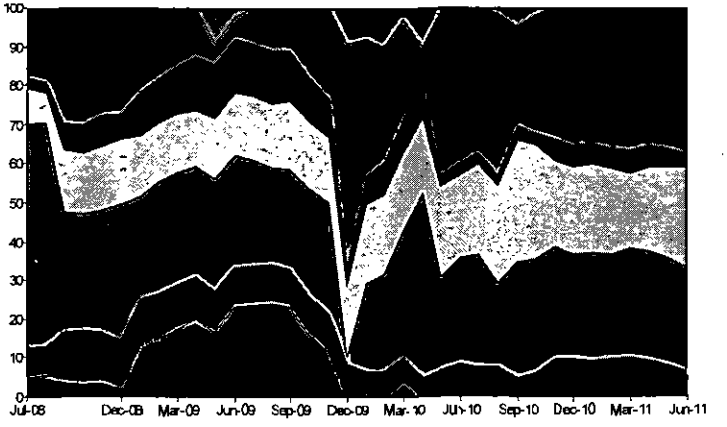
Asset Loadings - Manager

Jul-08 - Jun-11



Asset Loadings - Benchmark

Jul-08 - Jun-11



Appendix

Glossary

Alpha
The premium an investment earns above a set standard. This is usually measured in terms of a common index (i.e., how the stock performs independent of the market). An Alpha is usually generated by regressing a security's excess return on the S&P 500 excess return.

Annualized Performance
The annual rate of return that when compounded t times generates the same t-period holding return as actually occurred from period 1 to period t.

Batting Average
Percentage of periods a portfolio outperforms a given index.

Beta
The measure of an asset's risk in relation to the Market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a security with a Beta of 1.5, will have moved, on average, 1.5 times the market return.

Bottom-up
A management style that de-emphasizes the significance of economic and market cycles, focusing instead on the analysis of individual stocks.

Dividend Discount Model
A method to value the common stock of a company that is based on the present value of the expected future dividends.

Growth Stocks
Common stock of a company that has an opportunity to invest money and earn more than the opportunity cost of capital.

Information Ratio
The ratio of annualized expected residual return to residual risk. A central measurement for active management, value added is proportional to the square of the information ratio.

R-Squared
Square of the correlation coefficient. The proportion of the variability in one series that can be explained by the variability of one or more other series a regression model. A measure of the quality of fit. 100% R-square means perfect predictability.

Standard Deviation
The square root of the variance. A measure of dispersion of a set of data from its mean.

Sharpe Ratio
A measure of a portfolio's excess return relative to the total variability of the portfolio.

Style Analysis
A returns-based analysis using a multi-factor attribution model. The model calculates a product's average exposure to particular investment styles over time (i.e., the product's normal style benchmark).

Top-down
Investment style that begins with an assessment of the overall economic environment and makes a general asset allocation decision regarding various sectors of the financial markets and various industries.

Tracking Error
The standard deviation of the difference between the performance of a portfolio and an appropriate benchmark.

Turnover
For mutual funds, a measure of trading activity during the previous year, expressed as a percentage of the average total assets of the fund. A turnover rate of 25% means that the value of trades represented one-fourth of the assets of the fund.

Value Stocks
Stocks with low price/book ratios or price/earnings ratios. Historically, value stocks have enjoyed higher average returns than growth stocks (stocks with high price/book or P/E ratios) in a variety of countries.

Definition of Indices

Barclays Capital Universal: includes market coverage by the Aggregate Bond Index fixed rate debt issues, which are rated investment grade or higher by Moody's Investor Services, Standard and Poor's Corporation, or Fitch Investor's Service, in that order with all issues having at least one year to maturity and an outstanding par value of at least $100 million) and includes exposures to high yield CMBS securities. All returns are market value weighted inclusive of accrued interest.

MSCI ACWI x US: MSCI ACWI (All Country World Index) Free excluding US (gross dividends): is a free-floating adjusted market capitalization index designed to measure equity performance in the global developed and emerging markets. As of April 2002, the index consisted of 49 developed and emerging market country indices.

MSCI EAFE (Europe, Australasia, Far East): is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada.

Russell 1000: measures the performance of the 1,000 largest securities in the Russell 3000 Index. Russell 1000 is highly correlated with the S&P 500 Index and capitalization-weighted.

Russell 1000 Growth: measures the performance of those Russell 1000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.

Russell 1000 Value: measures the performance of those Russell 1000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values than the Growth universe.

Russell MidCap: measures the performance of the smallest 800 companies in the Russell 1000 Index, as ranked by total market capitalization.

Russell 2000: measures the performance of the 2,000 smallest securities in the Russell 3000 Index. Russell 2000 is market capitalization-weighted.

Russell 2000 Growth: measures the performance of those Russell 2000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-to-earnings ratios.

Russell 2000 Value: measures the performance of those Russell 2000 securities with a less-than-average growth orientation. Securities in this index tend to exhibit lower price-to-book and price-to-earnings ratios.

RISK METRIC DESCRIPTION – Rationale for selection and calculation methodology

US Equity Markets:

Metric: P/E ratio = Price / "Normalized" earnings for the S&P 500 Index

To represent the price of US equity markets, we have chosen the S&P 500 index. This index has the longest published history of price, is well known, and also has reliable, long-term, published quarterly earnings. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the S&P 500 index). Equity markets are very volatile. Prices fluctuate significantly during normal times and extremely during periods of market stress or euphoria. Therefore, developing a measure of earnings power (E) which is stable is vitally important, if the measure is to provide insight. While equity prices can and do double, or get cut In half, real earnings power does not change nearly as much. Therefore, we have selected a well known measure of real, stable earnings power developed by Yale Professor Robert Shiiler known as the Shiiler E-10. The calculation of E-10 is simply the average real annual earnings over the past 10 years. Over 10 years, the earnings shenanigans and boom and bust levels of earnings tend to even out (and often times get restated). Therefore, this earnings statistic gives a reasonably stable, slow-to-change estimate of average real earnings power for the index. Professor Shiller's data and calculation of the E-10 are available on his website at http://www.econ.yale.edu/~shiiler/data.htm. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational* Exuberance [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].

Developed Equity Markets Excluding the US:

Metric: P/E ratio = Price / "Normalized" earnings for the MSCI EAFE Index

To represent the price of non-US developed equity markets, we have chosen the MSCI EAFE index. This index has the longest published history of price for non-US developed equities. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the MSCI EAFE index).. The price level of this index is available starting in December 1969. Again, for the reasons described above, we elected to use the Shiiler E-10 as our measure of earnings (E). Since 12/1972, a monthly price earnings ratio is available from MSCI. Using this quoted ratio, we have backed out the implied trailing-twelve month earnings of the EAFE index for each month from 12/1972 to the present. These annualized earnings are then inflation adjusted using CPI-U to represent real earnings in US dollar terms for each time period. The Shiiler E-10 for the EAFE index (10 year average real earnings) is calculated in the same manner as detailed above.

However, we do not believe that the pricing and earnings history of the EAFE markets are long enough to be a reliable representation of pricing history for developed market equities outside of the US. Therefore, in constructing the Long-Term Average Historical P/E for developed ex-US equities for comparison purposes, we have elected to use the US equity market as a developed market proxy, from 1881 to 1982. This lowers the Long-Term Average Historical P/E considerably. We believe this methodology provides a more realistic historical comparison for a market with a relatively short history.

US Private Equity Markets:

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (eamings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in $ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

U.S Private Real Estate Markets:

Metrics: US Cap rates and Annual US Real Estate Deal Volume

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The date is published by NCREIF. We chose to use current value cap rate. These are capitalization rates from properties that were revalued during the quarter. While this data does rely on estimates of value and therefore tends to be lagging, (estimated prices are slower to rise and slow to fall than transaction prices), the data series goes back to1979, providing a long data series for valuation comparison. Data is published quarterly.

Annual US real estate deal volume is the total deal transaction volume in $ billions (both equity and debt) reported by Real Capital Analytics during the traiiing-twelve months. This metric gives the level of activity in the market. Data is published monthly.

Credit Markets US Fixed Income:

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of vaiuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Barclays Capital US Corporate High Yield Index.

Measure of Equity Market Fear / Uncertainty

Metric: VIX – Measure of implied option volatility for U.S. equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

Measure of Monetary Policy

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.

Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPs. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

Definition of "extreme" metric readings

A metric reading is defined as "extreme" if the metric reading is in the top or bottom decile of its historical readings. These "extreme" reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.