

INVESTMENT REPORT

TENNESSEE CONSOLIDATED RETIREMENT SYSTEM

**Second Quarter
Fiscal Year 2012 - 2013**

October 1, 2012 – December 31, 2012

March 6, 2013

Investment Advisory Council

Pursuant to T.C.A. Section 8-37-108, the State Treasurer shall nominate, with the advice and consent of the Board of Trustees, the Investment Advisory Council, comprised of five senior investment professionals in the Tennessee investment community, who shall have at least five years professional experience as a portfolio manager, economist or an investment advisor in any field of which investments of TCRS funds are authorized. The term of appointment is for five years. Also, the treasurer may nominate two (2) additional members for three year terms.

The TCRS investment staff consults quarterly with the Advisory Council on a formal basis for strategy and guidance, and on an informal basis as needed.

The current members are as follows:

<u>Council Member</u>	<u>Expiration of Term</u>	<u>Appointed Term</u>
Frederick S. Crown, Jr., CFA 124 Longwood Place Nashville, TN 37215 Phone: 615-347-0343 E-mail: crownfl@gmail.com	June 30, 2017	5 year
Henry J. Delicata Park Street Capital One Federal Street, 24 th Floor Boston, MA 02109 Phone: (cell) 617-347-8854 / (office) 617-897-9252 E-mail: hdelicata@parkstreetcapital.com	June 30, 2014	5 year
Susan Logan Huffman, CFA Managing Director Reliant Investment Management, LLC 6077 Primacy Parkway, Suite 130 Memphis, TN 38119 Phone: 901-843-0600 / Fax: 901-843-0325 E-mail: shuffman@reliantllc.com	June 30, 2016	5 year
George B. Stadler, CFA 95 White Bridge Road, Suite 414 Nashville, TN 37205 Phone: 615-416-3455 cell E-mail: george@hmscm.com	June 30, 2015	5 year
Chuck Webb, CFA Chief Investment Officer Weaver C. Barksdale & Associates One Burton Hills Boulevard, Suite 100 Nashville, TN 37215 Phone: 615-665-1088 E-mail: cwebb@wcbarksdale.com	June 30, 2013	5 year
Carol Womack, Principal Diversified Trust Company 3102 West End Avenue, Suite 600 Nashville, TN 37203 Phone: 615-386-7302 E-mail: cwomack@diversifiedtrust.com	June 30, 2015	3 year

TENNESSEE CONSOLIDATED RETIREMENT SYSTEM

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Fiscal Year 2012-2013

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Minutes from the Investment Advisory Council Meeting November 29, 2012

Mr. Michael Brakebill, Chief Investment Officer, convened the meeting at 10:00 a.m. in the 11th Floor conference room of the Andrew Jackson State Office Building. The Investment Advisory Council (IAC) members present were: Mr. George Stadler, Mr. Chuck Webb, Mr. Fred Crown, and Ms. Carol Womack. Ms. Susan Huffman participated by conference call. Mr. Henry Delicata was unable to attend. Investment Staff members present were: Michael Brakebill, Daniel Crews, Derrick Dagnan, Michael Giggie, Carrie Green, Matthew Haitas, Peter Katseff, Michael Keeler, Thomas Kim, Tim McClure, Rhonda Myers, Andy Palmer, Jim Robinson, Lamar Villere, and Roy Wellington. Treasurer David Lillard, Ms. Janice Cunningham and Mr. Bill Abney were also in attendance.

George Stadler, the chairperson of the Investment Advisory Council, called the meeting to order and read the following:

Tenn. Code Ann. §8-44-108(b)(2) provides that in the event that a governing body does not have a physical quorum of the members present at the location of the meeting, then a quorum of members can participate by electronic or other means as long as the governing body makes a determination that a necessity exists for the teleconference participation. The necessity determination and a recitation of the facts and circumstances on which it is based, must be included in the minutes of the meeting. The Investment Committee determined that it was necessary to meet by teleconference.

Next, George Stadler proposed that the minutes from the previous IAC meeting on June 6, 2012 be adopted. There were no questions regarding the minutes and Susan Huffman motioned to adopt the minutes. The motion was seconded by Fred Crown and unanimously approved. The Chairperson turned the meeting over to Mr. Brakebill to give a review of investment performance and current initiatives.

Mr. Brakebill reviewed the fund's investment performance, which was illustrated in the Investment Report and in the Strategic Investment Solutions (SIS) quarterly performance report. He noted that 1-year performance of 18.1% beat 62% of funds. The fund outperformed its benchmark by 0.5% for 1-year returns and 0.7% for 3-year returns. The 3-year performance beat 82% of peers and the 5-year performance of the fund beat 93% of peers (3.5%).

Mr. Brakebill gave an overview of the key initiatives. He noted the allocation changes were approved by the Council on Pensions and Insurance on October 31, 2012. These changes include the implementation of a strategic lending program, non-core real estate investing and the addition of emerging market equities to the portfolio. Mr. Brakebill handed out a graph which contained the country exposures of the newly created emerging market portfolio as of November 28, 2012.

Mr. Brakebill added a few additional announcements. He noted Deutsche Bank had been selected as the firm to implement and manage the new securities lending program. The process of identifying and performing due diligence on private equity managers continues. He stated the fund has a neutral tactical allocation and is currently moving toward the new targets approved with the recent changes to Investment Policy.

Mr. Brakebill noted that the investment staff is evaluating Master Limited Partnerships (MLPs). Staff has researched these securities and is considering the suitability for the portfolio. In addition, the entire investments staff reviewed the pension fund for state employees of Missouri or MOSERS. Mr. Brakebill noted that MOSERS has implemented some fairly radical allocation changes over the past decade including the use of sophisticated securities and leverage. He noted staff intends to continue to study MOSERS and other cutting edge portfolios.

Mike Keeler moved the discussion to domestic equities. He noted the September quarter got off to a slow start as the Fed and the ECB took turns providing hopeful rhetoric with disappointing follow up until the last month of the quarter. Markets improved considerably as the Fed announced continued “QE” and the ECB initiated a bond buying program. It was primarily a “risk off” quarter with defensive, size, value and quality factors performing well although a rather sharp reversal occurred near the very end of the quarter coincident with the aforementioned global central bank announcements.

Mr. Keeler stated the Mid Cap Fund outperformed the S&P Mid Cap 400 primarily due to good stock selection in the Consumer Discretionary, Technology and Energy sectors somewhat offset by poor stock selection in the Consumer Staples sector. Stock selection accounted for all of excess return during the quarter.

Jim Robinson moved the discussion to the Quant Fund. He noted that central bank interventions appeased concerns about the sovereign debt crisis in Europe and the apparently fragile state of the global economy. The quantitative models the fund utilizes performed fairly well during the quarter, but in the last two weeks of September the Quant Fund lost traction with the big expectational shifts reflected in the market. Tracking error was lowered in the previous quarter. As of September 30, the tracking error was 1.08% and it currently sits at 1.10%. The transfer coefficient was 0.41, adequately high given the recent risk reduction measures taken. Even though systematic or factor risk is about 30% of the fund’s total risk, it has been reduced to quite low absolute levels.

Roy Wellington noted the Sector Fund moved at the mercy of macro forces that gave an unreal sense of stability despite the very real financial problems in the world. The Sector Fund focused on finding good companies with underappreciated earnings potential. The Sector Fund continued to de-emphasize economic sensitivity for stable value creators.

A representative trade for this quarter highlights the evolution in the technology. Mobile devices and apps continue to penetrate the postpaid wireless customer base and crossed the 50% of

penetration threshold. Apple, as expected, introduced their latest iPhone5, but doing the expected doesn't win outperformance in the stock market. The unexpected event was a mapping app that bombed while competitor Google introduced its own tablet: the Nexus 7. Corporate capital spending slowdowns due to fiscal cliff or China concerns hit Intel performance. Overweight positions in both Google and Intel served to bookend the active returns of holdings in the Sector Fund.

Roy Wellington stated that the International Equity managers combined to exceed the benchmark by a modest amount. Five managers beat their benchmarks and the attribution reveals that the quarter was won or lost on stock selection and Japan weighting (Japan was the only country down). Mr. Wellington traveled to London and Edinburgh in October to visit managers and attend a global investment conference. He visited some small cap and emerging market managers and also personnel at current managers who do not travel to Nashville.

Roy Wellington noted that the Russell 2000 Equity Futures program was wound down as the Small Cap Index Fund was created. The equity futures did an admirable job of tracking the Russell 2000 Index but the domestic equity benchmark is the S&P 600 for small cap stocks. That mismatch proved to be enough to make it worthwhile to create and maintain a dedicated small cap index fund. The transition was completed in October.

Mr. Palmer reviewed the performance of the Fixed Income portfolios. He noted that the Domestic Fixed Income Portfolio had a positive quarter, outperforming the benchmark by 75 basis points. The component portfolios all contributed to the quarterly outperformance. Spread tightening was the dominant driver of performance as the market's perception of the announcement of quantitative easing signaled a risk on environment. The sector allocations and positioning of the portfolio were little changed during the quarter but subsequently allocations to corporate and mortgage backed securities have been pared back modestly. Mr. Palmer commended Mr. Kim for his strong performance since the transition to a new benchmark for the Corporate Portfolio and Mr. Picunko for the consistent, low risk performance of the Mortgage Portfolio.

Mr. Palmer noted that underweight exposures to the Euro and the Yen were positive contributors to the performance of the International Fixed Income portfolio and reported that this portfolio will provide some of the funds for the new Emerging Markets Equity Portfolio.

While discussing the index matching performance of the Inflation Indexed portfolio, Mr. Palmer compared the return prospects of Treasury Inflation Protected (TIP) securities to Levered loans. He explained that because of the much higher yield in levered loans and strong inflation protection of the class the Strategic Lending Portfolio will likely focus on Loans as its first area of investment. Funding for the Strategic Lending Portfolio will largely come from the TIPs portfolio.

Mr. Palmer provided a summary of the use of derivatives and TBA mortgage securities in the fixed income portfolios during the quarter.

Peter Katseff provided an update on the Real Estate portfolio. The portfolio continues to perform well and is expected to show an appreciation in value when real estate assets are appraised at the end of the calendar year. He noted there had been a significant amount of acquisitions in 2012. Approximately 60% of these acquisitions are apartment communities and 40% are office buildings. Further, he noted that all of these acquisitions were either meeting or exceeding expectations. Mr. Katseff anticipates the Real Estate Portfolio to be 5% to 5 ½% of total plan assets by the end of 2013.

Lamar Villere provided an update on the Private Equity Portfolio. Mr. Villere stated that performance has been solid overall, but cautioned that it is still too early to evaluate that performance. Mr. Villere noted that areas of focus for 2013 will be smaller sized buyout funds as well as the addition of other credit strategies to the portfolio.

Tim McClure gave an update on trading and operations for the quarter. Tim congratulated Casey Wright, who was promoted to Assistant Cash Manager. This has created an opening in the Operations area. Trading volume was down slightly during the quarter and only five percent of the trades were momentum trades, therefore trading costs were up for the quarter due to the large number of illiquid trades. Implicit trading costs were down for the fourth consecutive quarter. Based on the trading volume for the quarter, this resulted in savings of over \$7.5 million. There should be more opportunities to improve efficiency as staff becomes more familiar with the data being received through trading cost analysis.

The members of the Investment Advisory Council had no additional questions and Chairman Stadler asked for a motion to adjourn. Fred Crown motioned to adjourn the meeting and the motion was seconded by Carol Womack and unanimously approved. The meeting adjourned at 11:30 a.m.

Performance Review

December 2012

Absolute comparison

- 1 quarter return of 1.0%
- 1 year return of 12.7% (beat 31% of peer funds)
- 3 year return of 9.6% (beat 73% of peer funds)
- 5 year return of 3.7% (beat 87% of peer funds)
- 10 year return of 6.4%

Benchmark (relative) comparison

- Qtr return lagged allocation index by 0.3%
- 1 year return beat allocation index by 0.3%
- 3 year return beat allocation index by 0.5%
- TAA lost 24 bps for quarter (virtually all from PE)
- DFI up 46 bps in quarter, up 235 bps for year
 - 8.6% return for year, 8.2% for 5 years
- DE lost 40 bps in quarter, down 78 bps for year
 - 10 year number 7.3%
- IE lost 40 bps in quarter, up 277 bps for year

Peer comparison

- 1 quarter return ranked at 94% (0% = best)
- 1 year return ranked at 69% (Beat 31% of funds for 1 year)
- 3 year return ranked at 27%
- 5 year return ranked at 13% (3.7% vs. 3.2% median)

Key Initiatives

December 2012

- Asset Allocation Implementation
 - New allocation effective December 31, 2012
 - Strategic lending
 - Real estate strategy
 - Emerging market equities

- Securities Lending
 - Legal negotiations in process

- Private Equity Due Diligence

- Strategic Lending Due Diligence

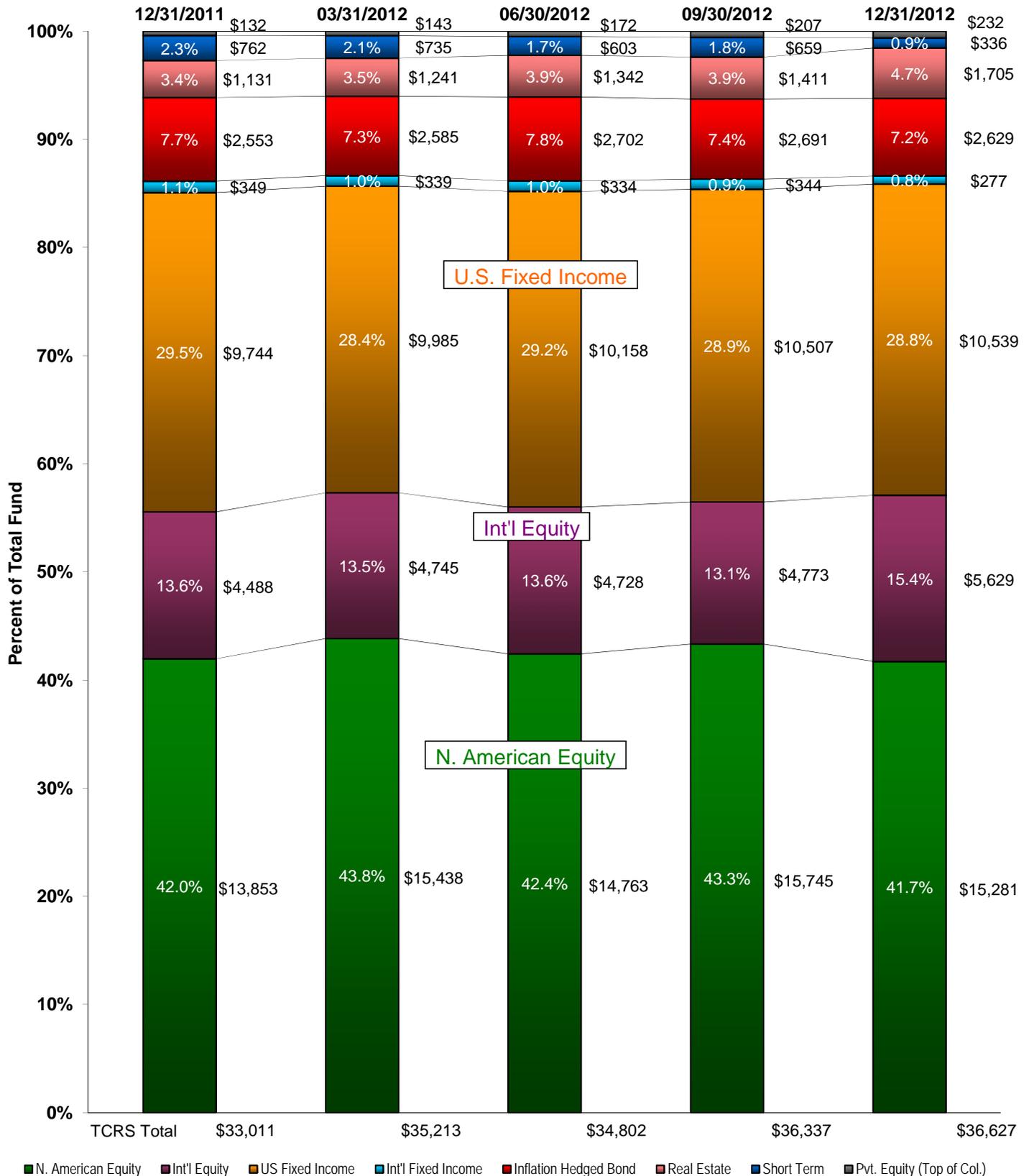
- Tactical Allocation
 - Neutral, implementing strategic changes

- Space Planning

- Personnel
 - Assistant Cash Manager
 - Private Equity Analyst
 - Real Estate Portfolio Manager
 - Domestic Equity Analyst

TCRS Asset Allocation

December 2012



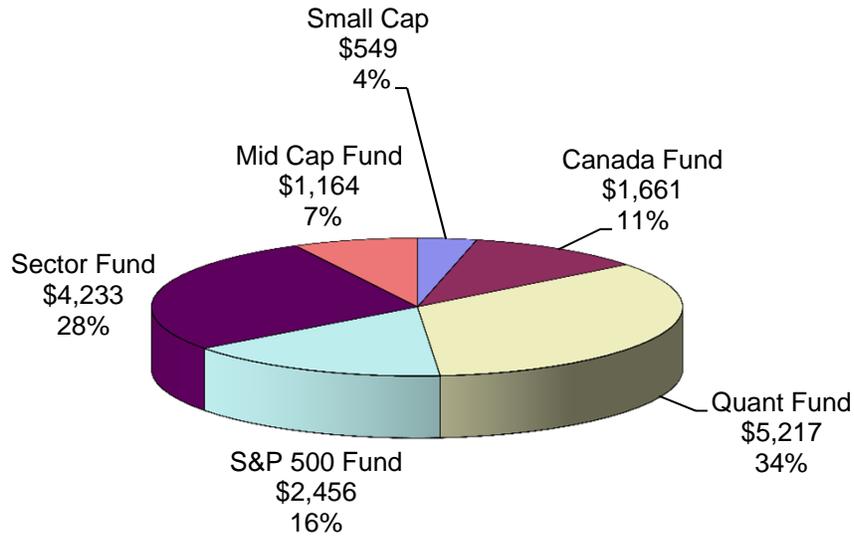
\$ = millions

Source: Strategic Investment Solutions, Inc.

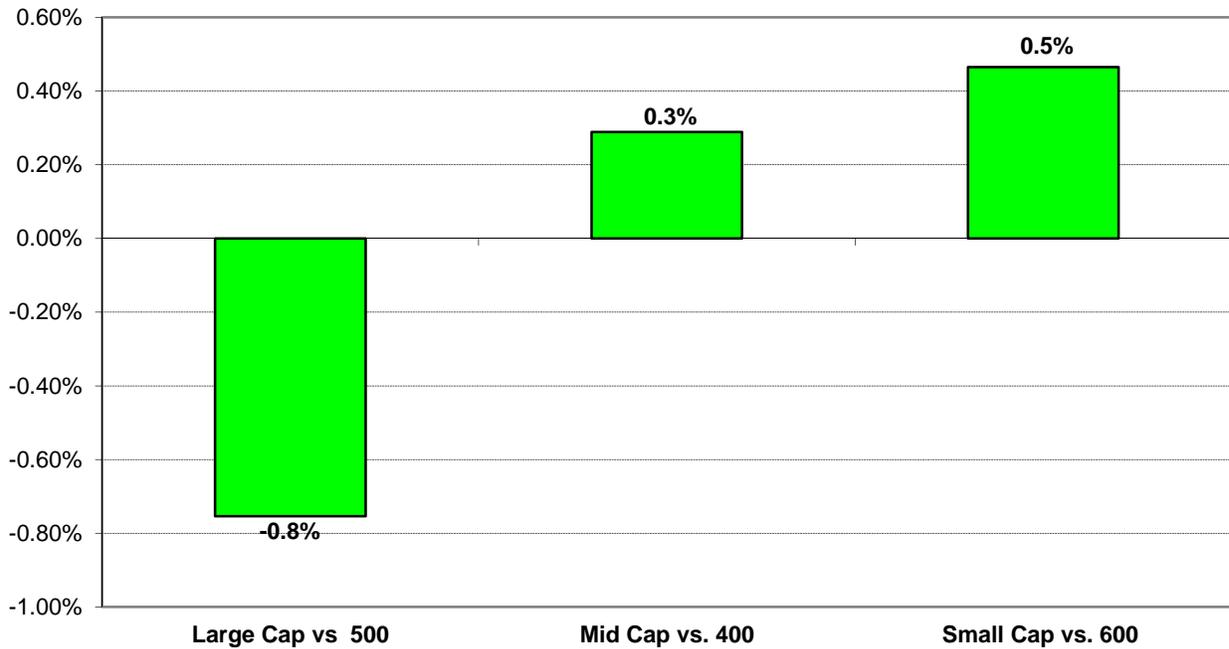
Domestic Equity Portfolio Overview

Michael Keeler, CFA

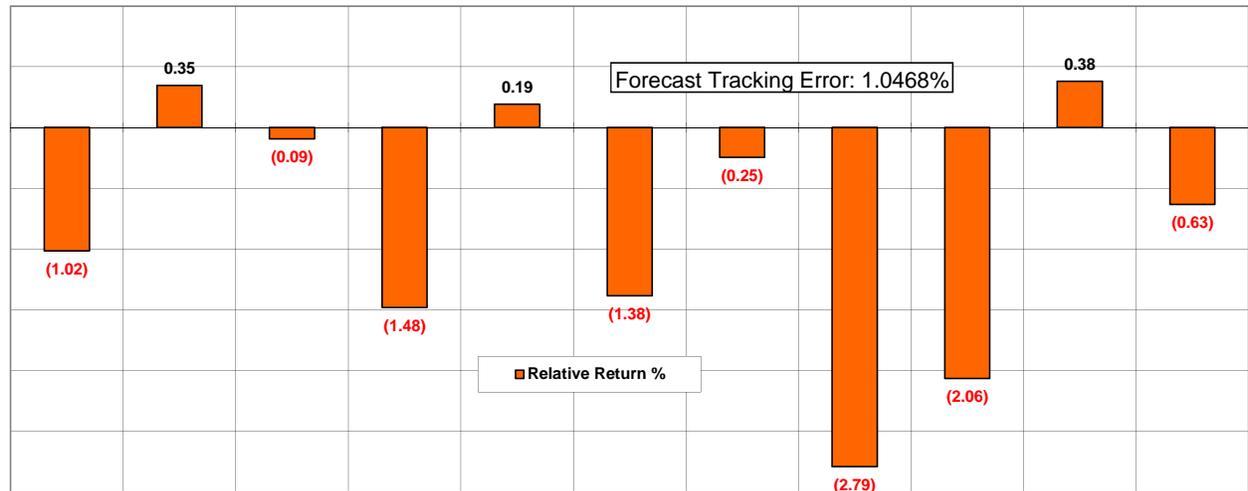
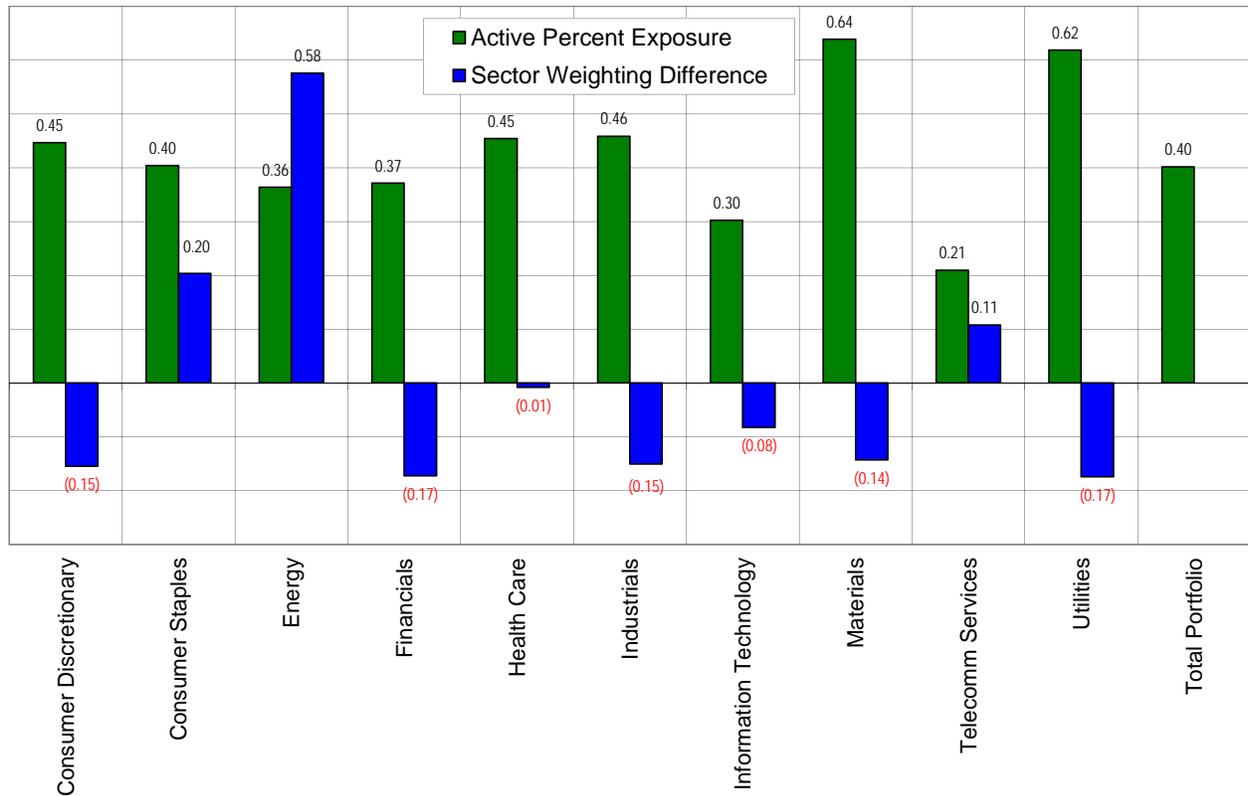
TCRS North American Equity Funds



TCRS Cap Weights vs. S & P 1500 Composite



Large Cap Quant Fund
Jim Robinson, CFA



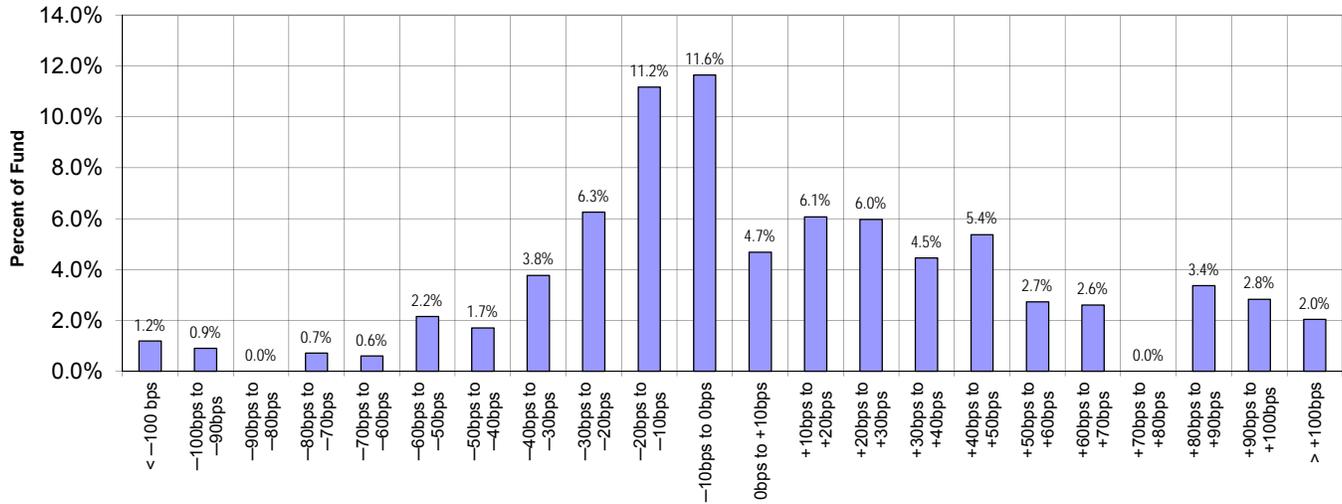
Stocks still look cheap using Merrill Lynch's stock versus bond model. At the end of December, Merrill's dividend discount model versus AAA corporate yields shows an equity risk premium of 845 bps, near the record of 891 set in July, 2012. Comparing the S&P 500's earnings yield (E/P) to real 10 year Treasury yields, the 791 bps difference also looks quite inexpensive, even versus its 896 bps peak in November of 2011.

The models performed poorly in the quarter. December was the worst month and was disappointing because we made provisions to neutralize risks.

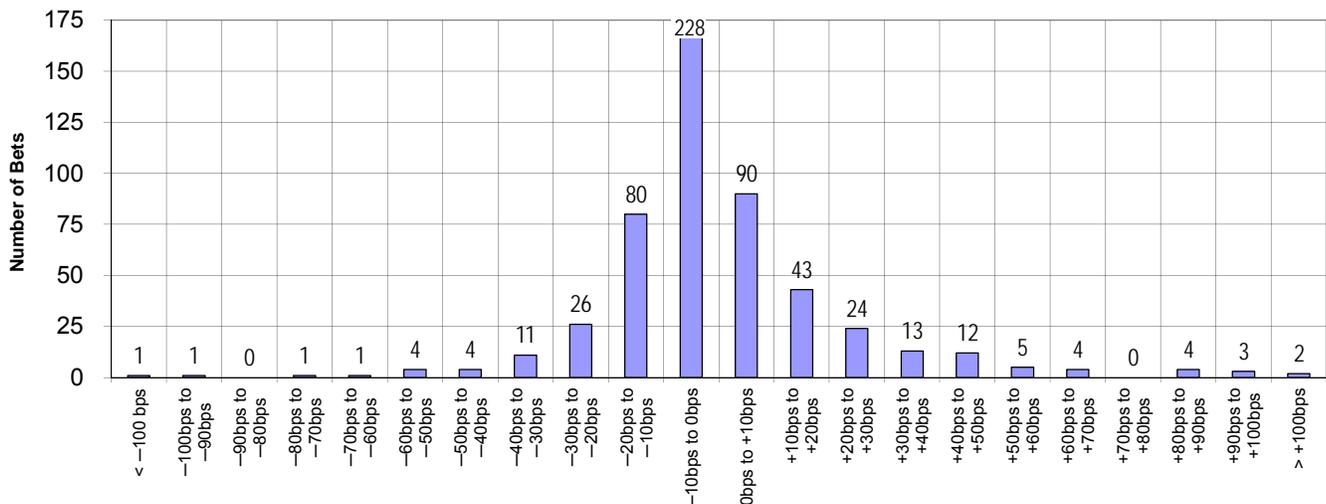
FACTOR	D1-D10 Return	3 Mo Avg IC
Quant	-1.366	-0.056
V+M	-3.170	-0.044
RV	-0.680	-0.001
EM	-0.905	-0.036
PM	-1.382	-0.075

The Quant Fund's tracking error was maintained at levels similar to that which it was lowered in previous quarters. At September 30 the tracking error was 1.0787. At 12/31 it was 1.0468, and it currently sits at 1.1160. The transfer coefficient is 24.7. Systematic or factor risk has been taken down from about 30% of the fund's total risk to around 10%.

Active Bets in Fund vs. S&P500, Grouped by Bet Sizes



Number of Individual Stocks in Bet Size Bins

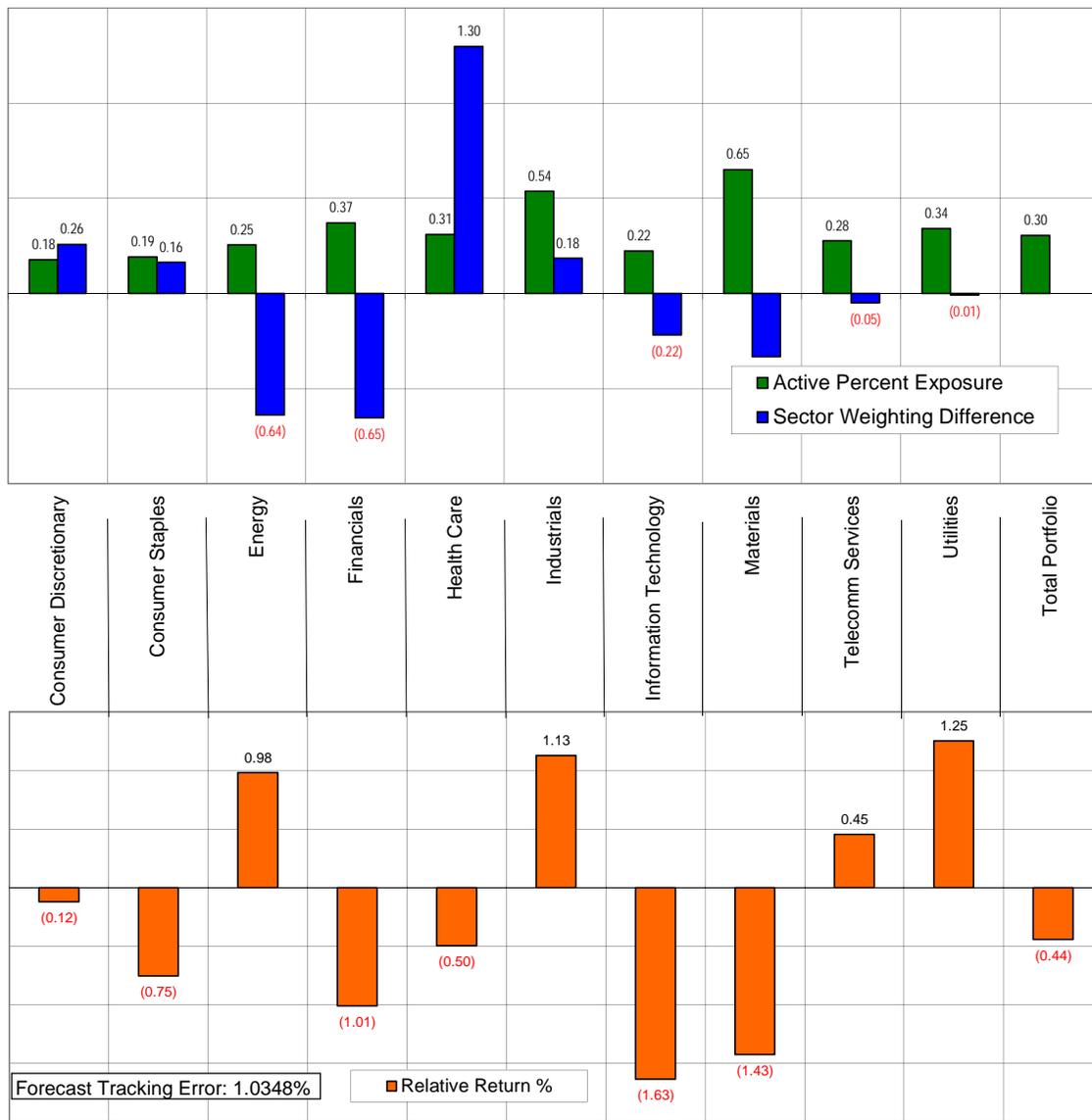


Largest Overweights by Stock in Fund

Ticker	Description	Bps Over
ORCL	Oracle Corp.	104
COP	ConocoPhillips	101
MDT	Medtronic Inc.	97
MSFT	Microsoft Corp.	95
TGT	Target Corp.	91
PEP	PepsiCo Inc.	90
UNH	UnitedHealth Group Inc.	83
TRV	Travelers Cos. Inc.	82
GIS	General Mills Inc.	82
PFE	Pfizer Inc.	68
VZ	Verizon Communications Inc.	67
YHOO	Yahoo! Inc.	64
ABT	Abbott Laboratories	62
UPS	United Parcel Service Inc. CI B	59
AON	AON Plc	57
PPG	PPG Industries Inc.	53
USB	U.S. Bancorp	53
NOC	Northrop Grumman Corp.	52
M	Macy's Inc.	49
AFL	AFLAC Inc.	49

Largest Underweights by Stock in Fund

Ticker	Description	Bps Under
JNJ	Johnson & Johnson	-119
BRK.B	Berkshire Hathaway Inc. CI B	-91
AMZN	Amazon.com Inc.	-71
IBM	International Business Machines Co	-60
CVX	Chevron Corp.	-58
UTX	United Technologies Corp.	-54
KO	Coca-Cola Co.	-52
GOOG	Google Inc. CI A	-51
CAT	Caterpillar Inc.	-46
QCOM	QUALCOMM Inc.	-43
BMY	Bristol-Myers Squibb Co.	-42
BA	Boeing Co.	-40
LLY	Eli Lilly & Co.	-40
EBAY	eBay Inc.	-37
MDLZ	Mondelez International Inc. CI A	-36
MO	Altria Group Inc.	-35
ESRX	Express Scripts Holding Co	-35
COST	Costco Wholesale Corp.	-34
AXP	American Express Co.	-33
DD	E.I. DuPont de Nemours & Co.	-33

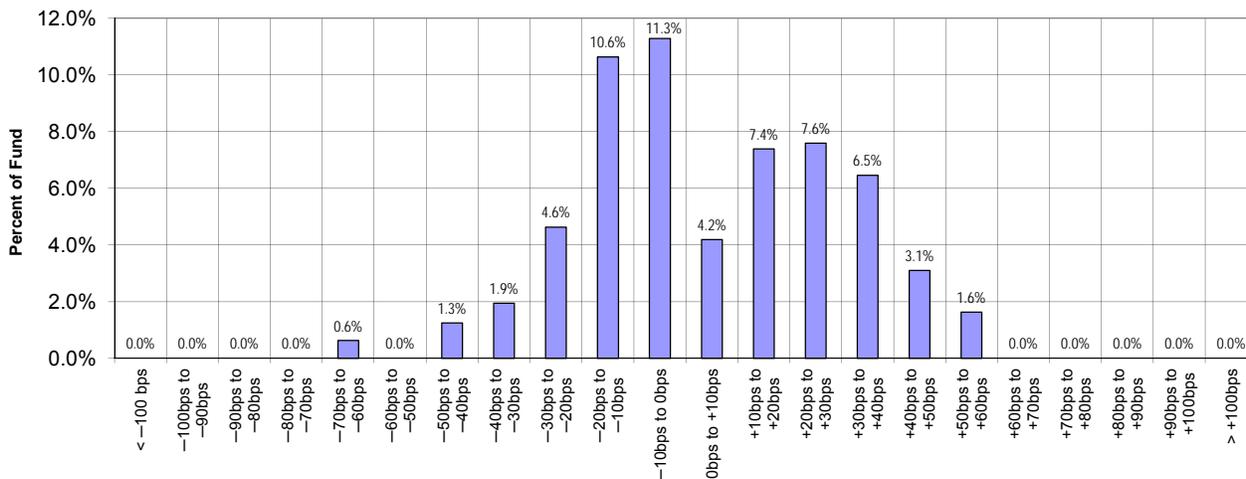


The fourth quarter equity market environment was dominated by the impending fiscal cliff, the presidential election and the Fed's adoption of open ended quantitative easing. Meanwhile the economic indicators were coming in better than expected overall and corporate profitability continued at a high level despite the preliminary GDP report saying there was no growth in the quarter. Sectors performed like a new economic cycle was beginning, except for Information Technology.

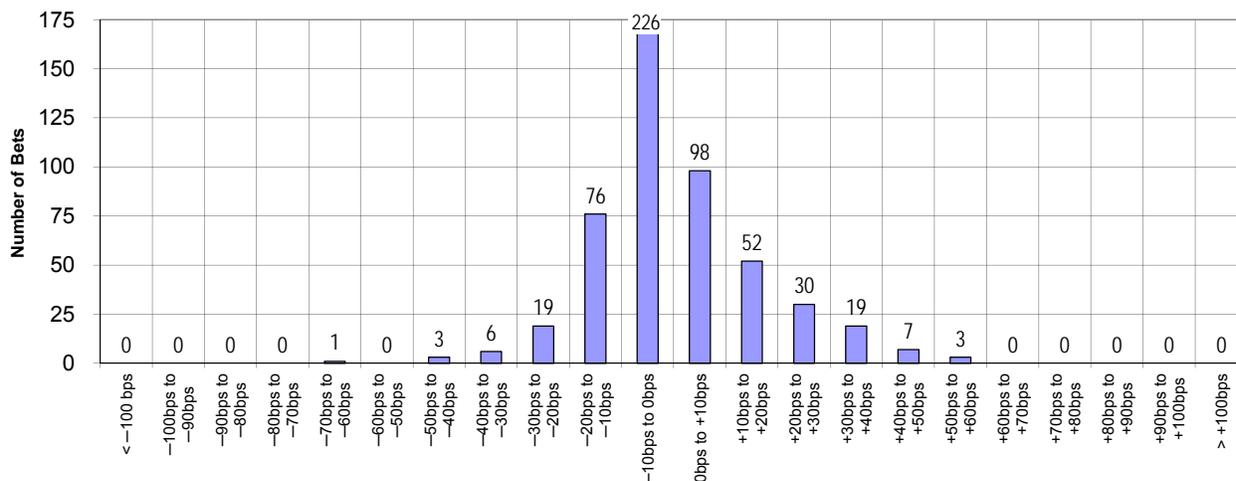
The past financial crises still looms large. Consumers that have jobs are ready to borrow to buy cars and houses again but banks that are still working off old bad loans. Companies cannot read the government's intentions on taxing and spending. The negatives are large: a hike in the payroll tax, higher gasoline prices and recession in Europe. Asia seems ready to buy aircraft, but the new Dreamliner is grounded at the moment. America's greatest windfall, the boom in domestic hydrocarbon production, seems to have attracted adequate capital investment while the longer term derivative adjustments need time to work out.

The Sector Fund watched from the sidelines while Bank of America, the present home of mortgage bad boy Countrywide, rallied despite fines and legal settlements and a lack of regular business. The Sector Fund benefitted from new energy beneficiaries like mid-continent refiner like HollyFrontier, which continues to amaze analysts even as new pipeline capacity is put in place to bring oil to more distant markets.

Active Bets in Fund vs. S&P500, Grouped by Bet Sizes



Number of Individual Stocks in Bet Size Bins

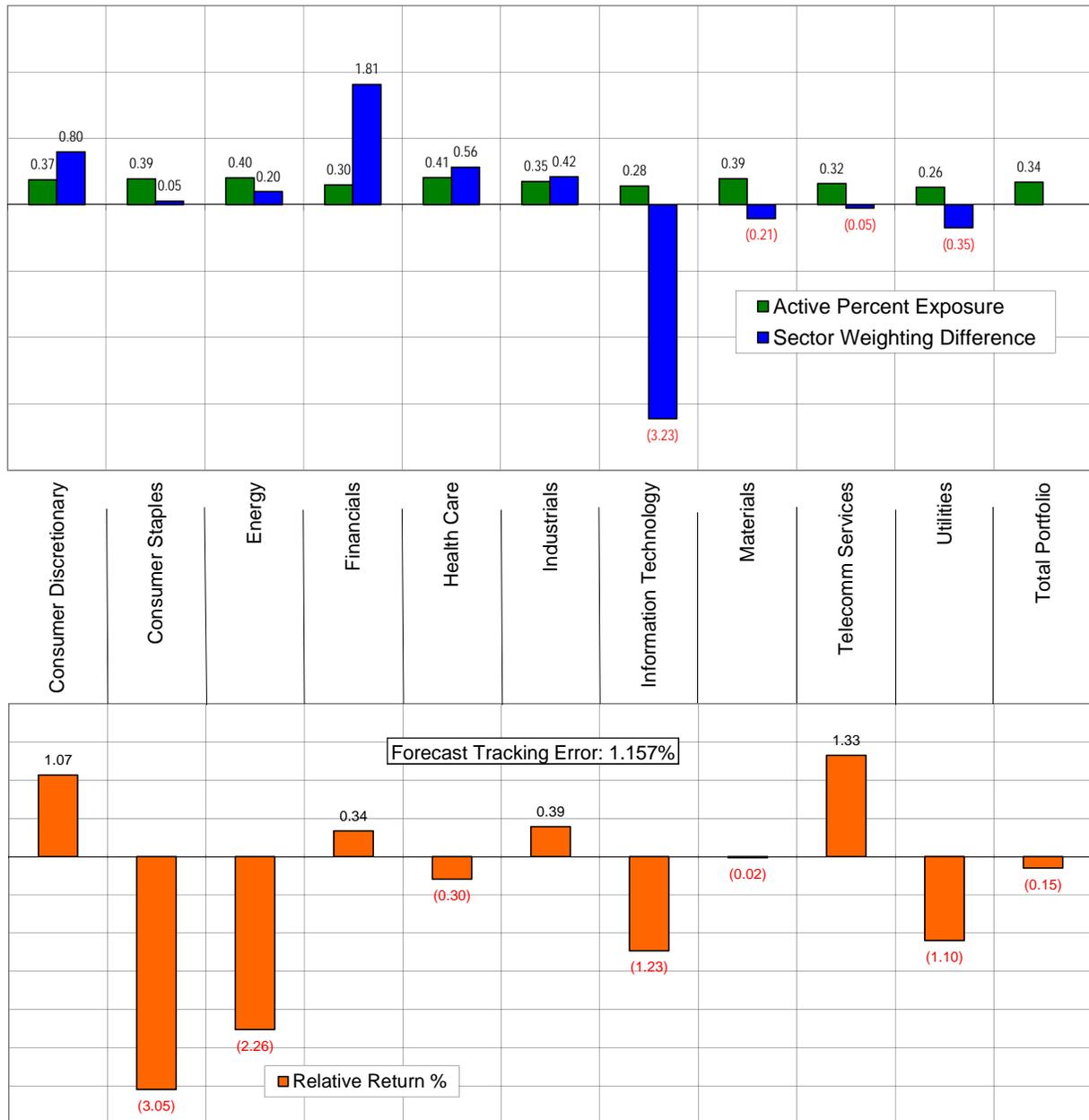


Largest Overweights by Stock in Fund

Ticker	Description	Bps Over Index Wt
SPW	SPX Corp.	56
IBM	International Business Machines Co	56
HON	Honeywell International Inc.	52
GE	General Electric Co.	50
AAPL	Apple Inc.	48
MPC	Marathon Petroleum Corp.	47
ORCL	Oracle Corp.	44
HUB.B	Hubbell Inc. Cl B	42
BCE	BCE Inc.	41
DFS	Discover Financial Services	40
AMT	American Tower Corp	37
TSO	Tesoro Corp.	37
HFC	HollyFrontier Corp.	36
TYC	Tyco International Ltd.	35
INTC	Intel Corp.	35
MRK	Merck & Co Inc	35
XOM	Exxon Mobil Corp.	35
CF	CF Industries Holdings Inc.	35
DOV	Dover Corp.	34
ETN	Eaton Corporation PLC	34

Largest Underweights by Stock in Fund

Ticker	Description	Bps Under
BRK.B	Berkshire Hathaway Inc. Cl B	-63
AXP	American Express Co.	-44
AIG	American International Group Inc.	-41
V	Visa Inc.	-41
EBAY	eBay Inc.	-35
JNJ	Johnson & Johnson	-34
BAC	Bank of America Corp.	-33
DD	E.I. DuPont de Nemours & Co.	-33
DOW	Dow Chemical Co.	-30
EMR	Emerson Electric Co.	-30
CL	Colgate-Palmolive Co.	-29
VZ	Verizon Communications Inc.	-28
OXY	Occidental Petroleum Corp.	-28
BMJ	Bristol-Myers Squibb Co.	-27
DE	Deere & Co.	-27
EOG	EOG Resources Inc.	-26
DHR	Danaher Corp.	-26
PX	Praxair Inc.	-26
UPS	United Parcel Service Inc. Cl B	-25
CAT	Caterpillar Inc.	-25



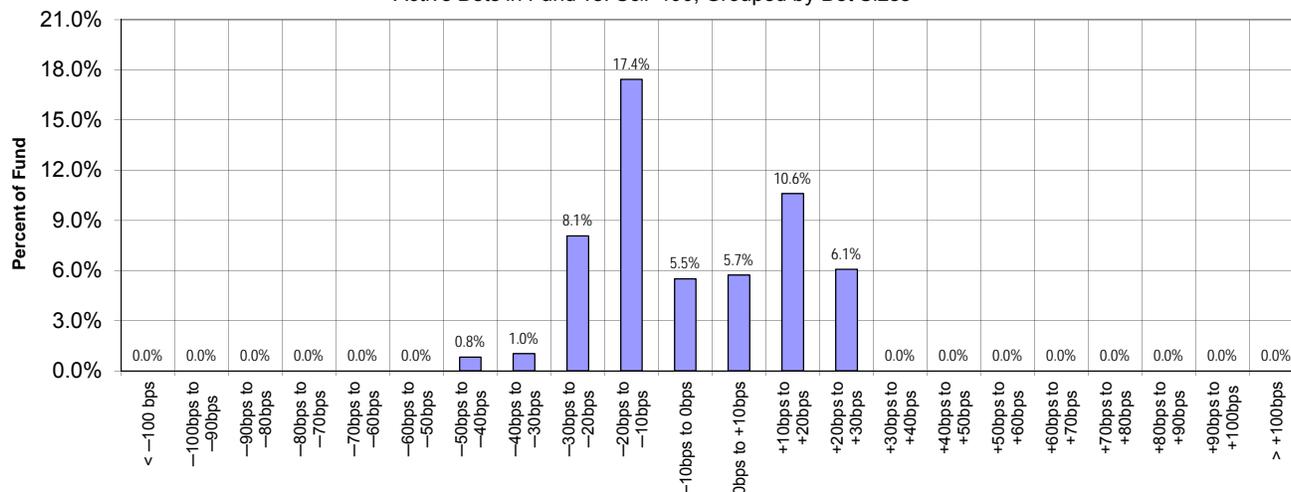
The U.S. economy is still in an expansion phase thanks largely to continuing central bank policy. However, we appear to be due for at least a pause if not a deceleration which could be occurring now, reducing economic growth prospects through the end of the 1st half of the calendar year.

The global outlook is improving. Europe looks pretty bad but at least does not appear to be getting much worse while the Chinese economy is showing signs of life. Japan elected a new government, one which already appears to be more proactive in terms of economic stimulus.

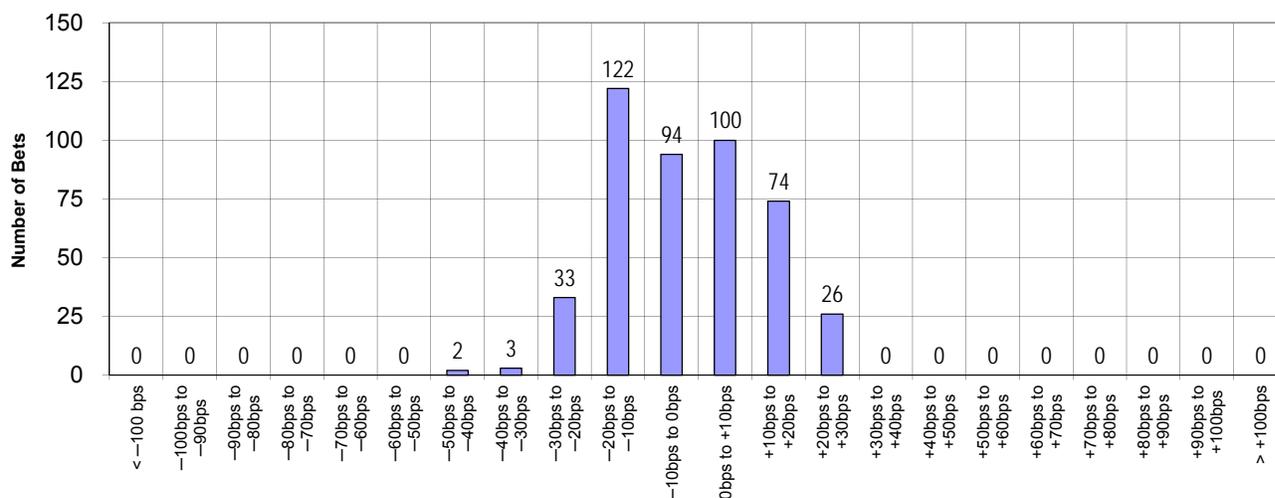
Stocks appear somewhat attractive even considering the recent rally as returns on competing alternatives remain low relative to dividend yield. The improving global economy is helping support liquidity strength in the capital markets.

The Mid Cap Fund lagged the S & P Mid Cap 400 primarily due to poor stock selection in the Technology and Energy sectors somewhat offset by good stock picking in the Consumer Discretionary sector. Stock selection accounted for the entire relative performance shortfall during the period as industry sector allocation was mildly positive.

Active Bets in Fund vs. S&P400, Grouped by Bet Sizes



Number of Individual Stocks in Bet Size Bins



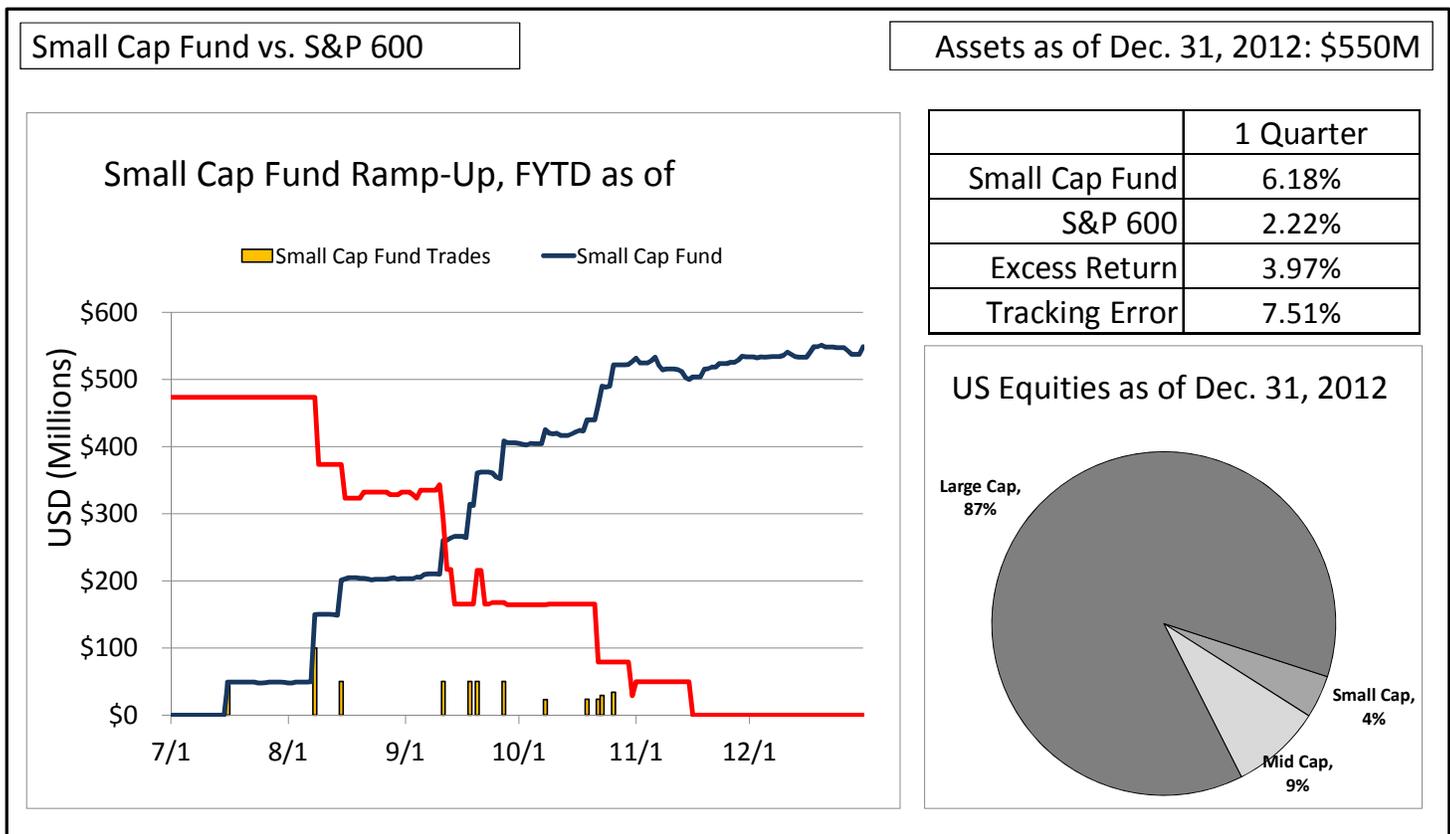
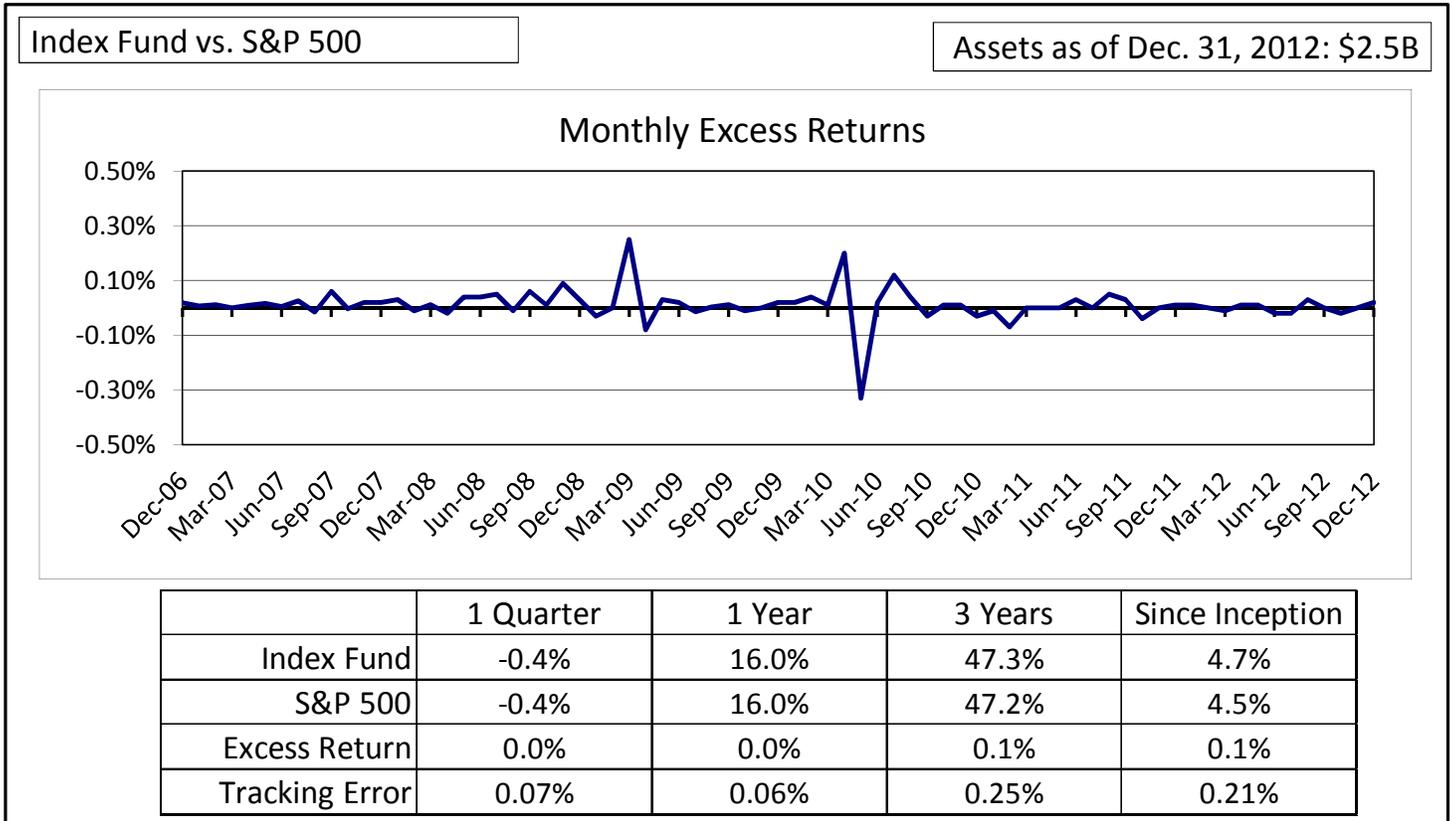
Largest Overweights by Stock in Fund

Ticker	Description	Bps Over
WRC	Warnaco Group Inc.	51
RE	Everest Re Group Ltd.	50
ALK	Alaska Air Group Inc.	45
TUP	Tupperware Brands Corp.	44
NVE	NV Energy Inc.	40
STE	STERIS Corp.	37
ENR	Energizer Holdings Inc.	36
RJF	Raymond James Financial Inc.	36
LECO	Lincoln Electric Holdings Inc.	35
RMD	ResMed Inc.	34
DLX	Deluxe Corp.	34
IEX	IDEX Corp.	34
FNF	Fidelity National Financial Inc.	33
IT	Gartner Inc.	33
CHS	Chico's FAS Inc.	33
WCG	Wellcare Health Plans Inc.	33
CHD	Church & Dwight Co.	32
EWBC	East West Bancorp Inc.	32
HSC	Harsco Corp.	32
AVY	Avery Dennison Corp.	32

Largest Underweights by Stock in Fund

Ticker	Description	Bps Under
REGN	Regeneron Pharmaceuticals Inc.	-42
RAH	Ralcorp Holdings Inc.	-42
PXP	Plains Exploration & Production Co.	-37
AMG	Affiliated Managers Group Inc.	-34
TRMB	Trimble Navigation Ltd.	-32
SPW	SPX Corp.	-30
EQIX	Equinix Inc.	-30
RAX	Rackspace Hosting Inc.	-29
GWR	Genesee & Wyoming Inc. CI A	-28
COO	Cooper Cos.	-27
EGN	Energen Corp.	-27
DCI	Donaldson Co. Inc.	-27
ATR	AptarGroup Inc.	-27
CVD	Covance Inc.	-27
CYT	Cytec Industries Inc.	-26
GGG	Graco Inc.	-26
CNQR	Concur Technologies Inc.	-26
STLD	Steel Dynamics Inc.	-25
SON	Sonoco Products Co.	-25
INT	World Fuel Services Corp.	-25

Passive Domestic Equity Funds
Daniel Crews, CFA & Derrick Dagnan, CFA



Canada Fund
Kushal Gupta, CFA

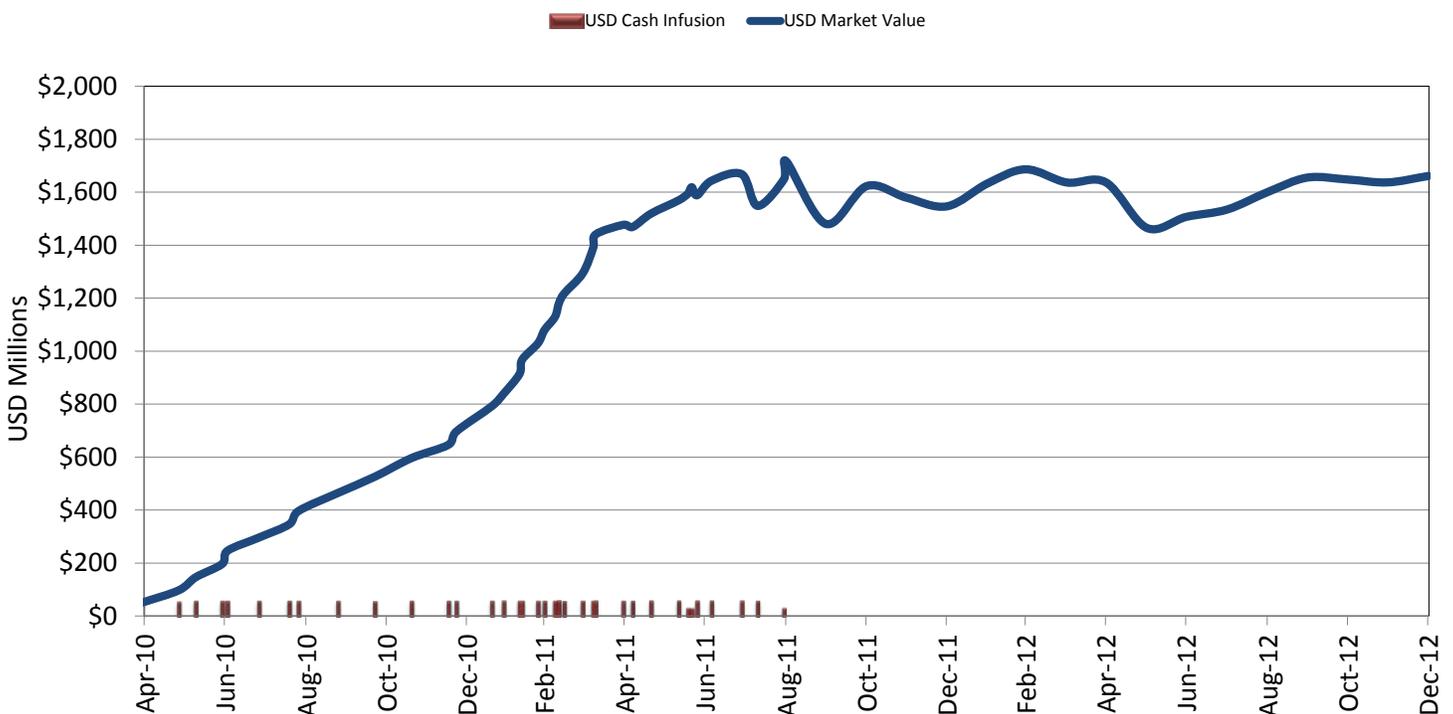
Canada Fund vs. SPTSX60 Index

Assets as of Dec. 31, 2012: \$1.66B



	1 Quarter	1 Year	3 Years	Since Inception
Canada Fund	1.11%	10.68%	-	3.70%
SPTSX60 Index	1.13%	10.51%	-	3.37%
Excess Return	-0.02%	0.17%	-	0.32%
Tracking Error	0.04%	0.16%	-	0.54%

Market Value & Cash Inflows for the Canada Fund



Manager Performance Comparison – International Equity

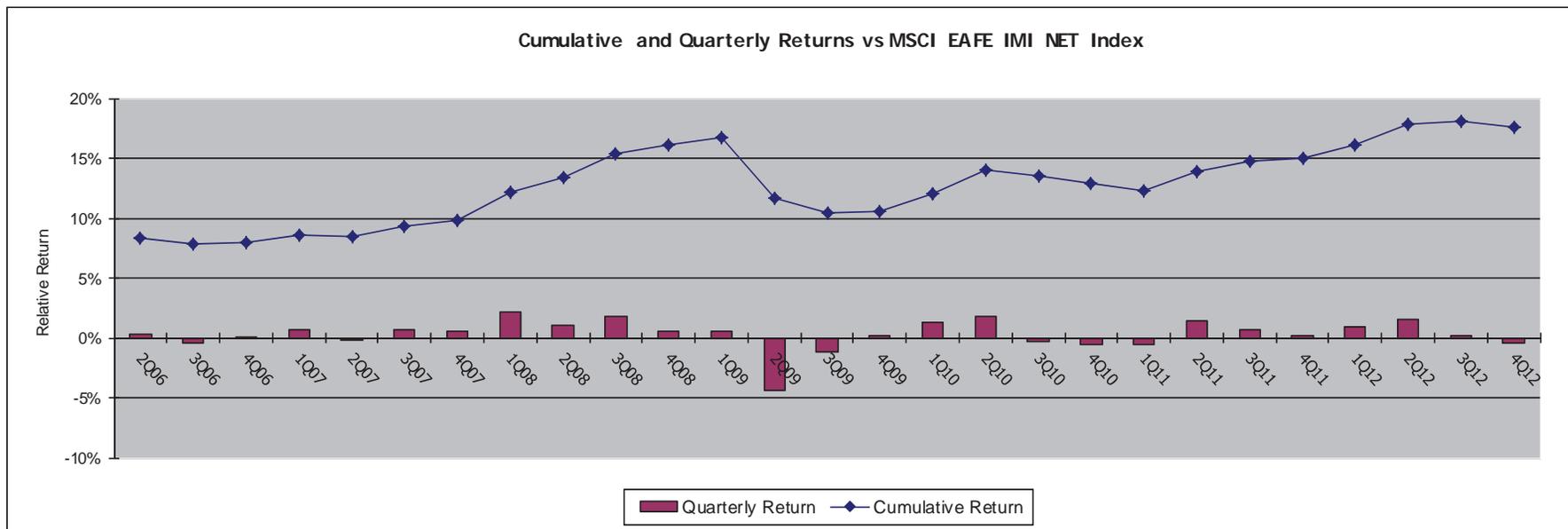
As of December 31, 2012

Manager returns for the quarter ending December 31, 2012

Manager	Manager Return	Benchmark	Benchmark Return
American Century	4.02	MSCI EAFE Small Cap NET	6.01
Baring Asset Mgmt	4.10	MSCI EAFE NET Index	6.57
GE Asset Mgmt	7.70	MSCI Europe NET Index	7.02
Marathon	4.80	MSCI EAFE NET Index ²	6.57
Pacific Indexed Port ⁵	6.39	MSCI Pacific NET Index ¹	5.90
PanAgora	6.36	MSCI EAFE NET Index	6.57
Pyramis	5.25	MSCI EAFE Small Cap NET	6.01
TT International	7.51	MSCI EAFE NET Index	6.57
Walter Scott	5.39	MSCI EAFE NET Index ⁴	6.57
International	6.10	MSCI EAFE IM Net Index ³	6.51

Manager returns for five years ending December 31, 2012

Manager	Manager Return	Benchmark	Benchmark Return
American Century		MSCI EAFE Small Cap NET	
Baring Asset Mgmt		MSCI EAFE NET Index	
GE Asset Mgmt		MSCI Europe NET Index	
Marathon	0.15	MSCI EAFE NET Index ²	-3.69
Pacific Indexed Port ⁵	-4.32	MSCI Pacific NET Index ¹	-1.87
PanAgora	-1.75	MSCI EAFE NET Index	-3.69
Pyramis		MSCI EAFE Small Cap NET	
TT International		MSCI EAFE NET Index	
Walter Scott	3.23	MSCI EAFE NET Index ⁴	-4.85
International	-0.62	MSCI EAFE IM Net Index ³	-3.30



¹ Effective as of 7/1/04; prior was MSCI AC Asia Pacific Free Index.

² Effective as of 5/19/06; prior was MSCI Europe Index.

³ Effective as of 10/1/08; prior was MSCI EAFE NET Index.

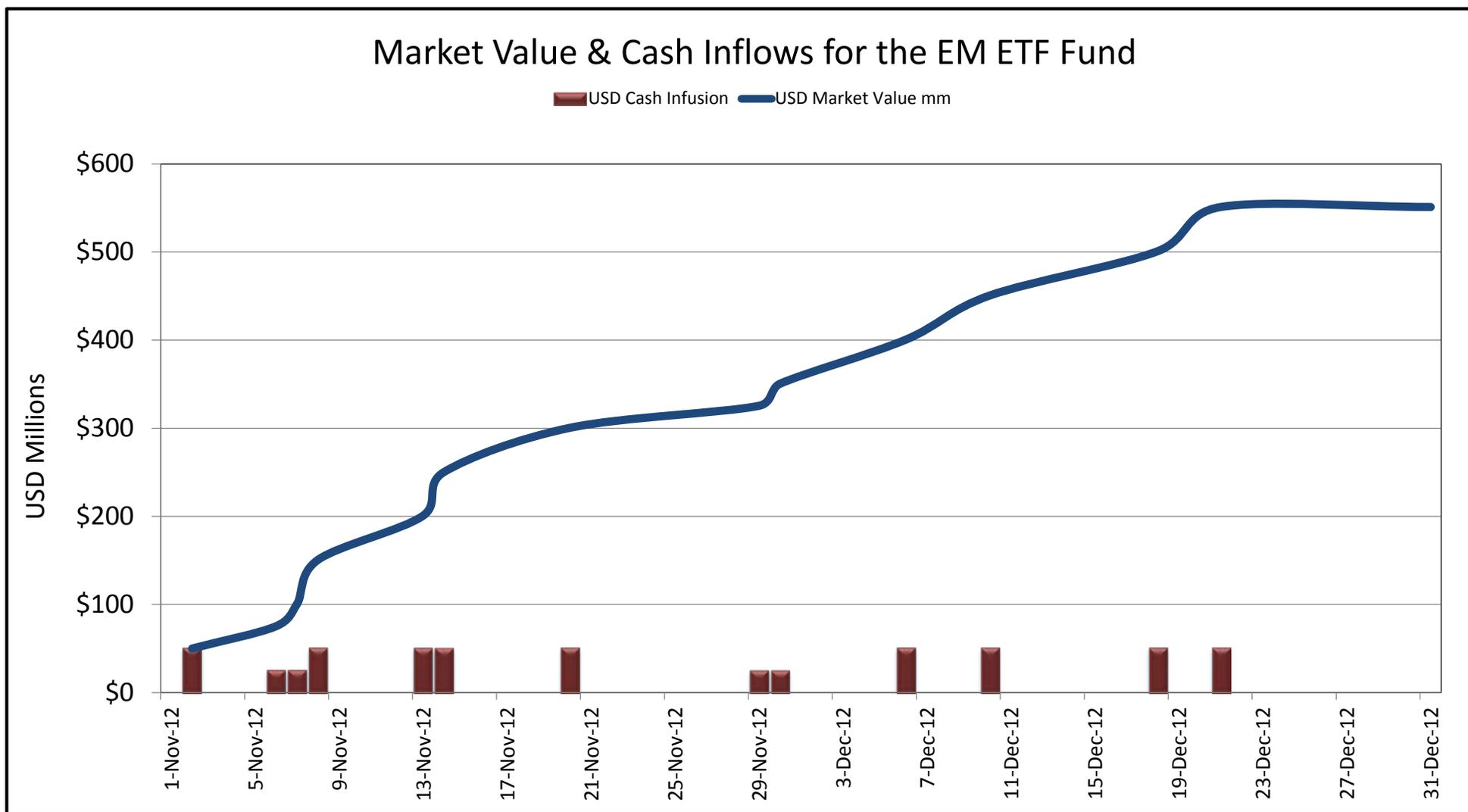
⁴ Effective as of 2/2/09; prior was MSCI Europe Index.

⁵ Performance was attributable to Amundi through 9/3/10; portfolio managed by TCRS staff afterward.

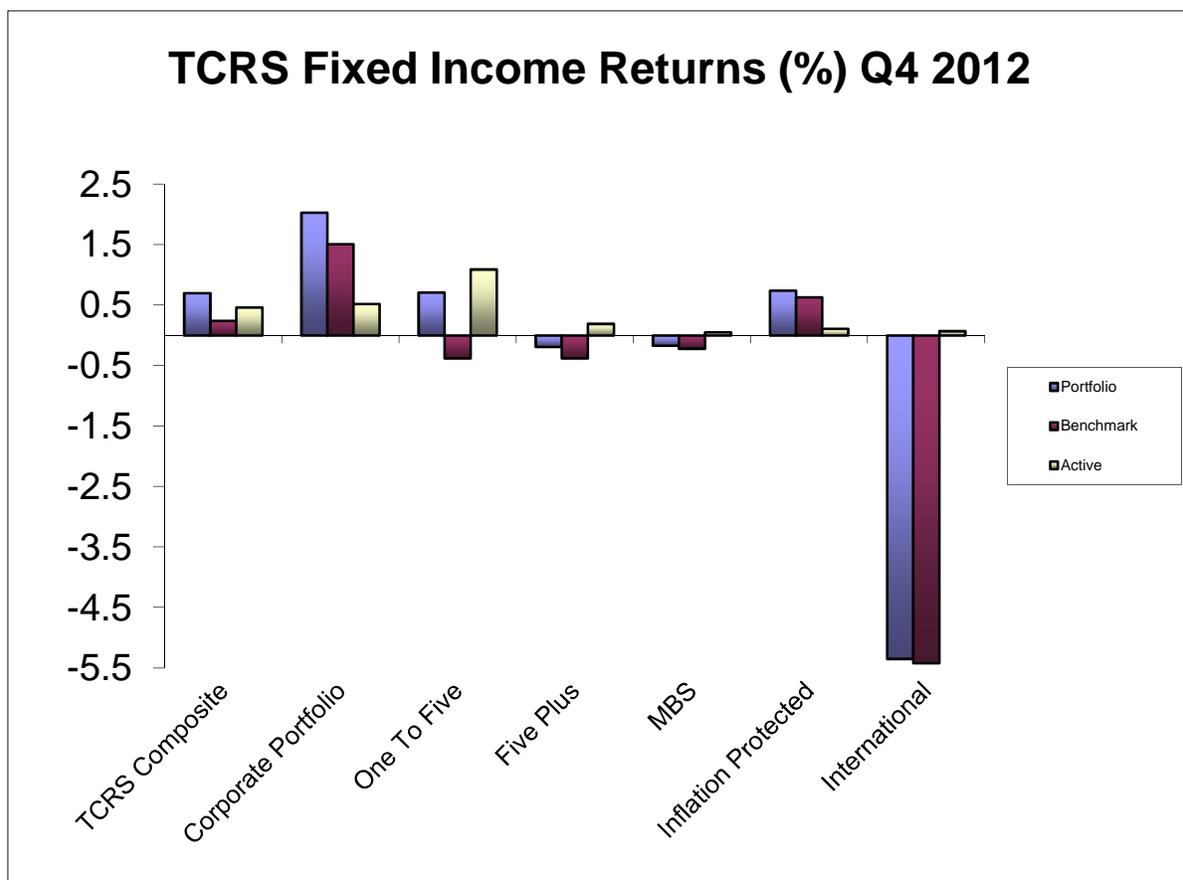
Assets as of Dec. 31, 2012: \$580.7MM

Market Value & Cash Inflows for the EM ETF Fund

■ USD Cash Infusion — USD Market Value mm

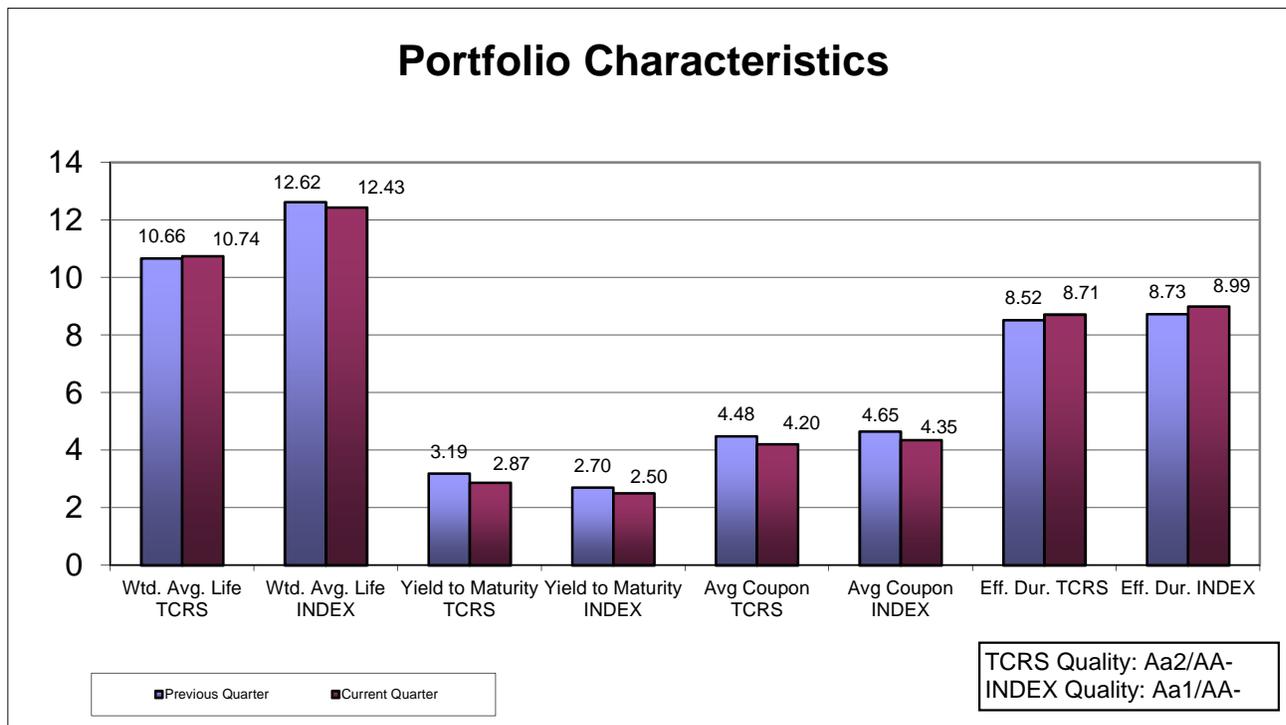


Portfolio	Value (Yield Book) (\$MMs)	Portfolio Return	Benchmark Return	Active Return
TCRS Domestic Fixed Income Composite	\$10,606	0.70	0.24	0.46
Corporate Portfolio	\$3,558	2.03	1.51	0.52
Government One To Five Years	\$1,612	0.71	(0.38)	1.09
Government Five Plus Years	\$1,923	(0.19)	(0.38)	0.19
Mortgage Portfolio	\$3,462	(0.17)	(0.22)	0.05
TCRS Inflation Protected Securities	\$2,629	0.74	0.63	0.11
TCRS International	\$277	(5.35)	(5.42)	0.07

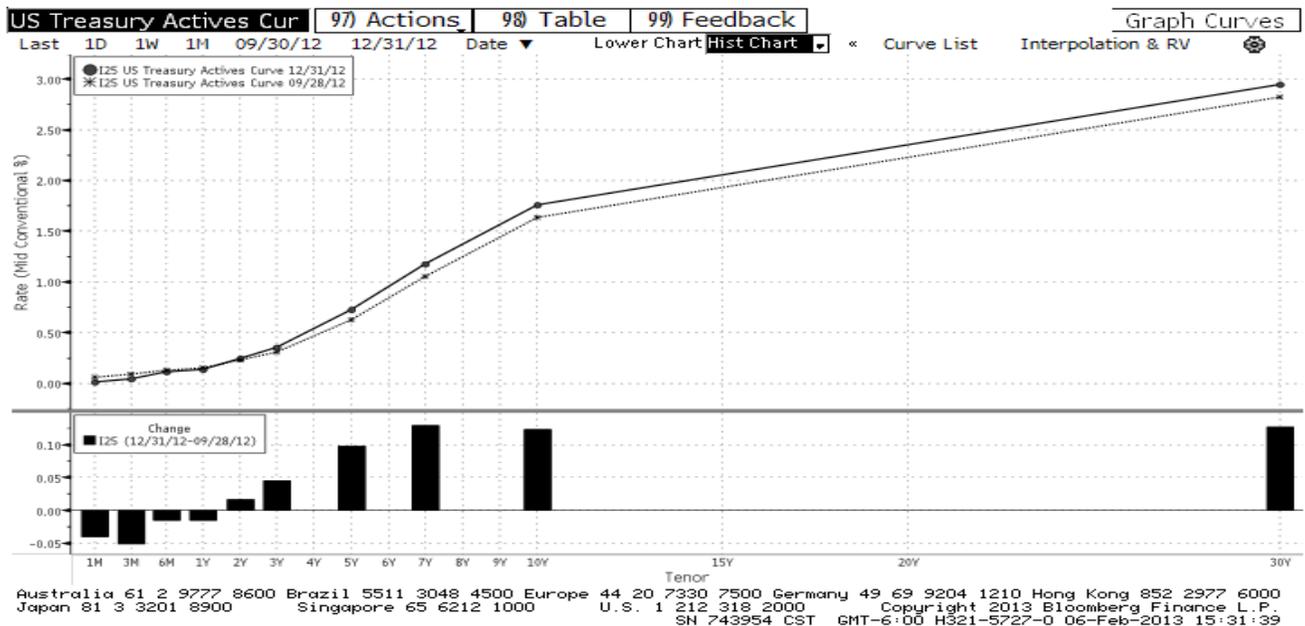


Note: All positions and market values are as of December 31, 2012

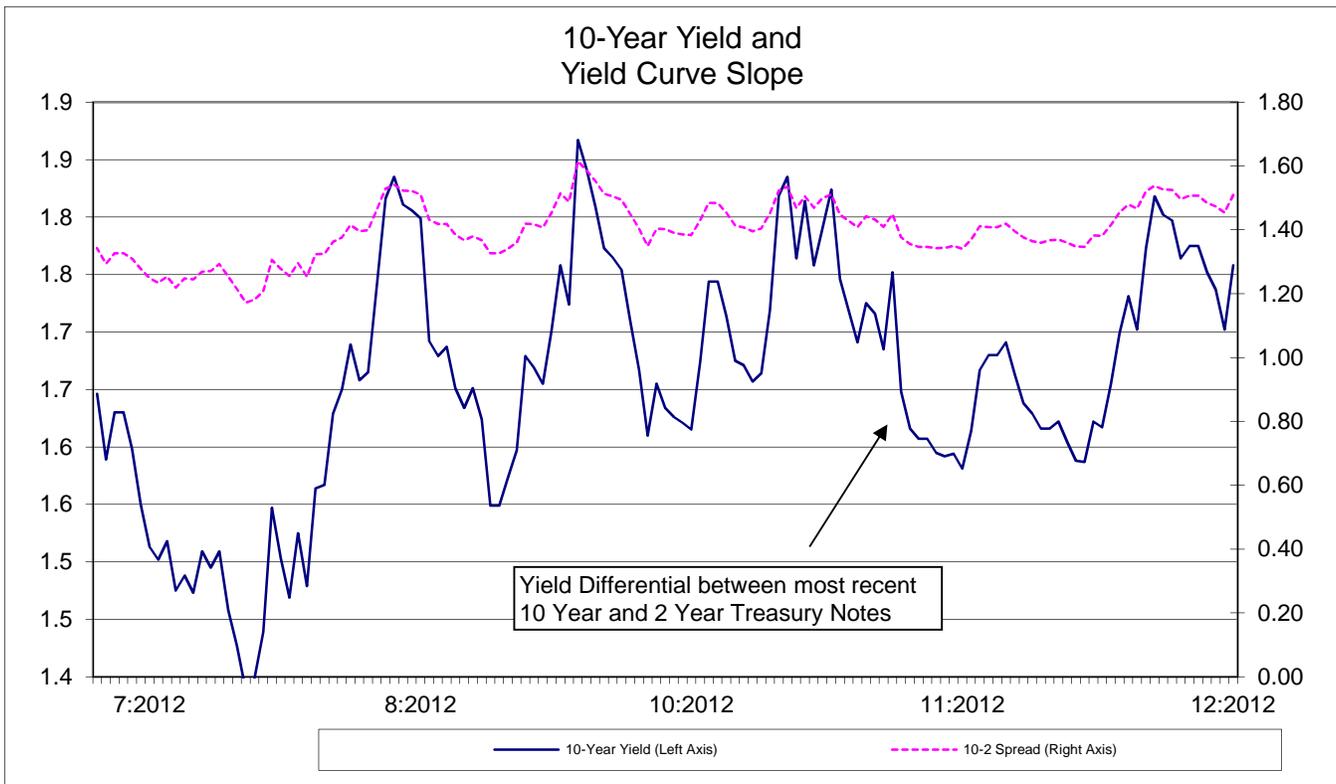
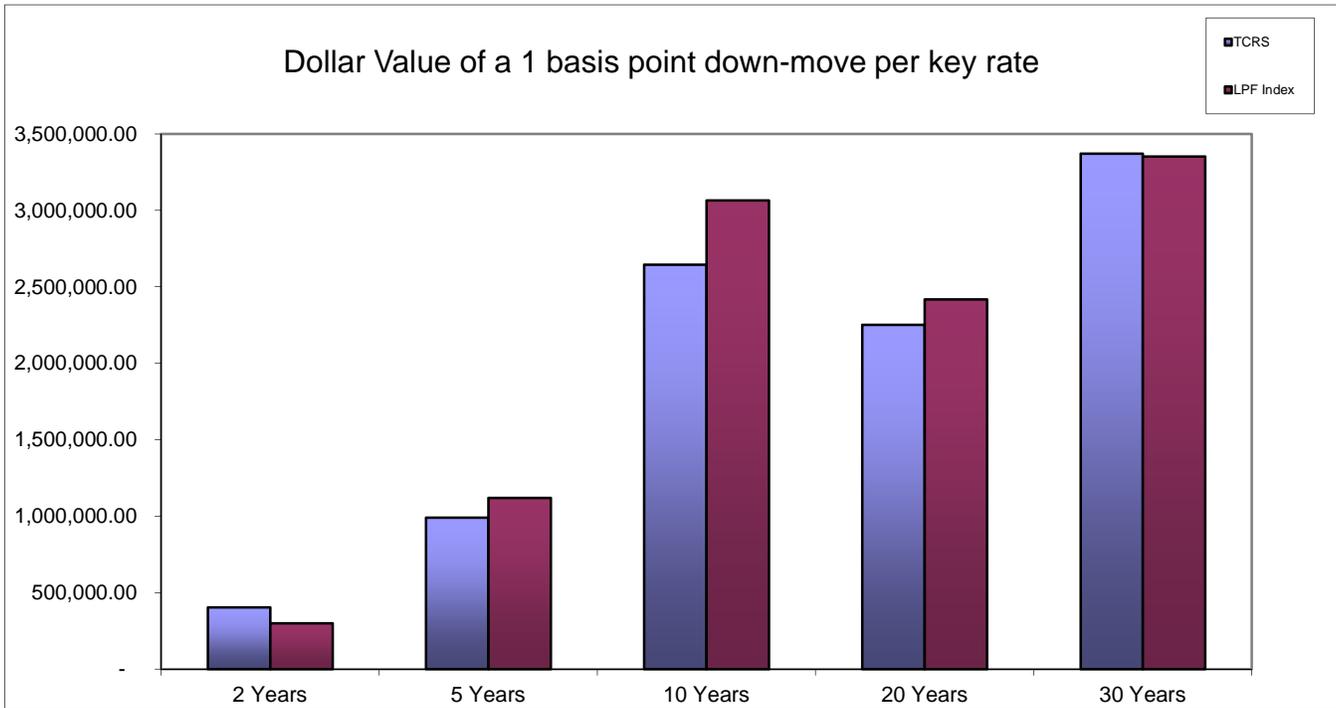
Characteristics show a decrease in duration risk as long term yields rose during the quarter



Yields rose and the curve steepened

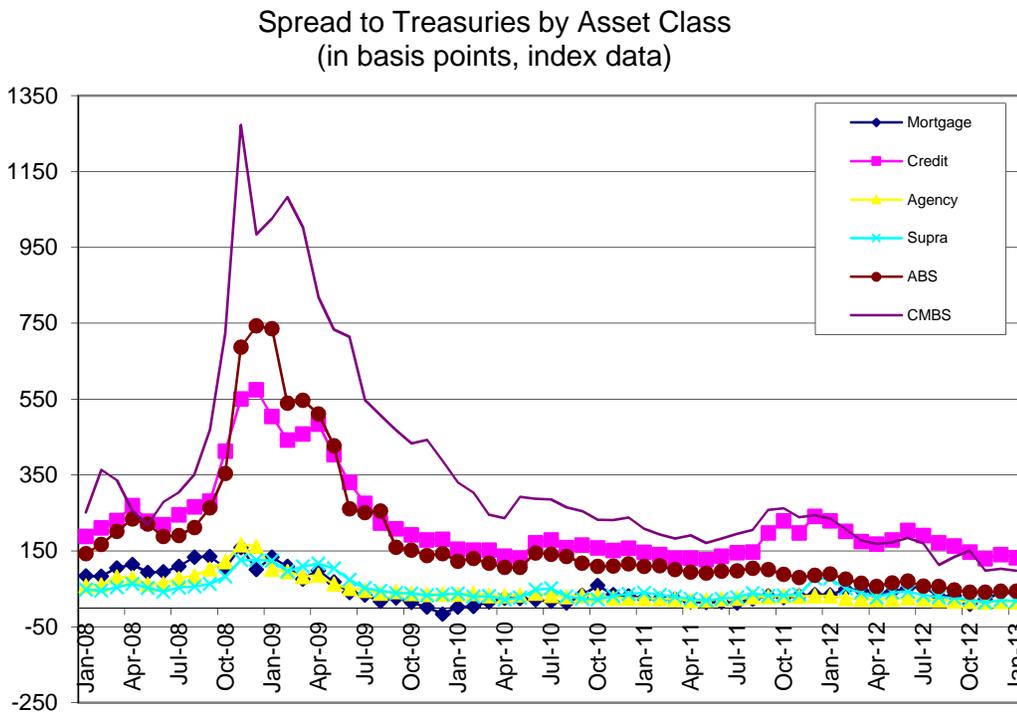
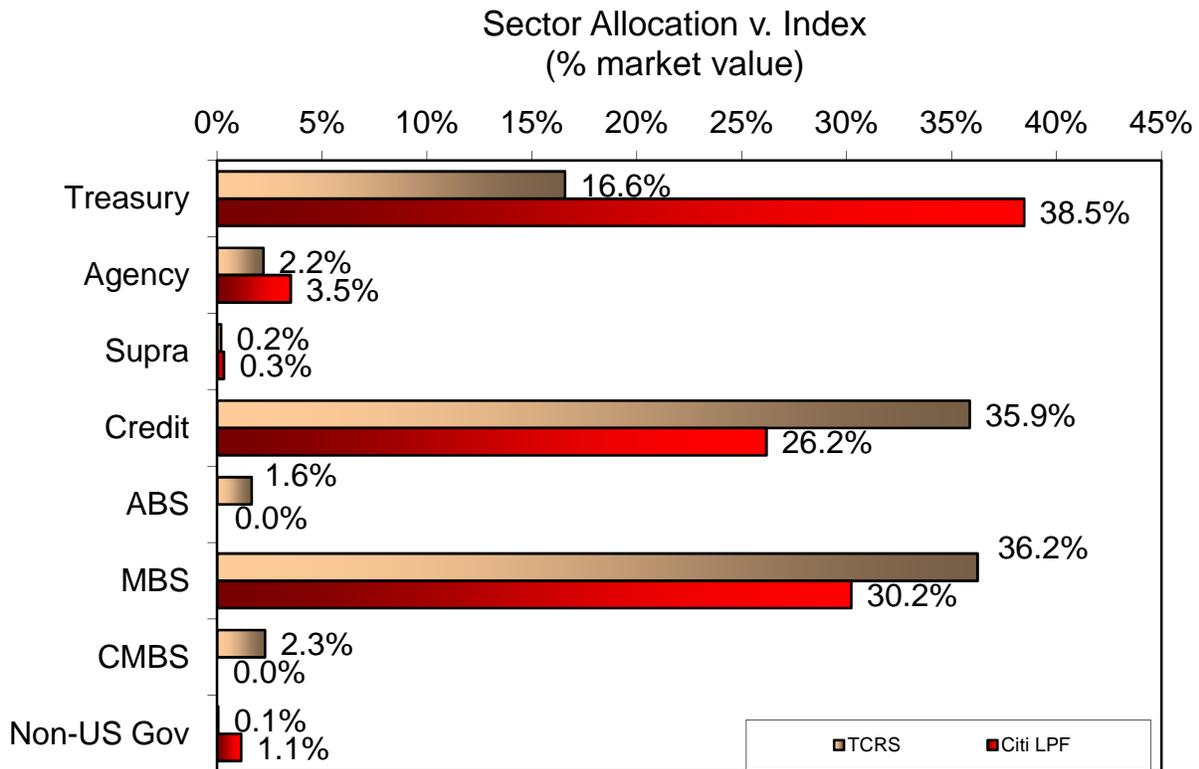


Curve positioning reflects overweight to MBS and Credit



source: Bloomberg

Added to Credit from MBS

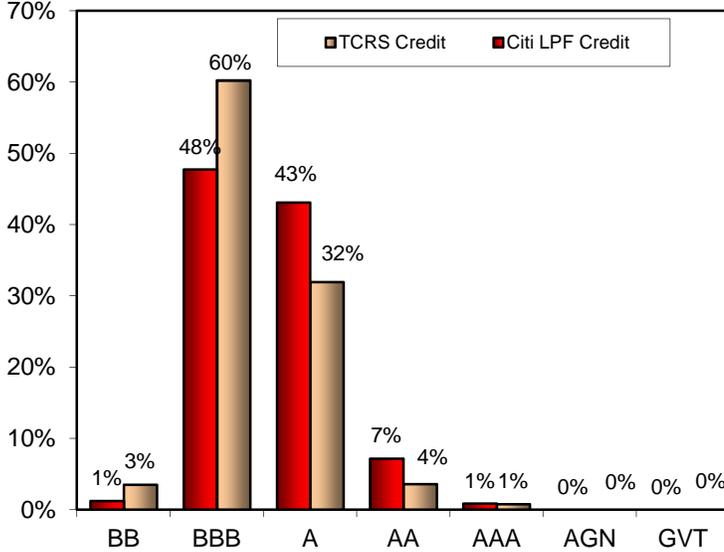


source: Yield Book

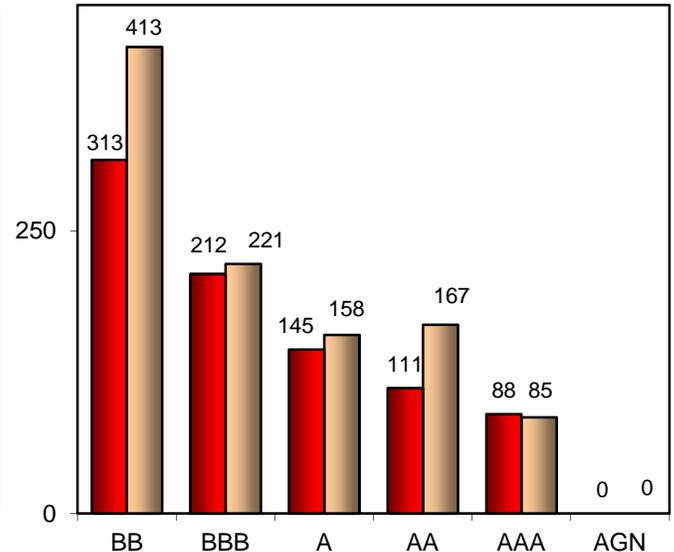
Spreads tightened during the quarter.

TCRS spreads were slightly higher than the index in higher quality sectors, reflecting expectations of continued spread tightening.

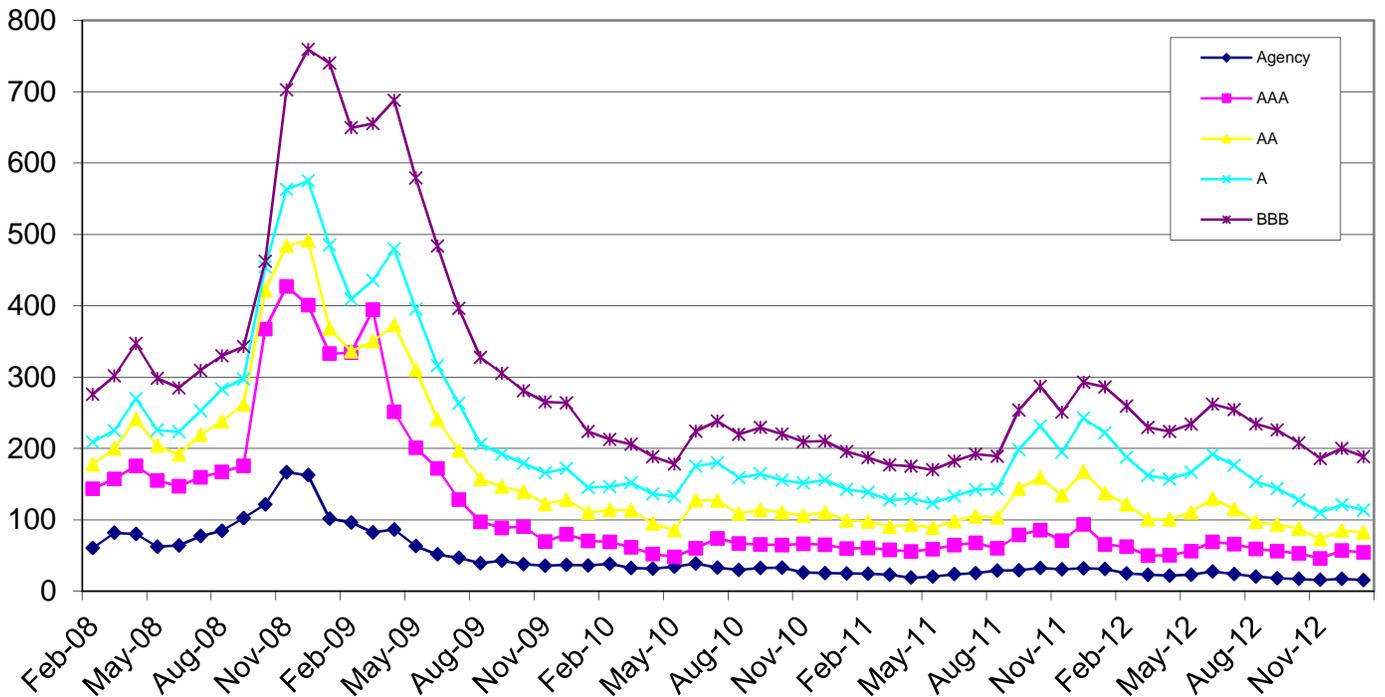
Credit Allocation v. Index
(% market value)



OAS by Credit Allocation



Spread to Treasury by Credit Rating
(in basis points, index data)

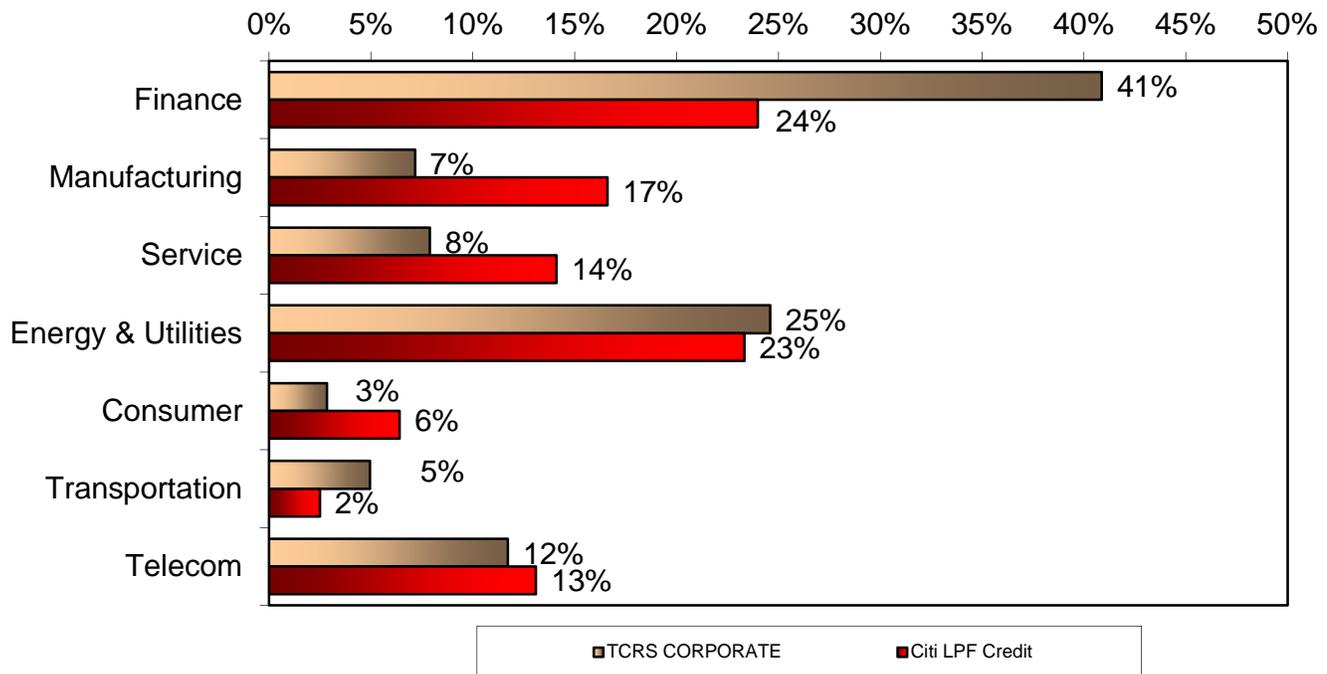


source: Yield Book

Top 5 Credit Holdings (by Market Value)	MktVal	% MktVal
CITIGROUP	152,000	1.4
GENERAL ELECTRIC CO	124,000	1.1
JPMORGAN CHASE & CO	104,000	1
GOLDMAN SACHS GROUP	93,502	0.9
COMCAST CORP	88,389	0.8

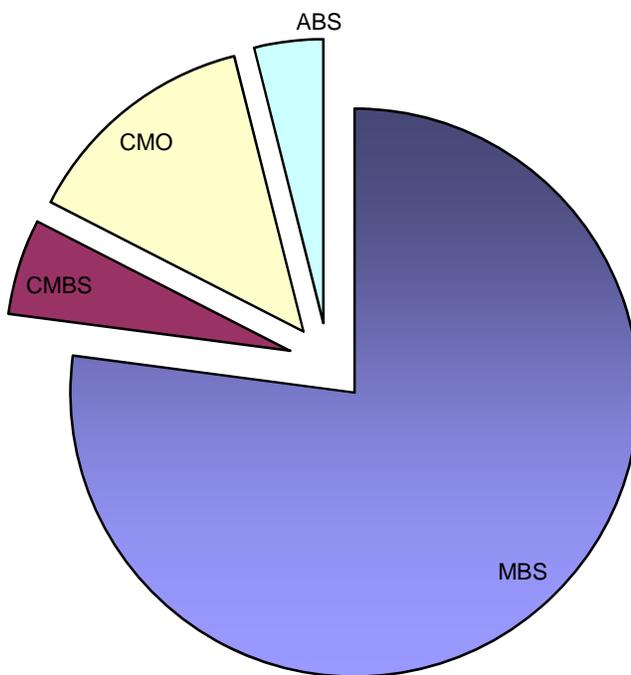
Top 5 Credit Holdings (by Dollar Duration)	\$ Duration	% \$ Duration
CITIGROUP	121.31	1.3
GENERAL ELECTRIC CO	111.85	1.2
COMCAST CORP	109.77	1.2
JP MORGAN CHASE & CO	96.54	1
GOLDMAN SACHS GROUP	90.73	1

Sector Allocation v. Index
(% market value)



	Market Value (\$MM - Yield Book)	TCRS % of portfolio	CITI	Difference
Agency Mortgage Backed Securities	\$3,503,302	32.3	30.2	2.0
GNMA				
15-Yr	\$10,115	0.1	0.2	-0.1
30-Yr	\$639,738	5.9	7.5	-1.6
FNMA				
10-, 15- & 20-Yr	\$410,010	3.8	2.7	1.1
30-Yr	\$1,420,821	13.1	11.5	1.6
FHLM				
15-Yr	\$127,708	1.2	1.6	-0.5
30-Yr	\$735,391	6.8	6.8	-0.1
Agency Hybrid	\$159,519	1.5	0.0	1.5
Commercial Mortgage Backed Securities	\$247,991	2.3	0.0	2.3
CMO and Non Agency Passthroughs	\$615,532	5.7	0.0	5.7
Asset Backed Securities	\$178,052	1.6	0.0	1.6
Total Securitized Product	\$4,544,877	41.8	30.2	11.6

Percent of Securitized Product



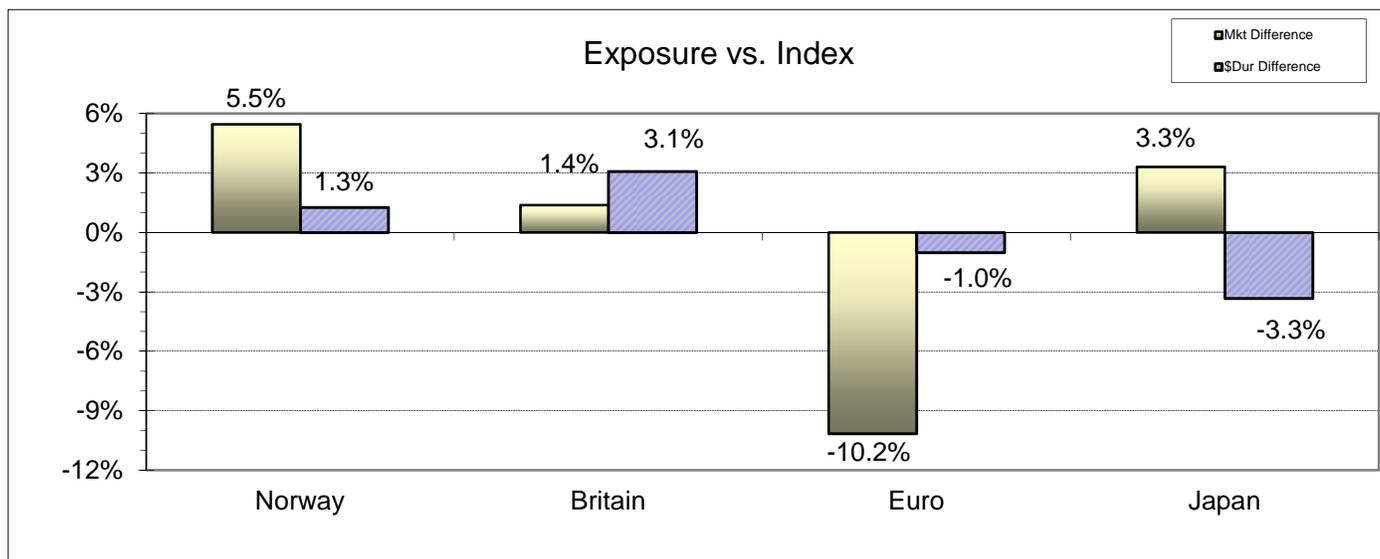
Portfolio Return: -5.35%
Citigroup Non-US G5 Index: -5.42%
Active Return: 0.07%

	TCRS		Percent of Value	Percent of \$Dur
	Yield	M. Dur		
Norway	0.28	1.77	5.5%	1.3%
Britain	2.37	10.19	12.9%	17.3%
Euro	1.57	10.03	17.5%	23.0%
Japan	0.51	6.96	64.1%	58.5%
	0.92	7.63	100.0%	100.0%

	Citigroup G5 Sovereign Index (ex-US)		Percent of Value	Percent of \$Dur
	Yield	Dur		
Britain	1.75	9.59	11.5%	14.2%
Euro	1.00	6.77	27.6%	24.0%
Japan	0.67	7.93	60.8%	61.8%
	0.89	7.80	100.0%	100%

Difference

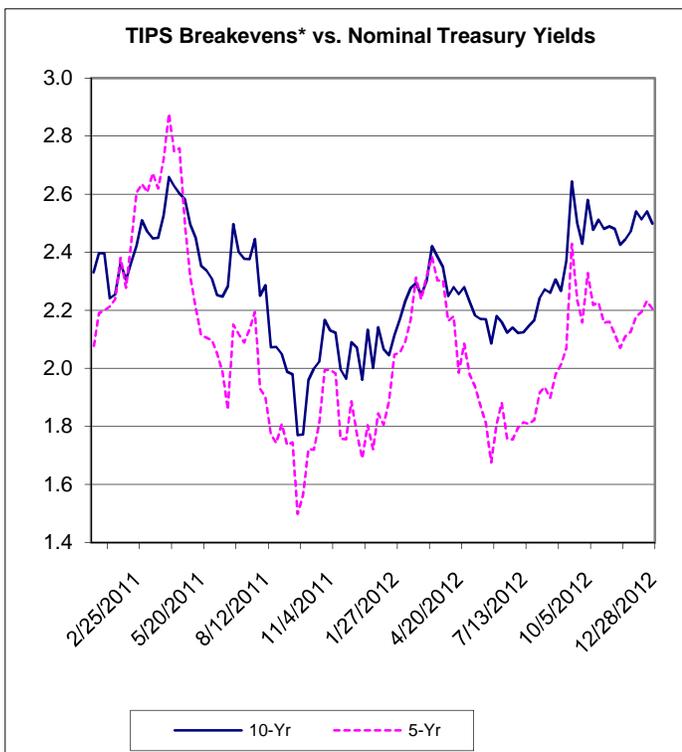
	Value Differ	M. Dur Differ	\$ Dur Differ
Norway	5.5%	1.8	1.3%
Britain	1.4%	0.6	3.1%
Euro	-10.2%	3.3	-1.0%
Japan	3.3%	-1.0	-3.3%
	0.0%	-0.2	0.0%



Portfolio Value (Yield Book): \$2,629,410,526
 Portfolio Return: 0.74%
 Citigroup ILSI Index: 0.63%
Active Return: 0.11%

% Market Value by Duration

	TCRS	CITI	Difference
0-2	0.02	0.02	0.00
2-4	0.04	0.04	0.00
4-6	0.06	0.06	0.00
6-8	0.13	0.14	-0.01
8-10	0.18	0.15	0.03
10+	0.19	0.19	0.01

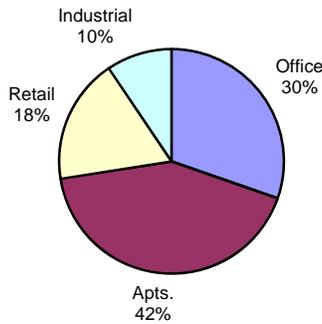


* The "breakeven" rate is the expected rate of inflation at which investment in TIPS yield the same return as investment in Treasuries

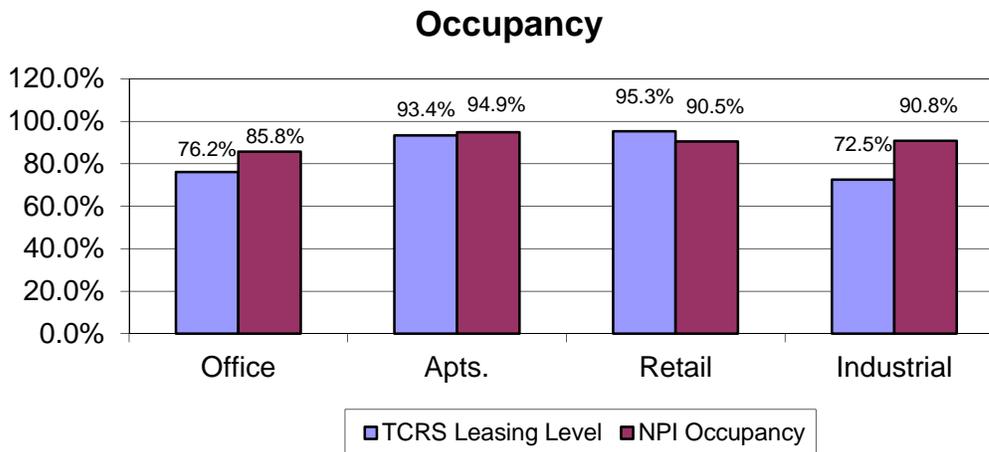
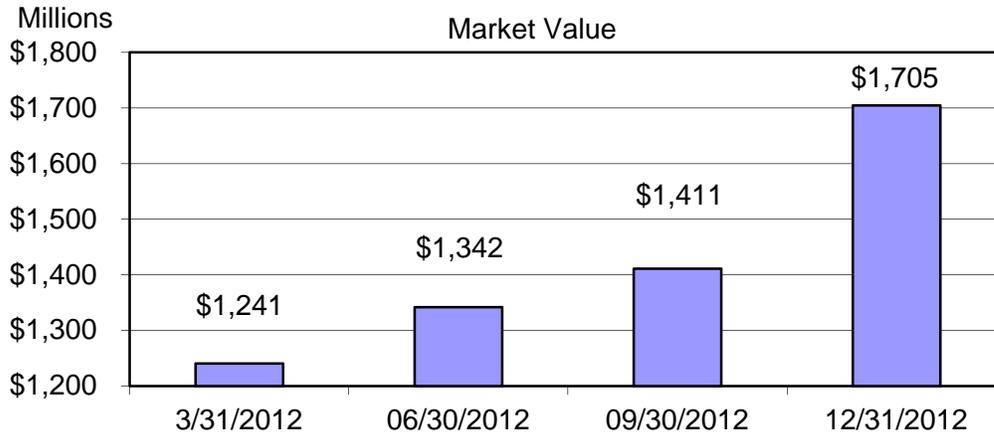
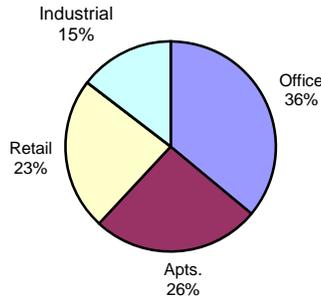
Source: Bloomberg

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TCRS By Property Type

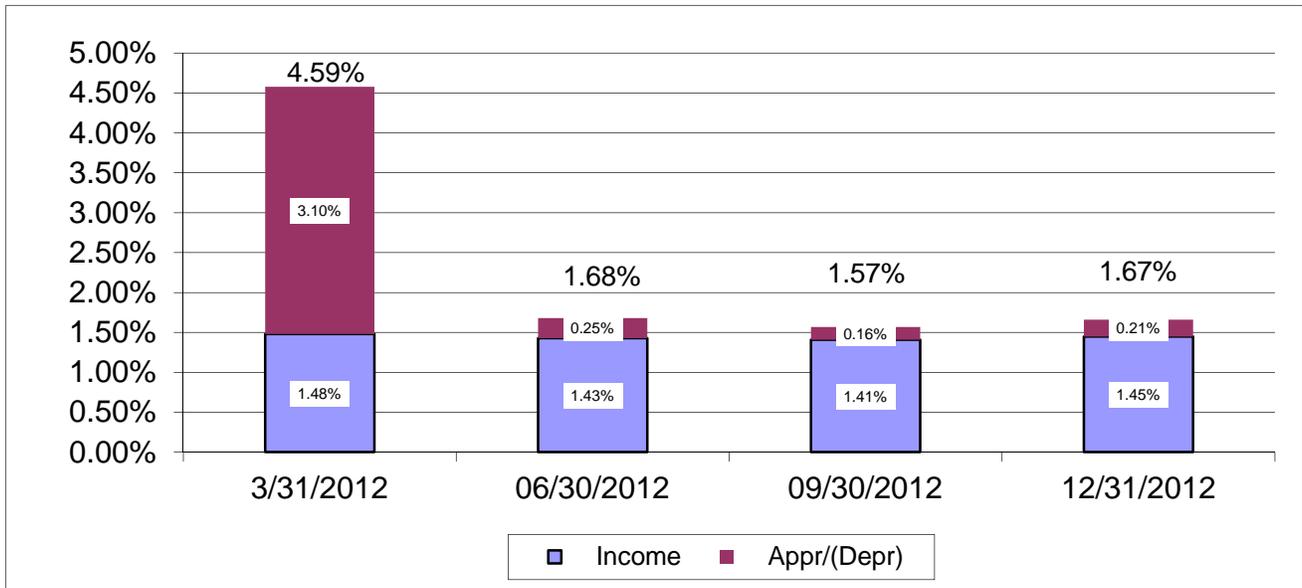


NPI By Property Type



The NPI is the National Property Index of the National Council of Real Estate Investment Fiduciaries (the index used for US core properties).

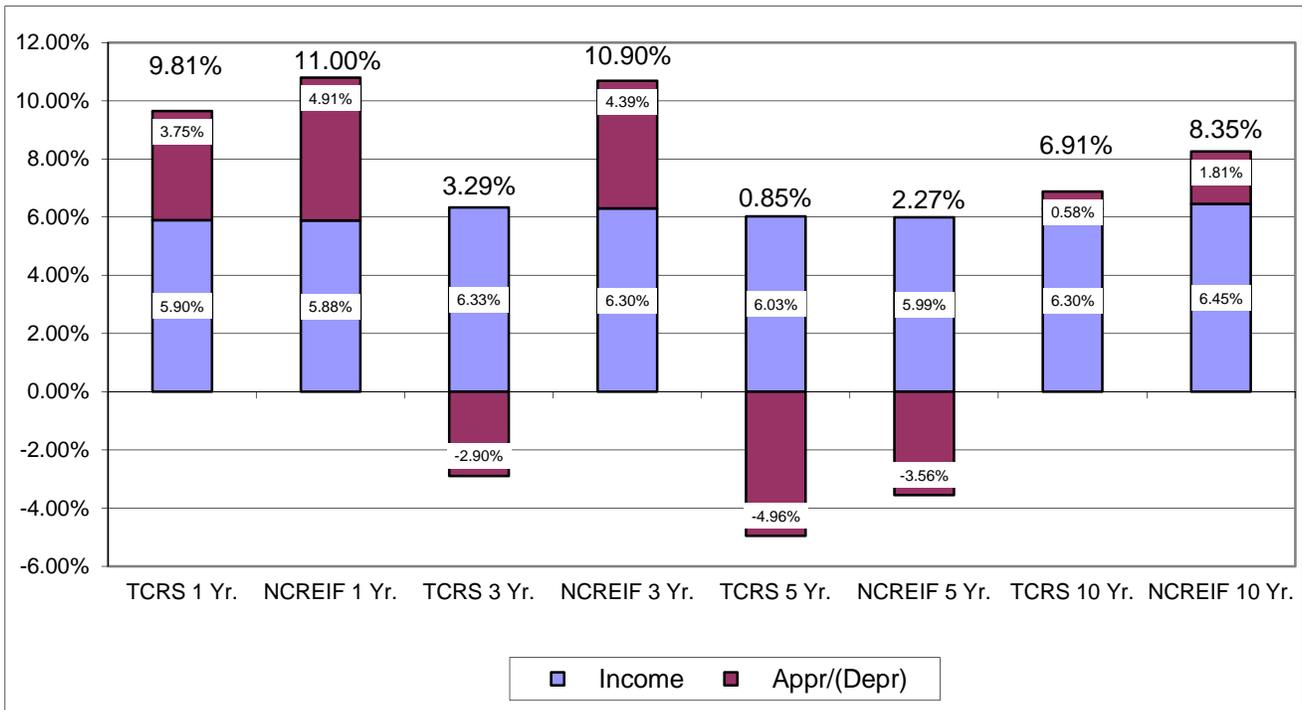
Peter Katseff



All returns shown above are reported one quarter in arrears

Budgeted Annual Income Return for calendar year 2013 (excluding REITs)

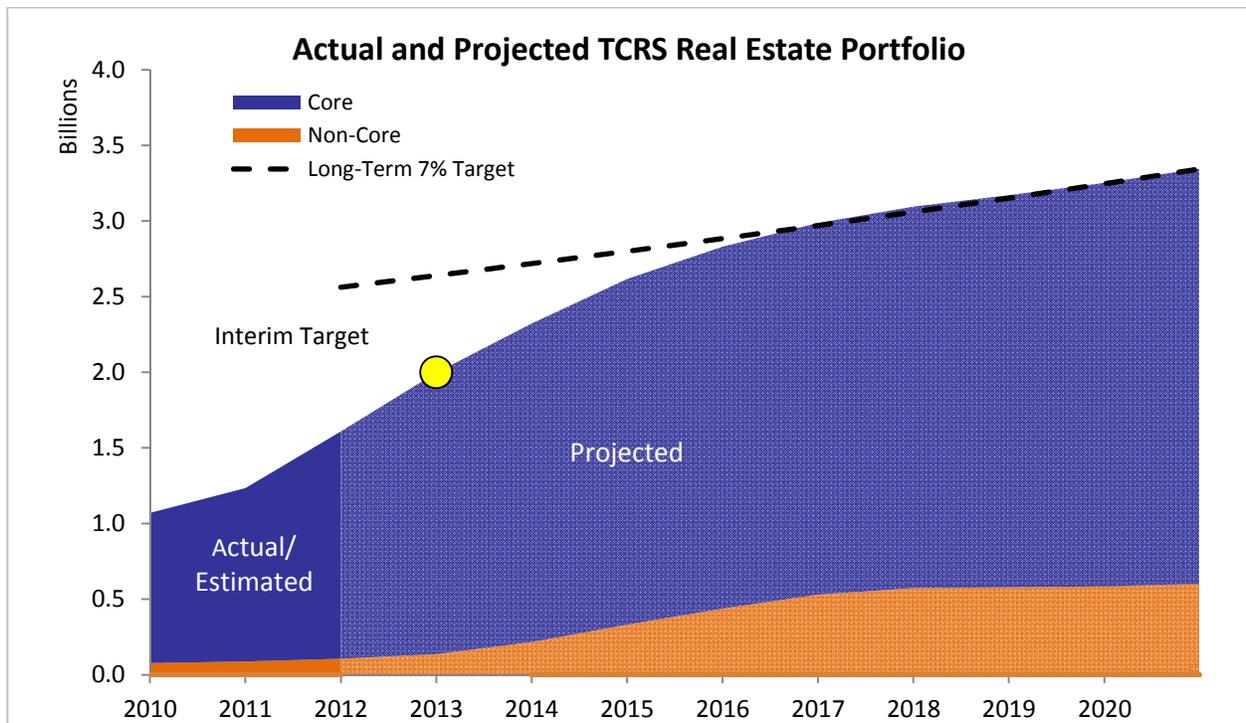
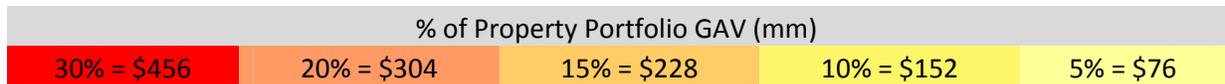
5.50%



All returns shown above are reported one quarter in arrears

Peter Katseff

Separate Account Diversification across the United States



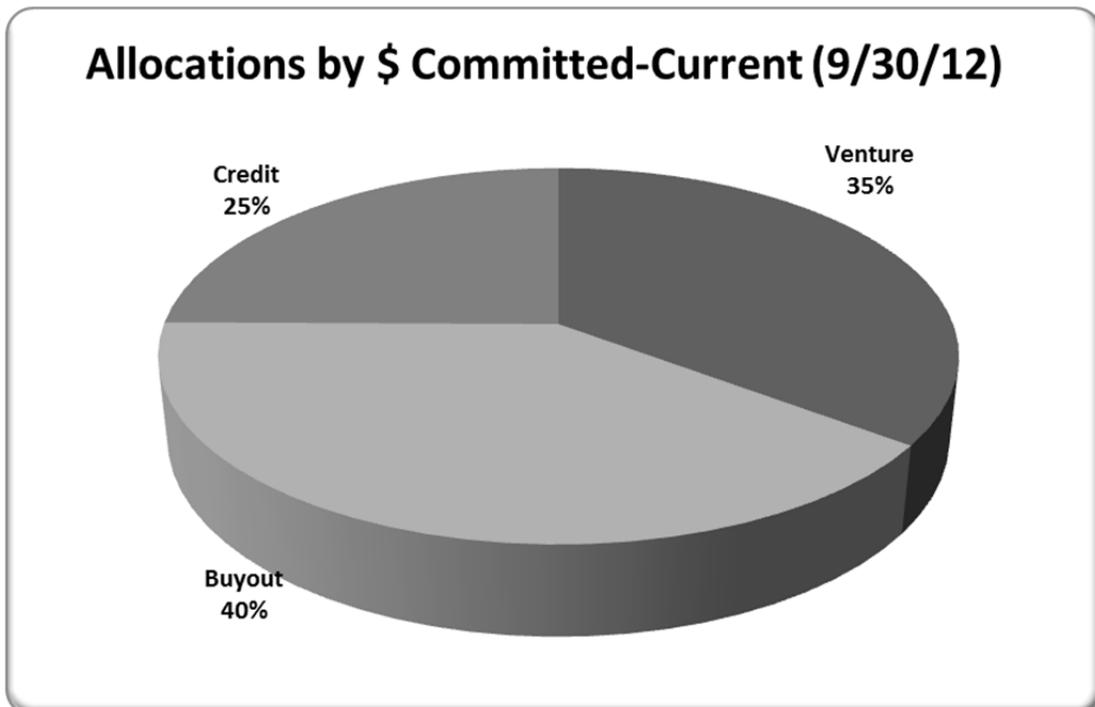
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Tennessee Consolidated Retirement System
 Private Equity Program
 Fiscal Q1 2013 Update
 Lamar Villere, CFA

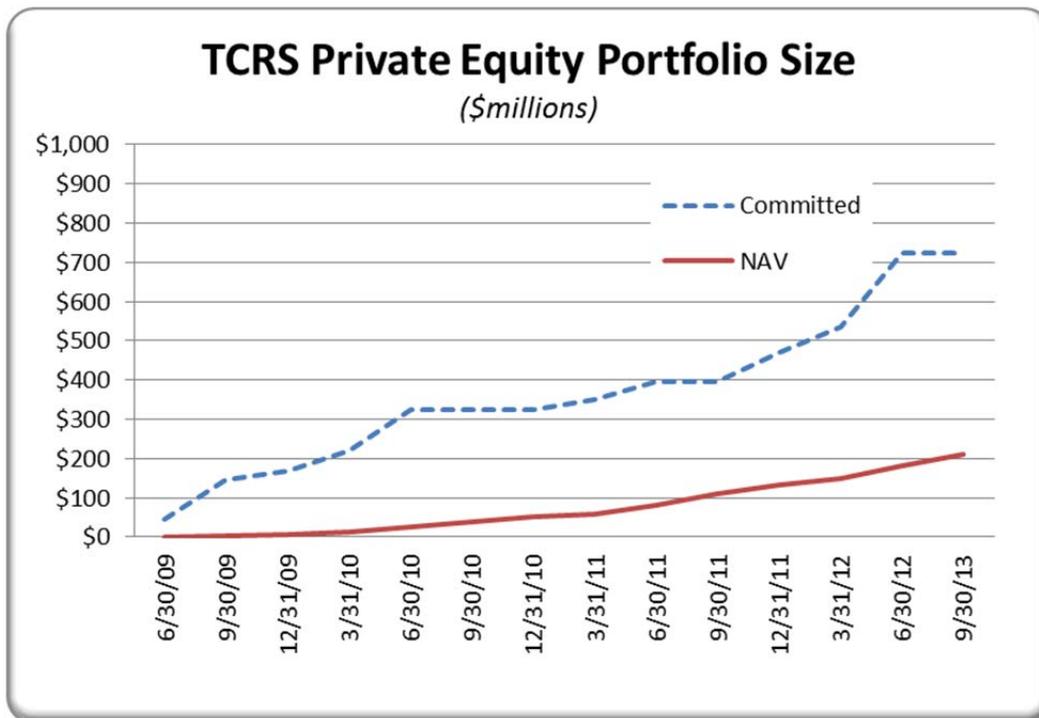
We have finalized our fiscal Q1:2013 results (the period ending 9/30/12), and are pleased to report that the program continues to show positive returns. That said, early strong returns have begun to show the impact of the J-Curve, as most portfolio companies are still held at cost. Additionally, continued significant strength in the public markets negatively impacted our relative performance.

<i>Trailing IRR</i>	Quarter	Trailing 1 Year	Since Inception
Buyout	2.0%	-0.2%	-1.2%
Credit	4.3%	18.9%	11.1%
Venture	-1.8%	8.6%	12.4%
Natural Resources	<u>-15.8%</u>	<u>#N/A</u>	<u>-41.4%</u>
TCRS PE Overall	1.6%	10.6%	9.0%
<i>S&P 500 + 3%</i>	<i>7.1%</i>	<i>31.0%</i>	<i>15.7%</i>

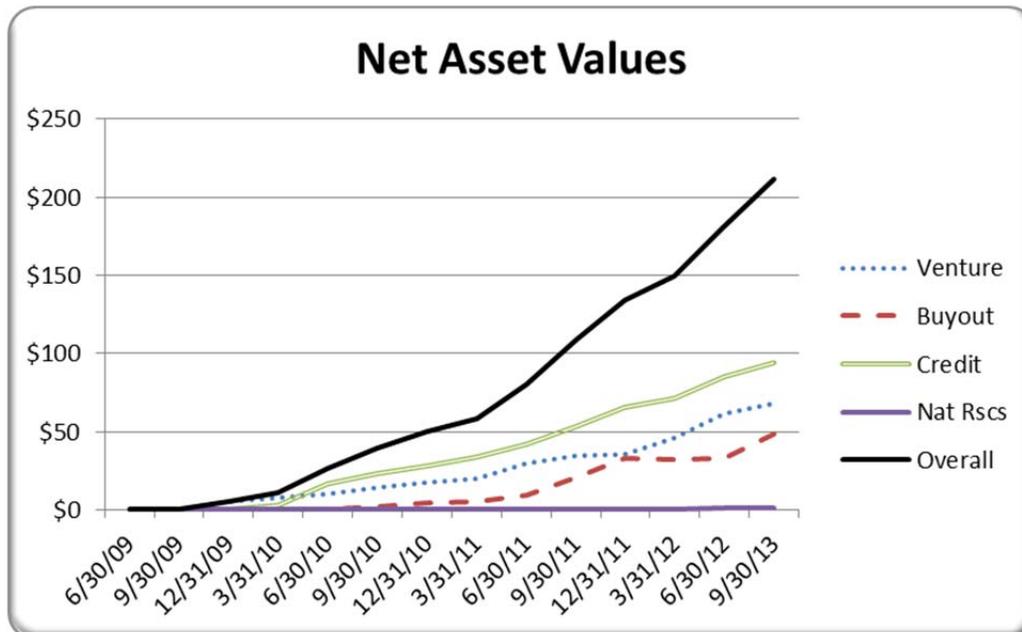
The overall portfolio is still significantly over weighted to venture capital, a situation which should be reversed as the commitment pace in buyouts increases in the coming years. The following chart shows the allocations to the sub-asset classes based on commitments.



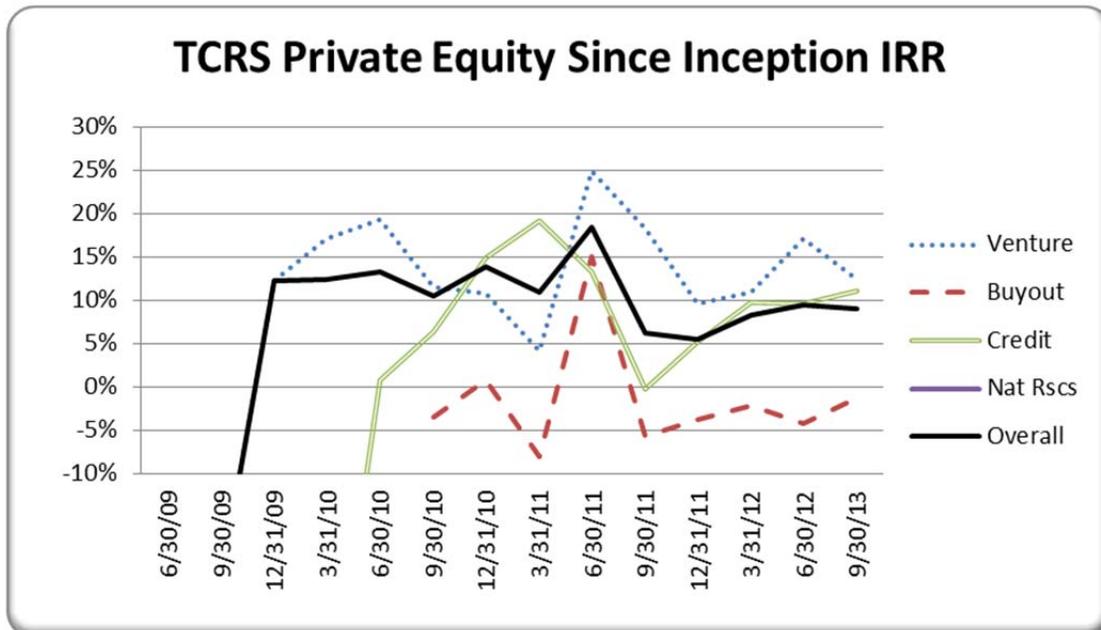
The next chart shows the overall size of the TCRS portfolio as it has grown since inception, both in terms of commitments as well as actual growth in net asset value.



The chart below illustrates the net asset value of each subcategory since the program's inception. We would expect buyout NAVs to accelerate significantly in the next 12 months.



Finally, to illustrate the early volatility of IRR (over time the since-inception program IRR will become fairly steady), we have included a chart showing the IRR of the overall portfolio and the sub-asset classes over time.



Fund Pipeline

TCRS expects to make multiple new commitments in 1H13. Targeted funds will enhance the distressed and buyout positions of the Private Equity portfolio. TCRS and our Private Equity consultant Cambridge Associates continues to monitor previously identified managers for new fundraising opportunities.

Staff

The TCRS Private Equity program welcomes Daniel Crews in the previously open Private Equity Analyst position. Mr. Crews previously managed various public equities funds for TCRS.

TCRS Equity Derivative Report

Domestic Stock Index Futures

Roy Wellington, CFA

Domestic Stock Index Futures Transaction Log

Date	B/S	Contracts	Broker	Price	Total	Reason
Begin	B	1,970 Russell 2000	Dec 2012 Citigroup	834.4000	164,376,800	
Trades						
10/18/2012	S	1,000 Russell 2000	Dec 2012 Citigroup	839.9882	(83,998,820)	1
10/29/2012	S	970 Russell 2000	Dec 2012 Citigroup	809.8038	(78,550,969)	1
Contracts Outstanding on December 30, 2012						
End	B	- Russell 2000	Dec 2012 Citigroup		-	
Total 2Q FY2013					\$	(1,827,011)

1 Move equity allocation towards allocation target.

2a Swap to next contract.

2b Swap from earlier contract.

Strategy: TCRS is replicating a small company stock portfolio using Russell 2000 index futures. The Russell 2000 future plus cash should produce a return equal to the Russell 2000 Index. TCRS utilizes index futures to its advantage to make timely investments and to gain small cap exposure as desired. Our exposure to small cap remains below the policy target.

TCRS also believes that it can add value to the underlying equity index return by investing cash allocated to the strategy in better (in terms of duration and credit) returning instruments than those implied by futures prices. Another source of extra return comes from rolling the futures contract from one calendar quarter to the next. If these sources of extra return dry up then TCRS can opt to own the underlying equity securities.

TCRS designated certain assets that in combination with the futures represents an equity allocation. These other assets were returned to the fixed income portfolio or sold as futures were sold.

Review: TCRS initiated an index fund designed to track the S&P 600 Small Cap Index which is part of the domestic equity benchmark. The Russell 2000 Index future did a good job of tracking the Russell 2000 Index but the Index itself didn't not match well the domestic equity small cap benchmark during a couple of episodes. TCRS maintained its exposure to small cap stocks by selling the Russell 2000 Index future alongside purchases of equity baskets to build the Small Cap Index Fund. In the second quarter of fiscal year 2013 we completed the transition from equity futures to the Small Cap Index Fund.

Affiliations: TCRS has used Citigroup exclusively in the quarter to trade index futures. We also have a clearing agreement with JPMorgan.

Domestic Fixed Income Derivatives Report

Andrew C. Palmer, CFA

Domestic Fixed Income Derivatives Transaction Log

ACCT	SOLD	BOUGHT	NET	EXPIRATION	CONTRACT	TYPE	STRIKE
Begin			-2755		T-BONDS 12 Dec		
			-4234		ULTRABOND 12 Dec		FUTURE
TRADE SUMMARY BY ACCOUNT							
5+ Gov't (1381)							
	-	-	-		10 T-NOTE 12 Dec C 135		
	-	-	-		10 T-NOTE 12 Dec		
	375	-	(375)		T-BONDS 12 Dec		
	1,000	-	(1,000)		ULTRABOND 12 Dec		
	-	-	-		10 T-NOTE 13 Mar		
	-	375	375		T-BONDS 13 Mar		
	-	1,000	1,000		ULTRABOND 13 Mar		
1-5 Gov't (1368)							
	expired				10 T-NOTE 12 Dec C 135		
	-	2,000	2,000		10 T-NOTE 12 Dec C 135		
	-	-	-		10 T-NOTE 12 Dec		
	2,080	-	(2,080)		T-BONDS 12 Dec		
	2,334	50	(2,284)		ULTRABOND 12 Dec		
	-	-	-		10 T-NOTE 13 Mar		
	-	2,080	2,080		T-BONDS 13 Mar		
	-	2,259	2,259		ULTRABOND 13 Mar		
Overlay (1371)							
	-	-	-		10 T-NOTE 12 Dec C 135		
	-	-	-		10 T-NOTE 12 Dec		
	300	-	(300)		T-BONDS 12 Dec		
	750	-	(750)		ULTRABOND 12 Dec		
	-	-	-		10 T-NOTE 13 Mar		
	-	300	300		T-BONDS 13 Mar		
	-	650	650		ULTRABOND 13 Mar		
Corporate (1365)							
	-	-	-		10 T-NOTE 12 Dec C 135		
	314	314	-		10 T-NOTE 12 Dec		
	440	440	-		T-BONDS 12 Dec		
	350	150	(200)		ULTRABOND 12 Dec		
	256	100	(156)		10 T-NOTE 13 Mar		
	190	-	(190)		T-BONDS 13 Mar		
	54	-	(54)		ULTRABOND 13 Mar		
End			-156		10 T-NOTE 13 Mar		
			2565		T-BONDS 13 Mar		
			3855		ULTRABOND 13 Mar		

Domestic Fixed Income Derivatives Report

Andrew C. Palmer, CFA

Domestic Fixed Income Derivatives Transaction Log

SUMMARY OF LAST QUARTER'S ACTIVITY:

CONTRACTS IN USE:

- 5-year Futures
- 10-year Futures
- Call options on 10-year Futures
- Long Bond Futures
- Ultra-Long Futures

STRATEGIES:

- Used Ultra-Long, Long Bond and Call Options on Ten-Year Futures to manage interest rate exposures in the 1-5 Gov't portfolio and the Corporate portfolio .
- Rolled Ten-Year, Thirty-Year and Ultra Futures contracts in 5+ Gov't portfolio to replicate the duration profile of the index without using physical Treasury notes.
- Used Ultra-Long Bond Futures and Long Bond Futures to offset the duration impact of a strategic overweight to the MBS portfolio and Credit Portfolios.

EFFICACY:

- Futures positions performed as expected. The replication strategy produced returns similar to the LPF Government Index and the duration adjustment transactions produced the expected impact on interest rate sensitivity. The call option trade expired out of the money but provided protection against a sharp drop in rates during the U.S. election and Fiscal Cliff period.

PROPOSED STRATEGIES FOR CURRENT QUARTER:

- Use Ultra-Long, Long Bond and Ten-Year Futures to manage interest rate exposures in the 1-5 Gov't portfolio, the 5+ Government Portfolio and the Corporate portfolio.
- Use Ultra-Long Bond Futures to offset the duration impact of a strategic overweight to the MBS portfolio and Credit portfolios.
- Use Ultra-Long, Long Bond and Ten-Year Futures along with cash equivalents to replicate the duration profile of the LPF Government Index without using physical Treasury notes.
- Employ Ultra-Long, Long Bond , Ten-Year and Five-Year Futures in the Corporate portfolio to offset the duration impact of timing differences in individual corporate bond trades.
- Buying out-of-the-money calls or puts on long and intermediate Treasuries to hedge big movements in rates.

TCRS Currency Derivative Report

Currency Forwards Activity
Jesse Picunko, CFA

2013 2nd Quarter Activity

NO ACTIVITY

TCRS MORTGAGE PORTFOLIO

END OF QUARTER MORTGAGE TBA POSITIONS

Jesse Picunko, CFA

	PRICE	PAR	MARKET	SETTLE	FIRM
	(\$milion)	(\$million)	(\$million)		
FNMA 30yr 3.5	106.66	27.00	28.80	JAN	C
FNMA 30yr 4.5	108.05	-17.00	-18.37	JAN	DB
GNMA2 30yr 3.5	108.71	50.00	54.36	JAN	BAML
GNMA2 30yr 3.5	108.71	65.00	70.66	JAN	BARC
GNMA 30yr 3.0	106.34	10.00	10.63	JAN	JEF
GNMA 30yr 3.0	106.34	20.00	21.27	JAN	NOM
GNMA 30yr 3.5	108.69	65.00	70.65	JAN	DB
GNMA 30yr 3.5	108.69	27.50	29.89	JAN	JPM
GNMA 30yr 4.0	109.70	47.50	52.11	JAN	CS
GNMA 30yr 4.0	109.70	15.00	16.46	JAN	JPM
GNMA 30yr 4.5	109.53	15.00	16.43	JAN	C
Total					
	325.00		352.88		

By Firm (\$million)

C	\$ 45.23
BAML	\$ 54.36
JPM	\$ 46.34
DB	\$ 52.28
JEF	\$ 10.63
NOM	\$ 21.27
CS	\$ 52.11
BARC	\$ 70.66
	\$ 352.88

OPERATIONS UPDATE
Tim McClure, CTP

TCRS continues to move forward with changes to the Operations area. As TCRS looks for ways to add value to the Fund, this is an area that offers some opportunity for efficiencies and technology upgrades.

Personnel Changes – Staff is currently interviewing for an open position in the Operations area.

Trading – Trade volume for the quarter was off slightly at 193 million shares valued at \$7.2 billion, compared to the previous quarter of 252 million shares valued at \$9.5 billion. The Quant Fund was the most active followed by the Sector Fund, Mid-Cap & Index. The good news is that implicit trading costs continue to trend lower, and have dropped each of the previous four quarters. This reduction equates to an increase in savings in each quarter based on current volume.

Trading Cost Analysis – As the data that is received from Abel Noser becomes more granular and staff becomes more comfortable using the data, patterns are starting to emerge. Portfolio manager timing profiles are becoming more consistent. In the very near future, recommendations will be made to management concerning trading strategies and firms that are being used.

Commissioned Dollar Report

