



INVESTMENT MANAGEMENT COMMITTEE



March 2015

**TEACHER RETIREMENT SYSTEM OF TEXAS MEETING
BOARD OF TRUSTEES
AND
INVESTMENT MANAGEMENT COMMITTEE**

*(Mr. Barth, Committee Chair; Mr. Colonna; Mr. Corpus; Mr. Kelly; & Ms. Sissney,
Committee Members)*

AGENDA

**March 26, 2015 – 12:00 p.m.
TRS East Building, 5th Floor, Boardroom**

*The March 26-27 meeting of the Investment Management Committee and TRS Board of Trustees will be held by telephone conference call as authorized under Texas Government Code Section 551.130. The Board and committee intend to have a quorum physically present at the following location: **1000 Red River Austin, Texas 78701 in the TRS East Building, 5th Floor, Boardroom.***

1. Consider the approval of the proposed minutes of the November 20, 2014 committee meeting – Todd Barth.
2. Receive the annual Internal Public Markets review – Chi Chai, Patrick Cosgrove, and KJ Van Ackeren.
3. Receive the annual Trading Management Group review – Bernie Bozzelli, Jaime Llano, Steve Peterson, and Jared Morris.

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Investment Management Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because the full Investment Management Committee constitutes a quorum of the Board, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.



Minutes of the Investment Management Committee

November 20, 2014

The Investment Management Committee of the Board of Trustees of the Teacher Retirement System of Texas met on November 20, 2014 in the boardroom located on the Fifth Floor of the TRS East Building offices at 1000 Red River Street, Austin, Texas. The following committee members were present:

Todd Barth, Chair
Joe Colonna
David Corpus
Nanette Sissney

Others present:

Christopher Moss, TRS Trustee
Anita Palmer, TRS Trustee
Karen Charleston, TRS Trustee
Brian Guthrie, TRS
Carolina de Onís, TRS
Britt Harris, TRS
Mark Albert, TRS
Jerry Albright, TRS
Jase Auby, TRS
Dr. Mohan Balachandran, TRS
Ronnie Bounds, TRS
Chi Chai, TRS
Jean-Benoit Daumerie, TRS
Dr. Jingshan Fu, TRS
Solomon Gold, TRS
Dan Junell, TRS

Lynn Lau, TRS
Dr. Teresa Lwin, TRS
Hasim Mardin, TRS
Mike Pia, TRS
Komson Silapachai, TRS
Ken Standley, TRS
Don Stanley, TRS
Susan White, TRS
Patrick Zerda, TRS
Eric McDonald, Former TRS Trustee
Dr. Keith Brown, Investment Advisor
Steven Huff, Fiduciary Counsel
Steve Voss, Hewitt EnnisKnupp
Ann Fickel, Texas Classroom Teachers Association
Ted Melina Raab, Texas American Federation of Teachers
Philip Mullins, Texas State Employee Union

Mr. Barth called the meeting to order at 12:59 p.m. A quorum was present. Mr. Kelly was absent.

1. Consider the approval of the proposed minutes of the September 18, 2014 committee meeting – Todd Barth.

On a motion by Ms. Sissney, seconded by Mr. Corpus, the committee approved the minutes of the September 18, 2014 meeting, as presented.

2. Review the Asset Allocation Group – Mohan Balachandran and Mark Albert.

Dr. Balachandran provided a performance summary of the Asset Allocation Group's four portfolios – Long Treasuries, TIPS, Quantitative Equity, and Special Opportunities. Mr. Albert confirmed for Mr. Barth that a little over \$1 billion was managed within the Quantitative Equity Portfolio. Dr. Brown discussed the alpha strategy and securities lending aspect of the Long Treasury Portfolio with Dr. Balachandran and Mr. Albert. Dr. Balachandran introduced the members of the Asset Allocation Group and provided an update regarding the group's 2014 priorities.

Dr. Balachandran explained the difference between strategic and tactical asset allocation for Mr. Barth, Ms. Sissney, and Mr. Colonna. Dr. Brown clarified for Ms. Sissney that the Investment Policy Statement describes how much staff can deviate within bands from investment targets to generate alpha. Dr. Balachandran stated that one goal that has been accomplished for tactical asset allocation was moving from a regression-based pair-model framework to one that combined elements from all across the trust into an integrated tactical asset allocation process. He stated that a second accomplished goal was the development of a systematic model of validation and governance framework that led to the elimination of certain other models. He stated that the two fixed-income Treasuries and TIPS portfolios returned 11.8 percent last year. He confirmed for Mr. Barth that yields for the two portfolios were not aggregated with Treasuries and TIPS managed within the internal Risk Parity Portfolio.

Mr. Albert addressed the performance of the Quantitative Equity Portfolio. He advised Dr. Brown that the tracking error for the portfolio was 2 percent and clarified for Ms. Sissney that the portfolio added \$26 million in alpha to the trust during the past year. Mr. Albert described the different characteristics of quantitative and fundamental managers and how security factors and models were used by staff in building the portfolio. In response to questions from Dr. Brown and Mr. Barth, he advised that about 550 long-only securities were managed within the portfolio and that data inputs were updated monthly. Mr. Albert described the three different strategies that were being used for the portfolio which were both sector and region neutral. He advised Dr. Brown that staff ran the strategies separately, but added them together at the end. Mr. Albert stated that value was the dominant factor in the portfolio comprising 60 percent of all factors used.

Mr. Harris commented on the explosion in computer technology and information that had occurred in the last 20 years, how systems could be trained to make strategic decisions at times better than humans, and their contribution to the performance of the Quantitative Equity Portfolio. Dr. Balachandran discussed the performance of the Special Opportunities Portfolio and the associated funding of three investments. He concluded the presentation by highlighting three preliminary goals for the next year: rollout of the internal risk parity effort, strengthening of the tactical asset allocation program, and expansion of the Quantitative Equity Portfolio.

3. Review Risk Management and Strategies – Jase Auby and James Nield.

Mr. Auby introduced James Nield, Deputy Chief Risk Officer.

Mr. Auby provided an update on the Risk Group, including the key risk measures, 2014 and 2015 priority projects, contribution to the trust's alpha, team structure, and risk mandate. He noted that one-year returns for the year ending September 30, 2014 were 12.6 percent with an alpha of 181 basis points. Responding to a question from Mr. Colonna, he stated that the external and internal risk parity strategies were still combined during this reporting period, but were separated beginning October 1, 2014.

Mr. Nield provided an update on the performance and funding plan progress for the risk parity strategies. He reported that, as of September 2014, the total investment equated to about 55 basis points of the trust or \$703 million, contributing a 10.4 percent return over a one-year period. He confirmed for Mr. Barth that global equity portfolio investments were through futures. He



presented the bubble risk signals. He clarified for Mr. Barth that a bubble requires a spread of three standard deviations between two asset classes, and that the only asset class that was currently close to a bubble signal was in equity markets.

Mr. Auby presented the macro environment chart and explained how each economic region falls in each of the nine economic regimes based on inflation and growth, two factors affecting performance of the trust assets. He stated that the U.S. and European markets were in the global equity zone, Japan was in real return zone, and China was in the stable value zone. Responding to a question from Mr. Colonna as to why China's 7.5 percent growth would put the region in the stable value zone, Mr. Auby noted that China's growth had reduced from its long-time 10 percent to the current 7.5 percent. He also clarified for Mr. Colonna that the trust's stable value assets were predominately U.S. Treasuries and that credit was currently in the absolute return line item, which had zero allocation.

Mr. Auby commented on valuation signals and the cumulative sum (CUSUM) signals. He stated that staff uses CUSUM signals to demand that certain asset managers be re-underwritten at certain points in time to confirm that they were still good managers. He confirmed for Dr. Brown that the signals were used for both current managers and internal portfolios. He explained the machine-human two-step process and stated that the Risk Group would undergo the re-evaluation process jointly with the portfolio manager after receiving a signal and then put a "buy" or "sell" rating on the manager. Responding to a question from Dr. Brown as to how many times staff had terminated a sell, Mr. Auby stated that there were about 14 or 15 terminations so far.

Mr. Auby highlighted two 2014 priorities: integrating risk signals into the Tactical Asset Allocation process and the proxying process for hedge fund risk. He also provided an update on the two research and development portfolios within the Risk Group: low volatility with overlay and currency hedging. Per Mr. Harris' request, he explained the process of developing a research portfolio. Mr. Harris noted that currency hedging was created to prepare for a potential strong dollar environment in the future. Mr. Auby concluded his presentation by highlighting the 2015 priorities: increasing allocations to Risk Parity strategies, reevaluating the current allocations to the low volatility with overlay strategies, reviewing the Energy and Natural Resources risk model and stress testing, and expanding research on risk signals.

The meeting adjourned at 2:15 p.m.

APPROVED BY THE **INVESTMENT MANAGEMENT COMMITTEE** OF THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE 26th DAY OF MARCH, 2015.

ATTESTED BY:

Dan Junell
Secretary to the TRS Board of Trustees

Date





Internal Active Management

Chi Kit Chai, Senior Managing Director

Patrick Cosgrove, Senior Director

KJ Van Ackeren, Senior Director

March 2015

Agenda

Overview

- TRS IMD Internal Active Management

Internal Actively Managed Equity Portfolios

- TRS Investment Division
- IPM Organizational Chart

Market Update

- Regional Returns
- Sector Returns

GBI Flagship

- Investment Results
- Competitive Landscape
- Regional Performance
- US Active Manager Performance
- Region and Sector Positioning
- Top Holdings and Overweights
- Fundamental Characteristics
- Performance Attribution and Risk
- Best Stock Ideas

GBI Gold

- Investment Results

GBI High Quality

- Investment Results

Accomplishments and Priorities

- Top Priority – Fishing Holes (Stock Screening)

Summary

Appendix

TRS IMD Internal Active Management

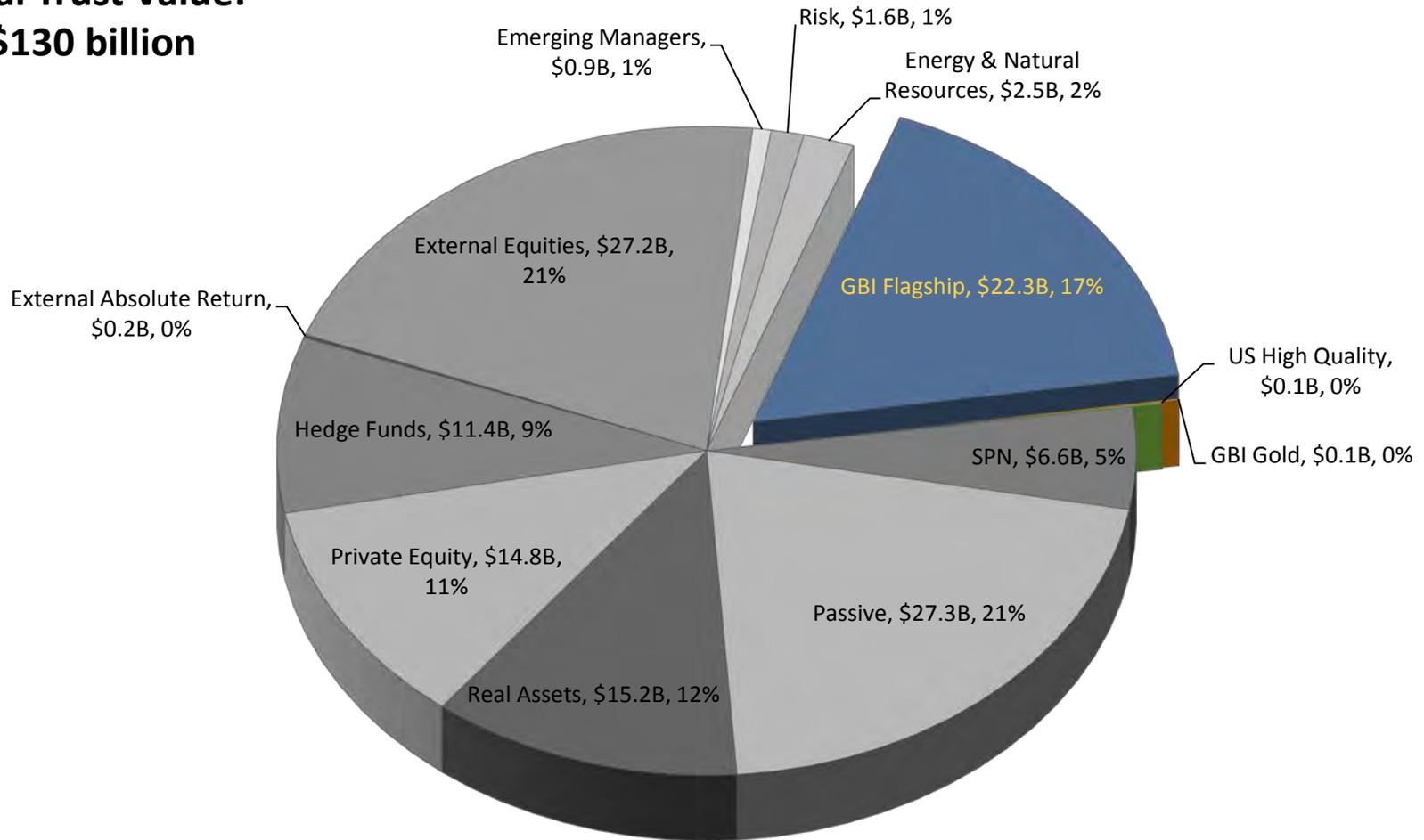
Overview as of December 31, 2014

Internal Active Management							
<ul style="list-style-type: none"> \$23 billion managed actively (18% of TRS Portfolio) Experienced investment and trading teams 				<ul style="list-style-type: none"> Well developed investment processes with effective risk management Annual cost savings of approximately \$100 million 			
Active Portfolios							
Global Best Ideas (GBI)	AUM (\$M)	ALPHA				Tracking Error	Information Ratio
		1 Yr	3 Yrs	5 Yrs	ITD		
Core	\$20,930	0.1%	0.3%	0.2%	0.5%	1.3%	0.38
Quant	1,059	2.7%	3.5%	2.0%	2.6%	2.0%	1.34
Alpha Opportunity	321	3.1%				10.7%	0.29
Flagship	22,310	0.3%	0.4%	0.3%	0.5%	1.3%	0.41
Gold	104	13.3%	2.8%	2.5%	2.4%	4.5%	0.54
US High Quality	98	2.7%	0.5%			3.6%	0.20
Total Internal Active	\$22,512						
GBI Flagship Portfolio Characteristics				GBI Flagship Factor Exposures			
Characteristics	Data	Factor	% of Risk				
Predicted Beta	1.0	Stock Specific	48				
Price/Earnings - Trailing	16.1x	Region/Currency	17				
Price/Earnings - Forward	14.8x	Beta	13				
Price/Book	2.0x	Sector	7				
Dividend Yield	2.2%	Momentum	7				
ROE	17.7%	Volatility	6				
EPS Growth	12.1%	Liquidity	1				
Debt/Capital	35.5%	Growth	1				
Realized Tracking Error	126 bps	Size	0				
		Value	0				
GBI Flagship Key Policies							
Benchmark: MSCI All-Country World				Target Alpha: 50 basis points			
Regions	BM Weight	Risk Ranges					
United States	52%	Tracking Error: 0 to 200 basis points					
Europe	22%	Regional Allocation: -3% to +3%					
Asia Ex Japan	8%	Sector Allocation: -3% to +3%					
Japan	7%						
Latin America & EMEA	4%						
Other	6%						
	100%						

Internal Public Markets

IMD as of December 31, 2014

Total Trust Value:
\$130 billion



Note: GBI Flagship includes Core, Quant and Alpha Opportunity.

Internal Public Markets

Organizational Chart



- 13 CFA Charterholders
- 14 Average Years of Experience
- 22 MBAs/Other Graduate Degrees

Global Regional Returns (US Dollar)

Annual						Annualized	
2014	2013	2012	2011	2010	2009	3 Year	5 Year
United States 13%	United States 32%	Asia Ex JP 22%	United States 1%	Canada 20%	EMEA & LA 85%	United States 20%	United States 15%
Asia Ex JP 5%	Japan 27%	Australia 22%	MSCI AC World -7%	Asia Ex JP 20%	Australia 76%	MSCI AC World 14%	MSCI AC World 9%
MSCI AC World 4%	Europe 25%	Europe 19%	Australia -11%	EMEA & LA 19%	Asia Ex JP 72%	Europe 12%	Asia Ex JP 6%
Canada 2%	MSCI AC World 23%	MSCI AC World 16%	Europe -11%	Japan 15%	Canada 56%	Asia Ex JP 10%	Japan 5%
Australia -3%	Canada 6%	United States 15%	Canada -13%	United States 15%	Europe 36%	Japan 10%	Europe 5%
Japan -4%	Australia 4%	EMEA & LA 14%	Japan -14%	Australia 15%	MSCI AC World 35%	Australia 7%	Australia 5%
Europe -6%	Asia Ex JP 3%	Canada 9%	Asia Ex JP -17%	MSCI AC World 13%	United States 26%	Canada 5%	Canada 4%
EMEA & LA -14%	EMEA & LA -10%	Japan 8%	EMEA & LA -20%	Europe 4%	Japan 6%	EMEA & LA -4%	EMEA & LA -3%

Global Sector Returns (US Dollar)

Annual

2014	2013	2012	2011	2010	2009
Health Care 18%	Discretionary 36%	Financials 29%	Health Care 9%	Discretionary 25%	Materials 70%
Technology 15%	Health Care 36%	Discretionary 23%	Staples 8%	Industrials 24%	Technology 58%
Utilities 14%	Industrials 29%	Health Care 18%	Telecom 0%	Materials 22%	Discretionary 44%
Staples 6%	Technology 27%	MSCI AC World 16%	Energy -3%	Staples 14%	Financials 37%
MSCI AC World 4%	Telecom 24%	Industrials 16%	Technology -4%	MSCI AC World 13%	MSCI AC World 35%
Discretionary 3%	MSCI AC World 23%	Technology 15%	Utilities -5%	Energy 12%	Energy 33%
Financials 3%	Financials 22%	Staples 15%	Discretionary -5%	Technology 11%	Industrials 29%
Industrials 0%	Staples 18%	Materials 11%	MSCI AC World -7%	Telecom 11%	Staples 24%
Telecom -2%	Energy 14%	Telecom 8%	Industrials -10%	Financials 6%	Health Care 19%
Materials -7%	Utilities 11%	Energy 2%	Financials -19%	Health Care 3%	Telecom 16%
Energy -13%	Materials -1%	Utilities 2%	Materials -21%	Utilities 0%	Utilities 10%

Annualized

3 Year	5 Year
Health Care 24%	Health Care 16%
Discretionary 20%	Discretionary 16%
Technology 19%	Technology 12%
Financials 18%	Staples 12%
Industrials 15%	Industrials 11%
MSCI AC World 14%	MSCI AC World 9%
Staples 13%	Telecom 8%
Telecom 9%	Financials 7%
Utilities 9%	Utilities 4%
Materials 1%	Energy 2%
Energy 0%	Materials -1%

GBI Flagship

Performance as of December 31, 2014

GBI FLAGSHIP

Year	AUM (\$ in billions)	Investment Return (%)	Alpha (bps)
2014	22.3	4.5	27
2013	23.1	23.1	31
2012	20.4	16.8	65
2011	18.2	-7.3	7
2010	19.4	12.8	16
2009	16.7	35.4	77
2008	12.1	-41.5	72
2007 ¹	3.9	2.8	43

GBI FLAGSHIP

			Risk Metrics	
Annualized	Investment Return (%)	Alpha (bps)	Tracking Error ²	Information Ratio ³
1-Year	4.5	27	1.0%	0.3
3-Year	14.5	41	0.7%	0.6
5-Year	9.5	28	0.9%	0.3
Since Inception ¹	3.6	52	1.3%	0.4

GBI US HIGH QUALITY

Year	AUM (\$ in millions)	Investment Return (%)	Alpha (bps)
2014	98	16.5	318
2013	102	31.3	-134
2012	99	17.3	117
2011 ⁵	100	-4.8	-86

GBI CORE

Year	AUM (\$ in billions)	Investment Return (%)	Alpha (bps)
2014	20.9	4.3	9
2013	22.1	23.1	16
2012	19.8	16.8	66
2011	17.6	-7.1	23
2010	19.0	12.8	9
2009	16.4	35.3	67
2008	12.1	-41.6	59
2007 ¹	3.9	2.8	37

GBI QUANT

Year	AUM (\$ in millions)	Investment Return (%)	Alpha (bps)
2014	1,059	6.9	266
2013	1,015	28.2	545
2012	547	18.6	245
2011	250	-8.4	-101
2010	182	14.2	158
2009 ⁴	170	23.8	449

GBI ALPHA OPPORTUNITY

Year	AUM (\$ in millions)	Investment Return (%)	Alpha (bps)
2014	321	8.0	377
2013	79	23.1	33
2012 ⁶	64	-0.02	-214

Note: As of 10/1/2014, the GBI benchmark has changed from MSCI-ACWI Net to MSCI-ACWI USA Gross and Int'l Net.

¹Inception: December 2007

²Tracking Error: annualized standard deviation of monthly excess returns

³Information Ratio: annualized excess returns/tracking error

⁴Inception: June 2009

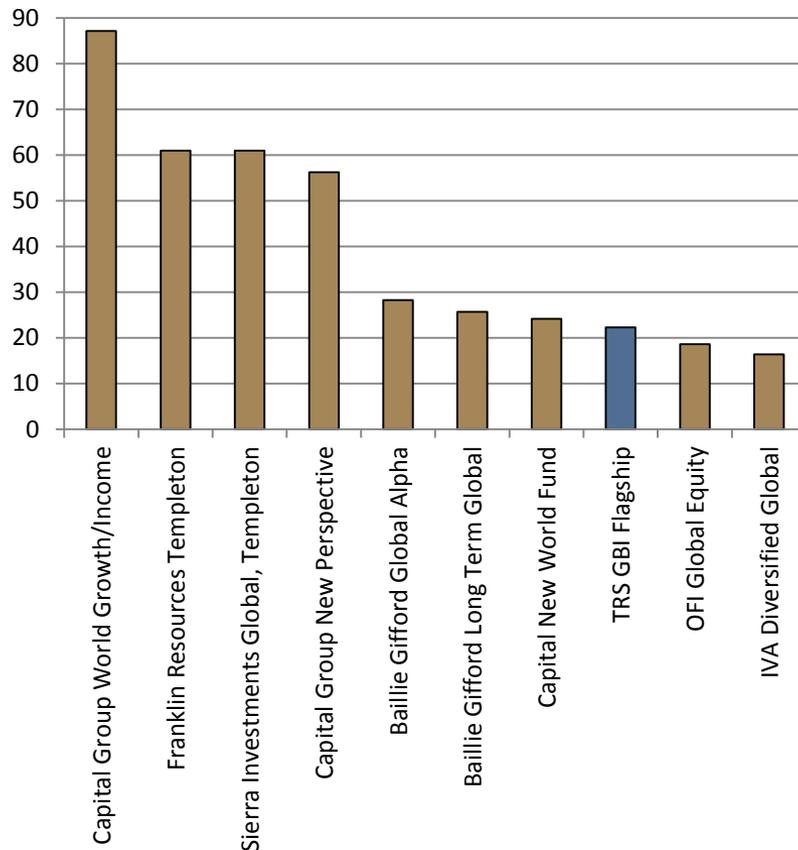
⁵Inception: July 2011

⁶Inception: October 2012



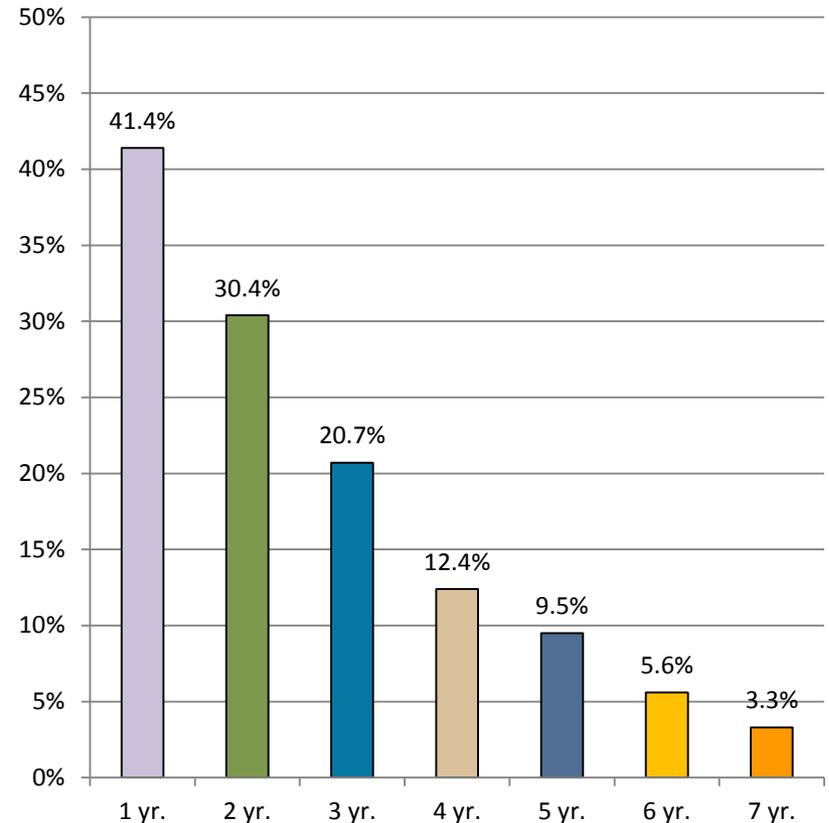
GBI Flagship Competitive Landscape

Ten Largest Actively Managed Global Funds, AUM (\$ billions)



8th Largest Global Fund

Percentage of Global Equity Funds Outperforming Their Benchmarks in Consecutive Years



Only 3% have 7 Consecutive Years of Alpha



Source: eVestments
As of December 31, 2014.

GBI Regional Performance

	Returns (%)		Alpha (bps)		Information Ratio		Peer Ranking Information Ratio ¹	
	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year
GBI Flagship	4.5	14.5	27	41	.27	.57	Q2	Q2
GBI US	11.9	19.7	-157	-70	-1.63	-.89	Q4	Q4
GBI EAFE	-3.8	11.3	56	86	.25	.56	Q2	Q2
GBI EM	2.7	6.8	483	276	1.65	1.28	Q1	Q1

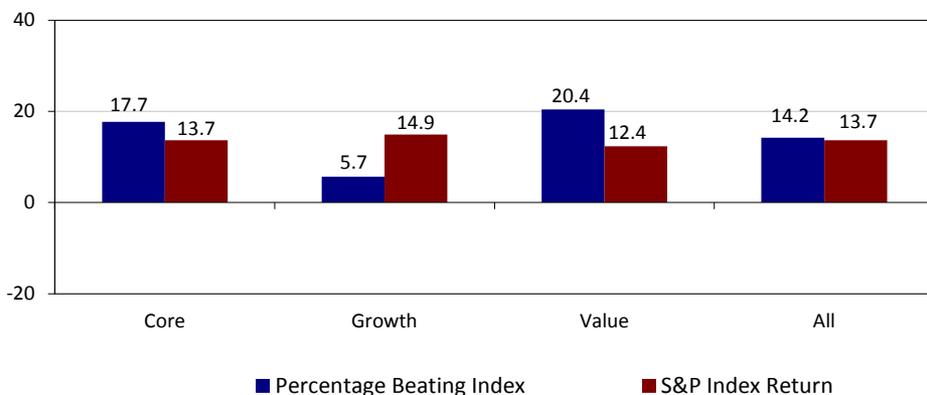
- US relative performance has been challenging
- International alpha has been strong and consistent, particularly in emerging markets

¹ eVestments

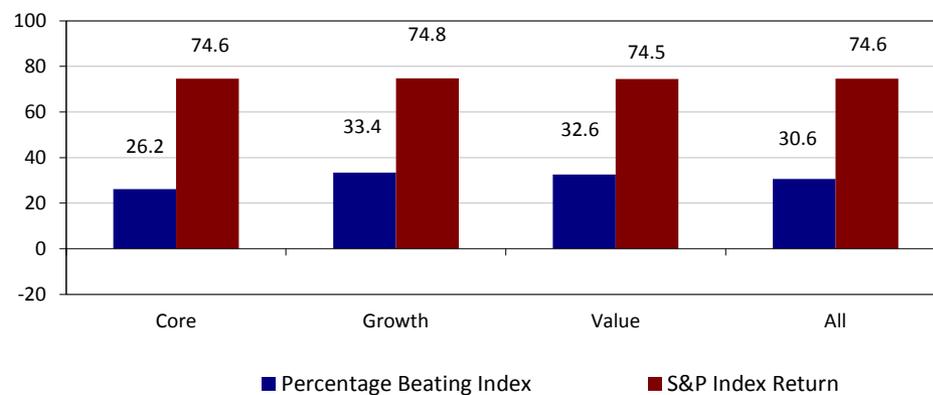
Benchmarks used for the respective regions of the GBI portfolio were the following components of MSCI ACWI: USA, EAFE + Canada, and EM. As of December 31, 2014.

US Active Manager Performance in 2014

1 year



3 year



- 2014 was a difficult environment for stock pickers, especially in the US
- It was the worst year of performance in a decade for active large cap US funds
- Only 18% of active large cap funds beat the S&P 500

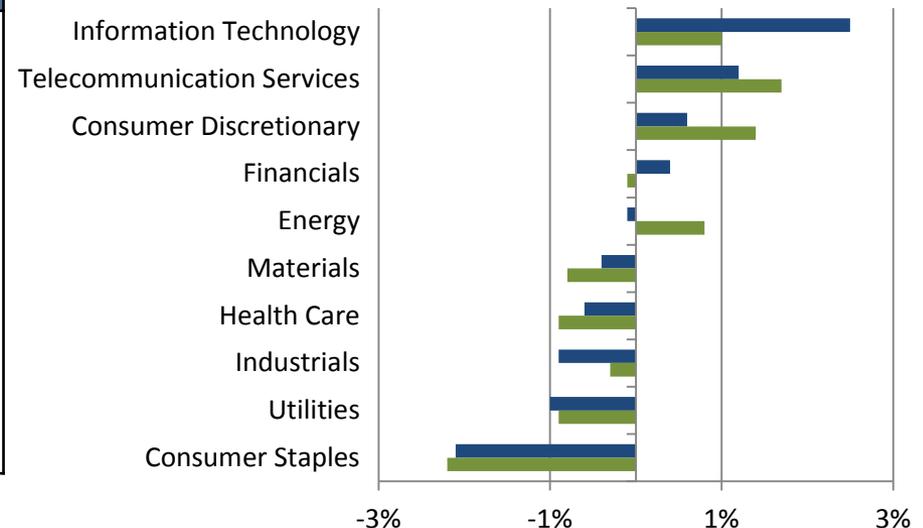
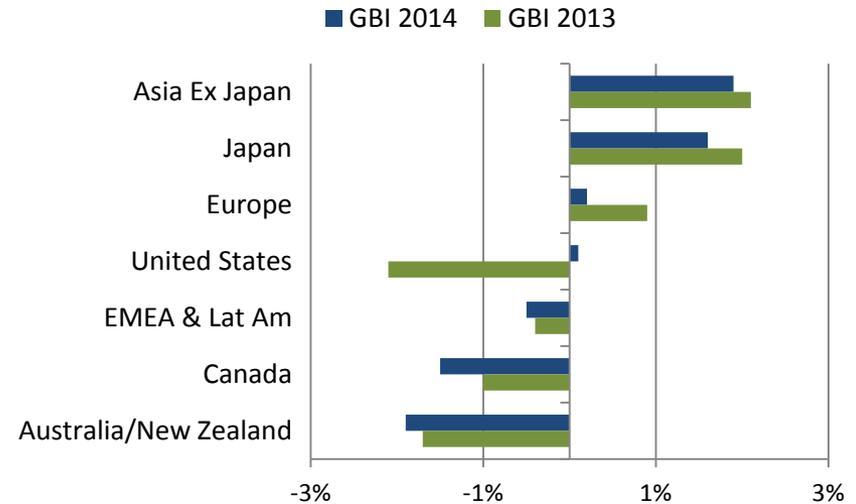


GBI Flagship

Positioning as of December 31, 2014

Regions	GBI		Over/Under	
	2014	2013	2014	2013
Asia Ex Japan	10.3%	10.4%	1.9%	2.1%
Japan	8.8%	9.8%	1.6%	2.0%
Europe	22.5%	25.7%	0.2%	0.9%
United States	52.5%	46.5%	0.1%	-2.1%
EMEA & Lat Am	3.2%	3.7%	-0.5%	-0.4%
Canada	2.1%	2.7%	-1.5%	-1.0%
Australia/New Zealand	0.7%	1.1%	-1.9%	-1.7%

Sectors	GBI		Over/Under	
	2014	2013	2014	2013
Information Technology	16.3%	13.5%	2.5%	1.0%
Telecommunication Svcs.	5.0%	5.8%	1.2%	1.7%
Consumer Discretionary	12.6%	13.3%	0.6%	1.4%
Financials	22.2%	21.5%	0.4%	-0.1%
Energy	7.9%	10.6%	-0.1%	0.8%
Materials	5.0%	5.2%	-0.4%	-0.8%
Health Care	11.0%	9.4%	-0.6%	-0.9%
Industrials	9.6%	10.6%	-0.9%	-0.3%
Utilities	2.4%	2.2%	-1.0%	-0.9%
Consumer Staples	7.6%	7.6%	-2.1%	-2.2%



Benchmark: MSCI ACWI

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GBI Flagship

Portfolio Characteristics as of December 31, 2014

	Portfolio Characteristics	GBI Flagship			MSCI ACWI		
		2014	2013	3/9/2009 ¹	2014	2013	3/9/2009 ¹
Valuation Metrics	Market Capitalization	\$97.6B	\$87.7B	\$44.7B	\$91.4B	\$85.0B	\$43.6B
	Price/Earnings – Trailing	16.5x	15.2x	9.2x	17.0x	16.0x	9.0x
	Price/Earnings – Forward	14.8x	14.6x	9.4x	15.8x	15.3x	9.5x
	Price/Book	2.0x	1.9x	1.4x	2.1x	2.0x	1.2x
	Dividend Yield	2.2%	2.2%	4.1%	2.4%	2.4%	4.5%
Quality Metrics	Estimated 3-5 Year EPS Growth	12.1%	12.5%	11.3%	11.1%	11.7%	10.6%
	Return on Equity	18.1%	17.8%	19.1%	16.9%	17.3%	17.6%
	Long-Term Debt/Capital	36.8%	34.0%	29.4%	34.6%	34.3%	32.3%
Risk Metrics	Beta	1.0	1.0	1.0	1.0	1.0	1.0

¹ Market bottom on March 9, 2009.

GBI Flagship

Performance Attribution and Risk

GBI Relative Performance and Risk

	2014	2013	2012	2011	2010	2009	2008	2007	Cumulative	Annualized	
										3-Year	ITD
Alpha Attribution (bps)											
Stock	38	62	33	(7)	(10)	27	6	41	237	45	27
Region	10	(33)	37	5	21	49	17	1	181	9	21
Sector	(21)	2	(5)	9	5	1	49	1	31	(12)	4
Total	27	31	65	7	16	77	72	43	450	42	52
Risk Factors (%)											
Stock Specific	48%	46%	46%	33%	32%	49%	53%	52%	45%	46%	45%
Region	17%	23%	31%	34%	34%	14%	5%	7%	21%	24%	21%
Sector	7%	9%	11%	21%	14%	12%	9%	5%	11%	9%	11%
Volatility/Beta	19%	18%	4%	7%	12%	7%	2%	7%	9%	14%	9%
Momentum	7%	1%	7%	4%	5%	13%	22%	13%	9%	5%	9%
Growth	1%	2%	1%	0%	2%	3%	2%	3%	2%	1%	2%
Value	0%	1%	-1%	0%	0%	0%	3%	6%	1%	0%	1%
Size	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Leverage	0%	0%	1%	0%	0%	2%	3%	5%	1%	0%	1%
Liquidity	1%	1%	1%	0%	1%	0%	0%	1%	1%	1%	1%
Total	100%										

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GBI Gold

Performance as of December 31, 2014

GBI GOLD

Year	AUM (\$ in millions)	Investment Return (%)	Alpha ¹ (bps)	Information Ratio
2014	104	2.6	1331	2.0
2013	198	-44.2	-341	-0.6
2012	816	2.0	233	0.9
2011	705	-5.8	248	0.8
2010	491	35.3	57	1.3
2009 ²	266	5.2	-3	-0.9

- GBI Gold alpha was 1331 basis points in 2014
- GBI Gold rose 2.6% in 2014
- In 2014, GBI Gold outperformed
 - Gold – down 2%
 - Silver – down 19%
 - The XAU precious metals index – down 18%
- Sources of alpha
 - Overweights in two take-over targets
 - Avoidance of large index names with exposure to Russia and Argentina
 - Avoidance of copper exposure

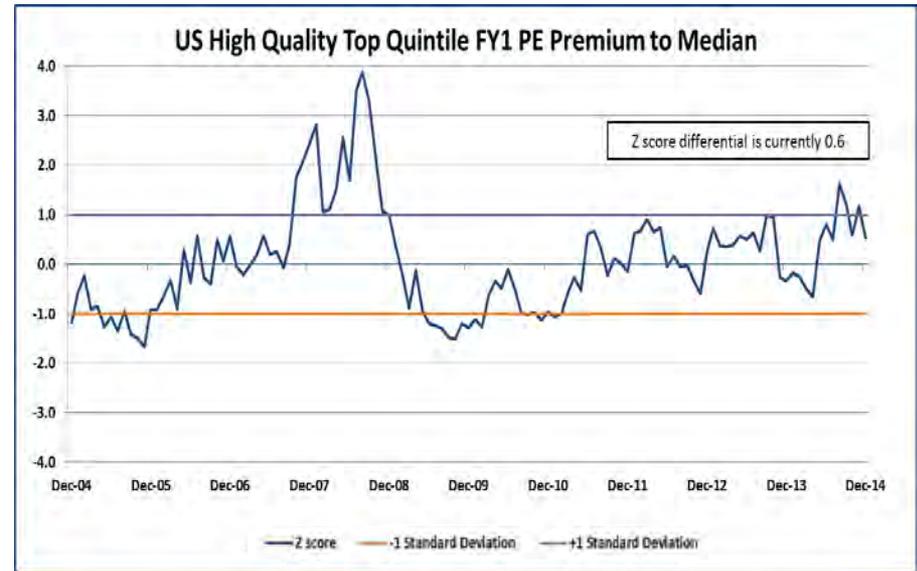
GBI US High Quality

Performance as of December 31, 2014

GBI US HIGH QUALITY

Year	AUM (\$ in millions)	Investment Return (%)
2014	98	16.5
2013	102	31.3
2012	99	17.3
2011 ¹	100	-4.8

- Performance since inception has been in line with peers
- Outperformed peers in 2014



IPM Accomplishments and Priorities

2014 Accomplishments

Strengthen the relationship with GBI Alpha Opportunity deal sourcing partners

Execute Quant platform expansion in collaboration with Asset Allocation

Develop an analyst training and valuation program

Reorganized/Streamlined IPM Team

Process improvements

2015 Priorities

Implement new IPM process of “Fishing Holes”

Build out Alpha Opportunity portfolio

Implement Texas Way valuation

Develop screening tools based on external managers’ best ideas

Develop career crafting across IPM

Top Priority – IPM Fishing Holes

- Fishing Holes are stock screening tools
- IPM implemented 8 universal and standardized screens to assist portfolio and sector managers
- Implementation began in January 2015
- Fishing hole screens are run monthly for all regions and sectors

Fishing Holes			
Value	Quality	Moat	Momentum
Measure of stock price based on relative and intrinsic value	Measure of a firm's track record of generating cash and managing growth	Measure of firms that will maintain or improve cash flow return on investment (CFROI)	Measure of price and earnings momentum
Capital Discipline	Profitability	Quant	Contrarian
Measure of stock buybacks and dividend growth	Measure of current and future profitability	GBI Quant team's internal rankings	Measure of negative momentum, good quality, and good value

Summary

- Despite a challenging year for active funds, GBI continued to outperform in 2014
- GBI has outperformed seven years in a row
 - Only 3% of global equity funds have accomplished this
- Since inception, GBI has produced an annualized alpha of 52 basis points versus the 50 basis point target

APPENDIX

GBI Flagship STAR Report



GBI Flagship vs. MSCI ACWI (US Gross & Int'l Net)

Statistical Tracking And Reporting (STAR) Report

Monthly Data from 12/07 to 12/14



Performance by Period (Inception: 12/31/07)

Period	Portfolio	B'mark	VFB	T.E.	I.R.
3-month	0.53%	0.49%	0.04%		
YTD	4.51%	4.24%	0.27%		
1-year	4.51%	4.24%	0.27%	1.00%	0.27
2-year	13.43%	13.14%	0.29%	0.78%	0.37
3-year	14.54%	14.13%	0.41%	0.72%	0.57
5-year	9.47%	9.19%	0.28%	0.87%	0.32
10-year	N/A	N/A	N/A	N/A	N/A
Inception	3.55%	3.04%	0.51%	1.26%	0.41

Performance by Year:

Year	Portfolio	B'mark	Excess	
Start Date: 12/31/07	2008	2.82%	2.39%	0.43%
	2008	(41.49%)	(42.21%)	0.72%
	2009	35.40%	34.63%	0.77%
End Date: 12/31/14	2010	12.83%	12.67%	0.16%
	2011	(7.27%)	(7.35%)	0.07%
	2012	16.78%	16.13%	0.65%
	2013	23.11%	22.80%	0.31%
	2014	4.51%	4.24%	0.27%

Valuation Model

Overall Performance (Since Inception 12/31/07)

Cumulative Performance:

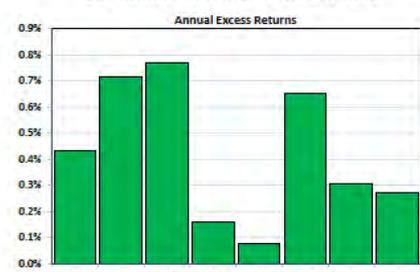
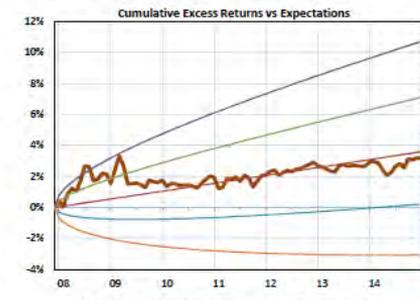
Portfolio	Benchmark	Periods	R-Squared
28.1%	23.6%	85	99.6%
4.4%	4.4%	Tracking Error	1.26%

Annualized Performance:

Portfolio	B'mark	Diff	Ex. Ret.	Risk Free	
Return	3.55%	3.04%	0.51%	0.44%	0.36%
St. Dev.	18.55%	18.80%	(0.25%)	1.26%	0.23%
Best Month	11.10%	11.80%	(0.71%)	0.95%	0.38%
Worst Month	(19.47%)	(19.82%)	0.35%	(1.14%)	(0.01%)
Skew	(0.77)	(0.76)		-0.16	
Kurtosis	1.61	1.64		1.49	
Best 12 Mths	55.62%	58.12%			
Worst 12 Mths	(46.77%)	(48.21%)			
Up Capture	57.04%	57.26%			
Down Capture	(41.25%)	(42.05%)			

Risk Summary:

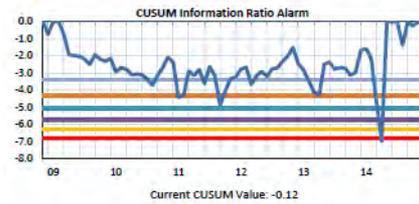
Info. Ratio	Sharpe	0.17	Hit Rt Up	47%	
M2 Premium	3.60%	Treynor	0.03	Hit Rt Dn	67%
Beta	0.98	Sortino	0.15	Hit Rt Tot	55%
Jensen's alpha	0.55%	5% hVar	(0.60%)		



GBI Flagship vs. MSCI ACWI (US Gross & Int'l Net)

Statistical Tracking And Reporting (STAR) Report

Monthly Data from 12/07 to 12/14

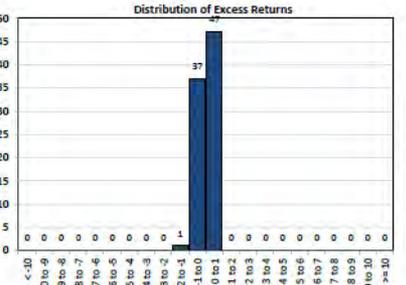


Hit Rate Analysis:

Periods	Hit Rate	Avg Ex Ret	
Benchmark Up	49	46.9%	(0.01%)
Benchmark Down	36	66.7%	0.11%
All Periods	85	55.3%	0.04%

Hit Rate During Various Environments:

Value/ Growth	Value	Neutral	Growth
Periods	21	44	20
Hit Rate	19.0%	59.1%	85.0%
Avg Ex Ret	(0.25%)	0.04%	0.32%
Sm value/ Sm Growth	Value	Neutral	Growth
Periods	17	53	15
Hit Rate	29.4%	54.7%	86.7%
Avg Ex Ret	(0.17%)	(0.00%)	0.42%
Equity Size	Large	Neutral	Small
Periods	18	39	28
Hit Rate	38.9%	64.1%	53.6%
Avg Ex Ret	(0.00%)	0.05%	0.05%
Core/ High Yield	Core	Neutral	High Yield
Periods	19	32	34
Hit Rate	63.2%	56.3%	50.0%
Avg Ex Ret	0.16%	0.00%	(0.00%)



US/ Intl Bonds	US	Neutral	Global
Periods	23	40	22
Hit Rate	60.9%	52.5%	54.5%
Avg Ex Ret	0.09%	0.00%	0.05%
Stocks/ Bonds	Stocks	Neutral	Bonds
Periods	43	15	27
Hit Rate	55.8%	53.3%	55.6%
Avg Ex Ret	0.02%	(0.01%)	0.10%
US/ Intl Stocks	US	Neutral	Intl
Periods	33	25	27
Hit Rate	42.4%	76.0%	51.9%
Avg Ex Ret	(0.07%)	0.22%	0.00%



GBI Gold Fund STAR Report



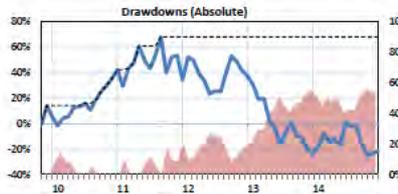
Gold Fund vs. Gold Fund Benchmark

Statistical Tracking And Reporting (STAR) Report

Monthly Data from 10/09 to 12/14



Avg. Monthly Excess Return: 0.26%



Performance by Period (Inception: 10/31/09)

Period	Portfolio	B'mark	VFB	T.E.	I.R.
3-month	(7.08%)	(9.31%)		2.24%	
YTD	2.56%	(10.75%)		13.31%	
1-year	2.56%	(10.75%)		13.31%	6.64%
2-year	(24.33%)	(27.29%)		2.96%	6.77%
3-year	(16.41%)	(19.23%)		2.82%	5.67%
5-year	(5.73%)	(8.22%)		2.49%	4.61%
10-year	N/A	N/A		N/A	N/A
Inception	(4.55%)	(6.95%)		2.40%	4.50%

Performance by Year:

Year	Portfolio	B'mark	Excess
Start Date: 2009	5.19%	5.21%	(0.03%)
10/31/09	35.30%	34.73%	0.57%
2011	(5.79%)	(8.27%)	2.48%
End Date: 2012	1.99%	(0.33%)	2.33%
12/31/14	(44.17%)	(40.76%)	(3.41%)
2014	2.56%	(10.75%)	13.31%

Valuation Model

Overall Performance (Since Inception 10/31/09)

Cumulative Performance:

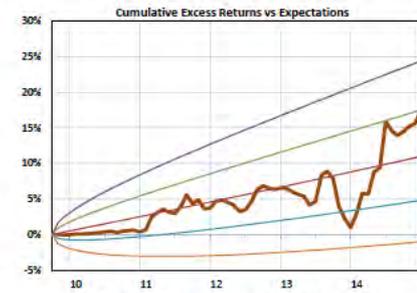
Portfolio	B'mark	Periods
(21.7%)	(31.5%)	63
Excess Return	9.8%	Tracking Error
		4.5%

Annualized Performance:

Portfolio	B'mark	Diff	Ex. Ret.	Risk Free
Return	(4.55%)	(6.95%)	2.40%	3.06%
St. Dev.	28.71%	26.37%	2.34%	4.50%
Best Month	21.64%	15.74%	5.90%	5.90%
Worst Month	(18.88%)	(15.71%)	(1.16%)	(3.61%)
Skew	0.16	(0.05)		1.35
Kurtosis	(0.44)	(0.64)		6.20
Best 12 Mths	42.51%	38.08%		
Worst 12 Mths	(44.17%)	(41.22%)		
Up Capture	107.80%	92.96%		
Down Capture	(59.44%)	(58.29%)		

Risk Summary:

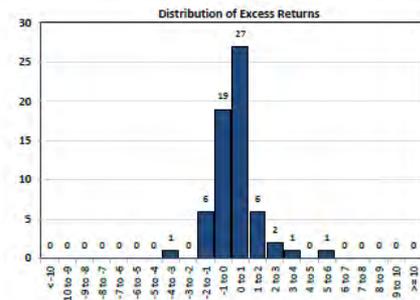
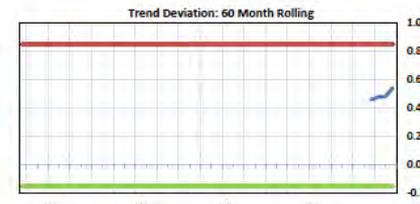
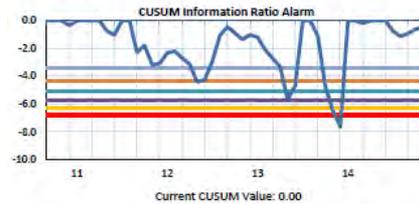
Info. Ratio	0.53	Sharpe	(0.16)	Hit Rt Up	76%
M2 Premium	-4.18%	Treynor	(0.04)	Hit Rt Dn	40%
Beta	1.08	Sortino	(0.17)	Hit Rt Tot	59%
Jensen's alpha	2.94%	5% hvar	(1.21%)		



Gold Fund vs. Gold Fund Benchmark

Statistical Tracking And Reporting (STAR) Report

Monthly Data from 10/09 to 12/14



Hit Rate Analysis:

Periods	Hit Rate	Avg Ex Ret
Benchmark Up	33	75.6%
Benchmark Down	30	40.0%
All Periods	63	58.7%

Hit Rate During Various Environments:

Value/ Growth	Value	Neutral	Growth
Outperf.			Outperf.
Periods	12	37	14
Hit Rate	50.0%	59.5%	64.3%
Avg Ex Ret	0.15%	0.30%	0.24%
Sm Value/ Sm Growth	Value	Neutral	Growth
Outperf.			Outperf.
Periods	7	47	9
Hit Rate	42.9%	59.6%	66.7%
Avg Ex Ret	(0.11%)	0.26%	0.56%
Equity Size	Large	Neutral	Small
Outperf.			Outperf.
Periods	13	31	19
Hit Rate	53.0%	51.6%	73.7%
Avg Ex Ret	0.04%	0.08%	0.71%
Core/ High Yield	Core	Neutral	High Yield
Outperf.			Outperf.
Periods	11	28	24
Hit Rate	54.5%	46.4%	75.0%
Avg Ex Ret	(0.03%)	0.35%	0.29%

US/ Intl Bonds	US	Neutral	Global
Outperf.			Outperf.
Periods	17	32	14
Hit Rate	58.8%	50.0%	78.6%
Avg Ex Ret	(0.19%)	0.13%	1.11%
Stocks/ Bonds	Large	Neutral	Small
Outperf.			Outperf.
Periods	35	11	17
Hit Rate	60.0%	63.6%	52.9%
Avg Ex Ret	0.28%	0.36%	0.16%
US/ Intl Stocks	US	Neutral	Intl
Outperf.			Outperf.
Periods	27	21	15
Hit Rate	48.1%	71.4%	60.0%
Avg Ex Ret	(0.08%)	0.83%	0.08%





Trading Annual Review

Bernie Bozzelli - Managing Director

Jaime Llano – Director

Steve Peterson and Jared Morris – Senior Investment Managers

March 2015

Agenda

- I. Mandate
- II. Team Profile
- III. Who We Serve
- IV. Trading Partner Network
- V. Broker Certification
- VI. Equity Trading Performance
- VII. Passive Equity Management
- VIII. 2015 Priorities
 - START/Tabb Analytics
 - FX Margin Analysis
- IX. Special Topic: Risk Parity Implementation
- X. 2014 Priorities Update
 - Roll Monitor
- XI. Appendix

Trading Mandate



Implementation

- **Outperformed the median equity trading desk by ten basis points in 2014**, retaining **\$25.5 million** of TRS alpha which placed TRS in the **first quartile** versus our peer universe. TRS trading has placed in the first quartile in four of the last five years. Superior execution is the result of having the right people with the right systems/technology and the right counterparties
 - Global execution across multiple asset classes including equities, futures, forwards, foreign exchange, and CDX
 - Manage a global network of 41 brokerage firms
 - Monitor key variables that contribute to reducing execution costs including volatility, liquidity, and market structure
 - Multi-asset execution totaled \$265 billion for 2014 including \$30 billion in Equities, \$177 billion in Futures/Derivatives and \$58 billion in Foreign Exchange
-



Index Management

- Passive Management
 - Manage approximately \$3 billion in U.S., EAFE+Canada, and Emerging Markets
 - Benchmark indices are fully replicated in the portfolio in real-time to achieve tight tracking error and in-line performance
-



Market Intelligence

- Collaborate across the division to provide implementation solutions. Work with Asset Allocation, IPM, Risk and EPU to develop optimal implementation strategies
 - Examples include assessing the market impact of a trade, transition management between external managers, short-term technical model to aid in the timing of execution, Foreign Exchange (FX) hedging analysis, Options Analysis, Credit Default Swaps (CDX), and value added analysis of Corporate Actions
 - Developed a systematic framework allowing TRS to invest directly in commodity futures
 - Commission Management
-

Trading Team



Bernie Bozzelli, CFA
Managing Director
MPA, Accounting, UT Austin
20 years TRS



Jaime Llano
Director
Futures and Currency
MBA, Finance, St. Edwards
10 years TRS
16 years experience



Demetrius Pope
Senior Investment Manager
Global Equity - Europe
BBA, Sam Houston
8 years TRS
14 years experience



Jared Morris, CFA
Senior Investment Manager
US Equity and Futures
MS, Finance, Texas A&M
4 years TRS
9 years experience



Scott Moore
Senior Investment Manager
Global Equity - Asia
MBA, Thunderbird University
11 years TRS
37 years experience



Steve Peterson
Senior Investment Manager
US Equity and Fixed Income
MBA, California Lutheran University
7 years TRS
20 years experience

3 MBAs
2 CFAs
1 Masters of Accounting
1 MS, Finance
20 Years Average Experience



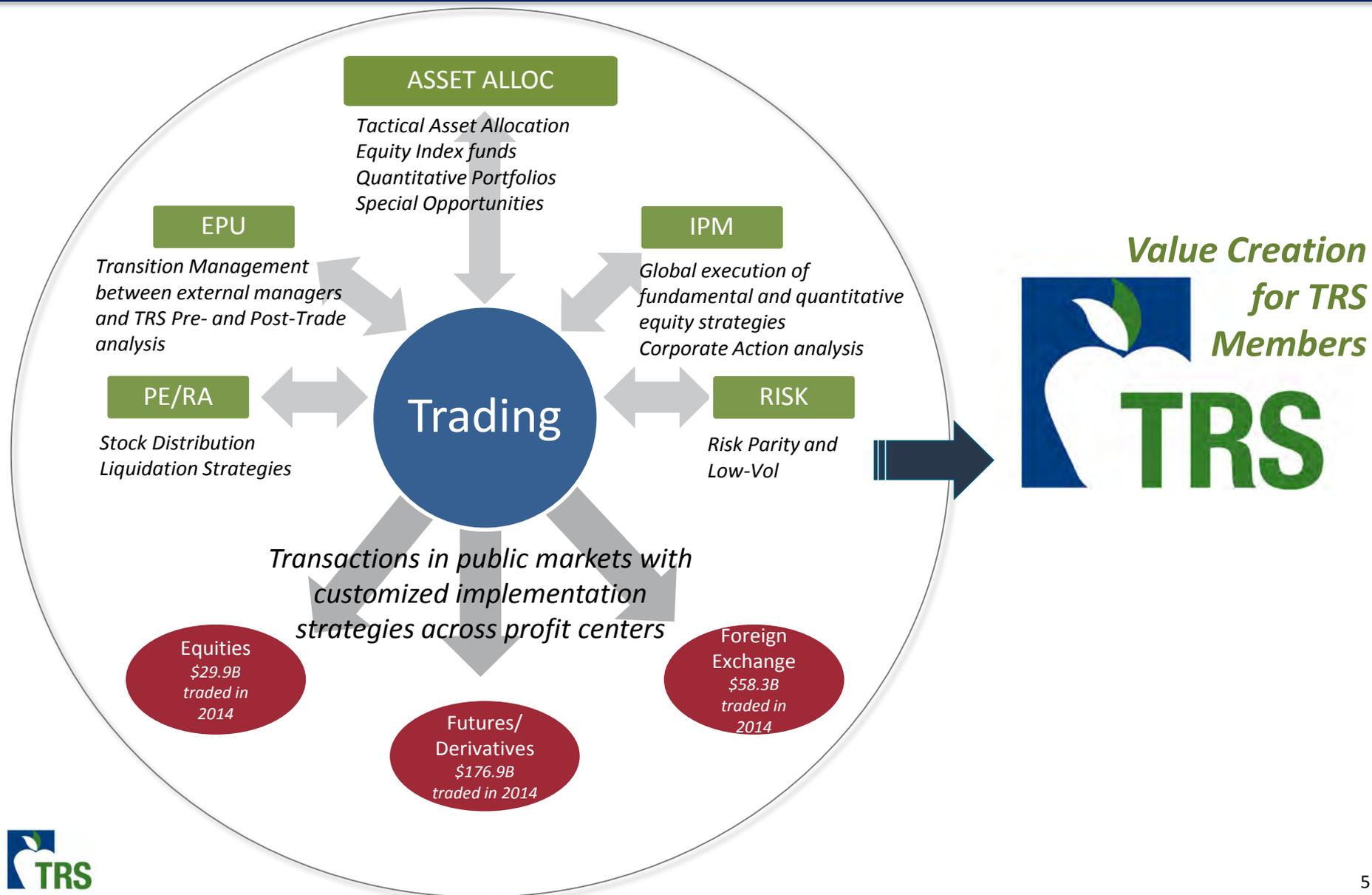
Pat Barker
Senior Analyst
Trading Analyst
26 years TRS
38 years experience



Paige Douthit
Administrative Assistant
Team Support
1 year TRS
6 years experience

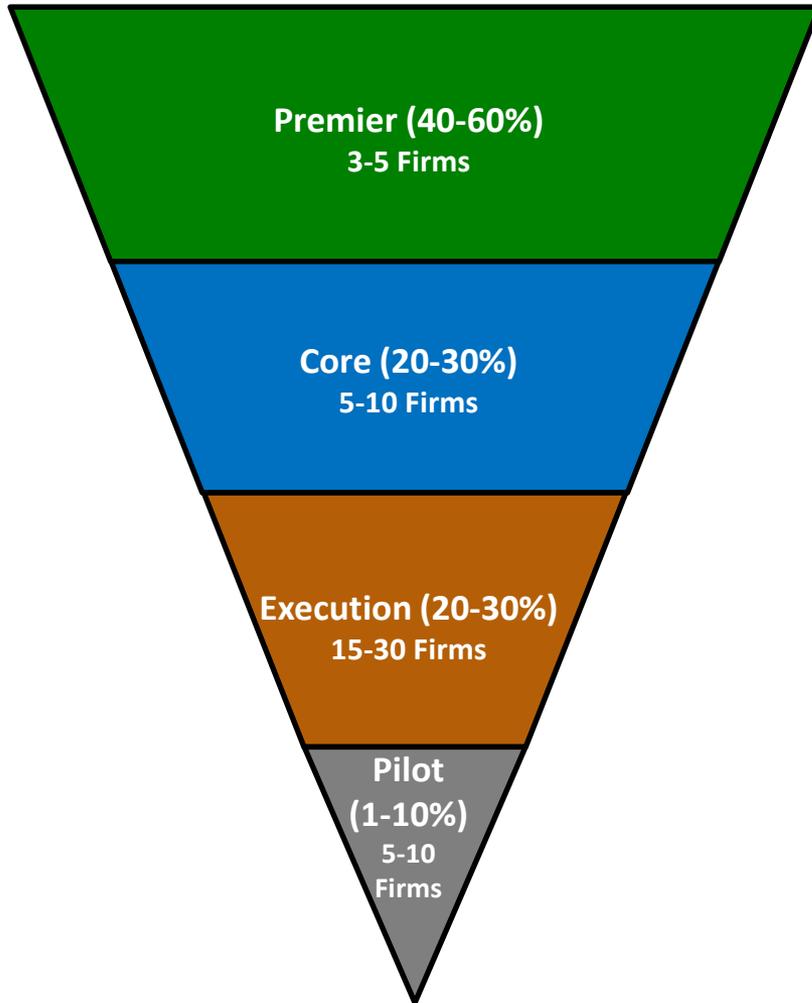
Who We Serve

Cross-Divisional Collaboration



Trading Partner Network

As of December 31, 2014



4 Firms

- Deliver focused and high capacity relationships globally and across all asset classes
- Highly integrated with TRS trading, risk management, administrative systems, etc.
- Leading providers of investment services – TRS is a preferred client, receiving the highest level of service available

6 Firms

- Well established firms with overall world class global services capabilities
- World renowned for research and technology
- Best-of-breed product process development

25 Firms

- Includes firms who have a specialty in finding liquidity for hard-to-trade names or firms who have a niche in electronic trading
- Firms who have a core competency of trading internationally in particular regions are also included

6 Firms

- All newly approved firms doing business with TRS

Broker Certification Process

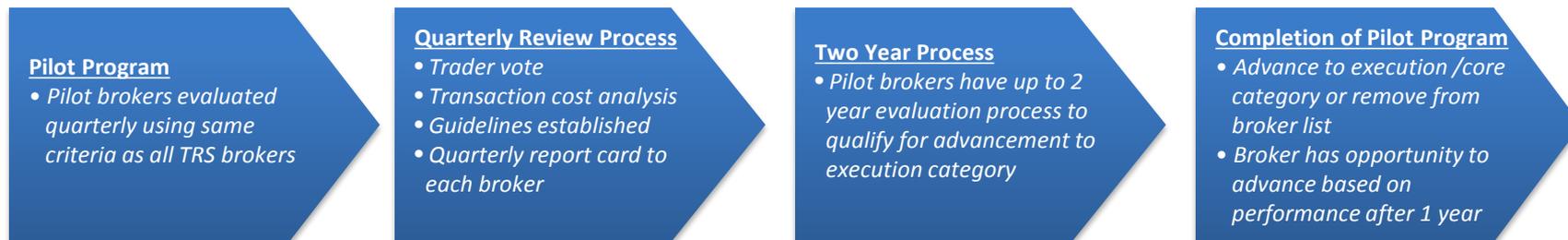
As of December 31, 2014

Phase 1 - Certification Process for New Firms



If acceptable, then ...

Phase 2 - Broker added to Pilot Program



Equity Trading Performance

	1Q14	2Q14	3Q14	4Q14	2014	2013
TRs Performance vs. Post Trade Ace (bps)	7	8	1	14	8	2
Median Desk Performance vs. Post Trade Ace (bps)	-2	-2	-1	-1	-2	-4
TRs vs. Median Desk (bps)	9	10	2	15	10	6
TRs vs. Median Desk (\$ in millions)	\$5.1	\$4.6	\$1.2	\$14.5	\$25.5	\$18.2
1st Quartile Desk Performance vs. Post Trade Ace (bps)	4	4	3	2	3	2
TRs vs. 1st Quartile Desk (bps)	3	4	-2	12	5	0
TRs Quartile Placement	1st	1st	2nd	1st	1st	1st

- The total Equity trading cost for 2014 includes \$19.6 million in market impact (8 bps) and \$26.0 million in commissions and fees (10 bps)
- How is trading measured?
 - Consistently outperformed the peer median and has placed in the first quartile in four of the last five years
 - Every order is measured versus the order arrival price and adjusted by ITG/Plexus' Post Trade Ace benchmark in order to account for current market conditions
 - Trading's benchmark-adjusted performance is then compared to the benchmark-adjusted performance of its peers

Passive Equity Management

Performance as of December 31, 2014

Passive Equities	Market Value	QTD	1-Year
Total USA	\$678.4	6.01	xxx
MSCI IMI		5.13	xxx
Alpha		0.88	xxx
Non-US Developed	\$1,395.4	(3.21)	(3.86)
MSCI EAFE + Canada		(3.69)	(4.32)
Alpha		0.48	0.46
Emerging Markets	\$1,021.8	(3.92)	(1.47)
MSCI Emerging Markets		(4.50)	(2.19)
Alpha		0.58	0.72

2015 Priority

START/Tabb Analytics

How does current market structure contribute to the principal-agent problem?

- Principal-Agent problem
 - Are brokers routing our orders in our best interest or theirs?
 - Does execution cost versus execution quality play a role in their decision making?
- Fragmented liquidity
 - Where do stocks trade?
 - How do exchanges and dark pools compete for market share?
 - How does this contribute to the principal-agent problem?
- High Frequency Trading
 - What's the difference between good and bad HFT?
 - How does HFT use fragmented liquidity to make profits?
 - How does HFT contribute to the principal-agent problem?

2015 Priority

START/Tabb Analytics

2015 Trading priorities to address the principal-agent problem

START Program by Trade Informatics

- What is START?
 - Automated trading platform
 - Preset plan for each order
 - Routes small child orders through pre-determined broker pipes
- What are the advantages?
 - Profiles order flow to set an optimal trading schedule
 - In depth analysis of order, broker and venue performance
 - Commission management

Clarity by Tabb Analytics

- What is Clarity?
 - Consulting service that helps investors better understand order routing practices and venue usage
- Analytics that standardize the measurement of:
 - Routing strategy
 - Opportunity cost
 - Venue Toxicity
 - Fill rates
 - Short-term momentum

2015 Priority

Clearing Foreign Exchange (FX) – Cash Management

Current Process

- TRS has a single currency margin agreement with Futures Commission Merchant (FCM) clearing where our FCM repatriates all foreign balances on our behalf
- During calendar year 2014, our FCM repatriated:
 - USD \$280 million
 - 204 transactions
 - 9 currency pairs

Pros of the current process

- Operationally convenient

Cons of the current process

- Lack of transparency

Priority 2015

- Review and analyze the current process and determine the benefits of bringing FX repatriation in house

Possible Outcomes

- Our FCM is providing a service inline with expected market conditions and its fees are fair for the services provided
- TRS could realize significant savings by bringing FX repatriation in house

Special Topic

Risk Parity Implementation – Trading Perspective

Products

- Commodity Futures
- Equity and Fixed Income Futures
- Credit Default Swaps Indexes
- Foreign Exchange Forwards
- London Metal Exchange products

	Fundings	AUM
Dec 2014		\$272.1m
Q1/2015	\$250m	
Q2/2015	\$400m	
Q3/2015	\$500m	
Q4/2015	\$500m	
Total		\$1922.1m

Training/Processes

- Attending training sessions with CME, NYMEX and LME exchanges
- Coordinated with other buy side institutions
- Utilized our broker dealer network
- Created processes to ensure optimal execution while also providing systematic controls to eliminate potential trading errors

Commodity Letter

- The Investment Policy did not allow TRS to trade commodities due to the risk of physical delivery
- Worked with Operations, Legal, Audit and our Clearing Agent on a commodity letter that eliminates the delivery risk by creating a robust process
- By being able to trade commodities directly, we estimate that the commodity letter will generate approximately \$5 million in annual savings

2014 Priority – Follow-Up

Futures Rolls

Futures Roll Monitor – 2014 Priority focusing on enhancing execution prices on futures rolls

Goal - Generate alpha for fund by achieving superior prices during the “rolling” of futures contracts

- Process – Trading partners are asked to fill out specific information regarding each roll
- Incentive – Top performers are rewarded with order flow in rolls
- Design – Simple template aggregates views from trading partners on timing for each roll
- Strategy – Utilize the views of trading partners in timing the execution for each roll

Example: Futures Roll Strategy Template

Futures Roll Strategy for September Russell 2000 Mini									
Identification							Deadline	Roll Period	
Region	Product	Frequency	Month	Ticker	Symbol	Type	Due By	Start	End
USA	Russell 2000 Mini	Quarterly	September	RTAU4	RTAU4Z4	Index	9/5/2014	9/8/2014	9/18/2014
Recommended Strategy									
Firm	Estimated Probability of Trading Period Containing the HIGH of the Roll			Estimated Probability of Trading Period Containing the LOW of the Roll			Estimated Range		Projected VWAP
	Early	Middle	Late	Early	Middle	Late	High	Low	Longs
Firm 1	0%	100%	0%	100%	0%	0%	-4.60	-5.50	-5.00
Firm 2	70%	30%	0%	0%	10%	90%	-4.95	-5.70	-5.32
Firm 3	50%	40%	10%	10%	30%	60%	-4.90	-5.80	-5.40
Firm 4	60%	30%	10%	10%	30%	60%	-4.80	-5.80	-5.15
Firm 5	70%	20%	10%	10%	20%	70%	-4.90	-5.15	-5.00
Firm 6	35%	35%	30%	30%	30%	40%	-4.00	-5.35	-5.10
Firm 7	0%	30%	70%	20%	0%	80%	-4.50	-6.00	-5.00
Firm 8	70%	15%	15%	15%	15%	70%	-4.85	-5.40	-5.15
Firm 9	20%	50%	30%	20%	50%	30%	-4.80	-5.40	-5.18
Average	42%	39%	19%	24%	21%	56%	-4.70	-5.57	-5.14

2014 Priority – Follow Up

Futures Rolls (cont'd)

- 2014 Results – Executed prices on futures included in the Roll Monitor outperformed the average price benchmark by approximately 0.25 bps, or approximately \$1.15 million

<i>2014 Spread Adjusted Roll Monitor Performance</i>	
	<i>Totals</i>
\$USD Notional Execution Value	\$46,437,532,599
Performance vs. Spread Adjusted VWAP \$USD	\$1,158,749
Performance vs. Spread Adjusted VWAP (bps)	0.25

- Going Forward – The Futures Roll Monitor will be expanded in 2015 to cover a larger percentage of futures rolls that are traded at TRS
- Future Results – Better execution levels as we continue to refine the process

APPENDIX

Special Topic: Kinder Morgan Inc. (KMI) Warrants

Follow Up

- Positioning in warrants continued to be accretive in 2014.



Special Topic: Kinder Morgan Inc. (KMI) Warrants

Follow Up (cont'd)

- Over 80% of calendar year gain of \$6,323,357 due to positioning.

2013 P&L: Actual			2014 P&L: Actual		
Ticker	12-31-13 Closing Price		Ticker	12-31-14 Closing Price	
KMI/WS	\$4.06		KMI/WS	\$4.26	
	Shares	Cash Flow		Shares	Cash Flow
Initial Investment	10,000,000	-\$25,954,843	Initial Investment	10,000,000	-\$25,954,843
Shares Sold	(5,108,624)	\$27,003,141	Shares Sold	(6,608,624)	\$33,676,498
Additional Shares Bought	308,624	-\$1,389,795	Additional Shares Bought	2,608,624	-\$6,187,795
Current Position	5,200,000	-\$341,497	Current Position	6,000,000	\$1,533,860
Net Cash Flow		-\$341,497	Net Cash Flow		\$1,533,860
+ Current Value of Shares	5,200,000	\$21,112,000	+ Current Value of Shares	6,000,000	\$25,560,000
= Gain		\$20,770,503	= Gain		\$27,093,860
% Return		80.03%	% Return		104.39%
Resulting Basis/Share	5,200,000	\$0.07	Resulting Basis/Share	6,000,000	-\$0.26
% of Original Investment		1.32%	% of Original Investment		-5.91%
2014 P&L: If Nothing Done			2014 Value Added From Positioning in KMI Warrants		
Ticker	12-31-14 Closing Price				
KMI/WS	\$4.26				
	Shares	Cash Flow			
Initial Investment	10,000,000	-\$25,954,843			
Shares Sold	(5,108,624)	\$27,003,141			
Additional Shares Bought	308,624	-\$1,389,795			
Current Position	5,200,000	-\$341,497			
Net Cash Flow		-\$341,497			
+ Current Value of Shares	5,200,000	\$22,152,000			
= Gain		\$21,810,503			
% Return		84.03%			
Resulting Basis/Share	5,200,000	\$0.07			
% of Original Investment		1.32%			
			2014 Year End P&L: Actual	\$6,323,357	
			- 2014 Year End P&L: If Nothing Done	\$1,040,000	
			2014 Added Value From Positioning	\$5,283,357	

Futures Transaction Cost Analysis

Futures Post Trade ISP December 2014 Rolls

Performance Summary

	Buys		Sells		Total	
Total Orders	12		13		25	
Total Contracts	18,753		12,460		31,213	
USD Notional Execution Value	\$1,268,583,553		\$1,249,853,010		\$2,518,436,563	
Commission/Contract	\$4.78		\$3.37		\$4.22	
Total Commission	\$89,688		\$42,052		\$131,740	
Commission (bps)	0.71		0.34		0.52	
Implementation Shortfall (USD)	(\$404,773)		(\$1,091,158)		(\$1,495,931)	
Implementation Shortfall (bps)	(3.19)		(8.73)		(5.94)	
Performance Measures	Basis Points		USD		Basis Points	
Performance vs. Benchmark	(0.92)	(\$116,121)	5.70	\$712,862	2.37	\$596,740
Performance vs. Arrival	(2.48)	(\$315,085)	(8.39)	(\$1,049,106)	(5.42)	(\$1,364,191)
Performance vs. VWAP	(0.92)	(\$116,121)	5.70	\$712,862	2.37	\$596,740
Performance vs. T-1	(14.46)	(\$1,834,105)	(4.00)	(\$499,746)	(9.27)	(\$2,333,851)
Performance vs. Open	(6.67)	(\$845,827)	(8.39)	(\$1,049,106)	(7.52)	(\$1,894,933)
Performance vs. Close	9.28	\$1,176,981	1.28	\$160,293	5.31	\$1,337,274

Most Important Trades Impacting USD Performance vs Benchmark

Security Identification	Trade Date	Notional Value (USD)	Notional % of Total	Performance - (bps)	Performance - (USD)	% Perf. Explained
BZV4 Index B ISPGEM CSOTC	August 29, 2014	\$67,735,826	2.69%	64.66	\$440,824	16.24%
CFU4 Index S ISPDEV JPFUT	August 29, 2014	\$100,513,385	3.99%	37.15	\$372,074	13.70%
RTAU4 Index B ISPSMC JPFUT	August 29, 2014	\$146,996,510	5.84%	(17.98)	(\$263,817)	9.72%
IBU4 Index S ISPDEV JPFUT	August 29, 2014	\$84,837,405	3.37%	29.38	\$248,502	9.15%
ZU4 Index B ISPDEV JPFUT	August 29, 2014	\$104,750,846	4.16%	(22.16)	(\$231,622)	8.53%
WNZ4 Comdty S ISPUT GSFUT	August 29, 2014	\$120,538,160	4.79%	(16.43)	(\$198,397)	7.31%
G Z4 Comdty S ISPOARNC JPFUT	August 29, 2014	\$158,959,358	6.31%	10.26	\$162,910	6.00%
EOU4 Index S ISPDEV JPFUT	August 29, 2014	\$63,387,246	2.52%	22.06	\$139,510	5.14%
PTU4 Index S ISPDEV MLBAFUT	August 29, 2014	\$37,808,638	1.50%	(33.90)	(\$128,608)	4.74%
CNZ4 Comdty B ISPOARNC GSFUT	August 29, 2014	\$606,586,902	24.09%	1.92	\$116,288	4.28%
Totals		\$1,492,114,278	59.25%	4.41	\$657,665	84.81%

Performance By Region

Region	Notional Value (USD)	Benchmark (bps)	vs Arrival (bps)	vs Open (bps)	vs Close (bps)	vs VWAP (bps)	vs T-1 (bps)
Africa	\$87,017,980	4.11	(56.88)	(56.88)	(5.77)	4.11	(40.64)
Asia	\$427,595,712	0.58	(14.65)	(14.65)	(2.26)	0.58	(27.08)
Australia	\$19,914,659	3.88	(3.98)	(3.98)	10.30	3.88	4.94
Europe	\$630,450,820	8.90	(2.69)	(2.69)	1.16	8.90	6.68
North America	\$1,285,721,567	(3.68)	(2.56)	(6.69)	3.18	(3.68)	(8.62)
South America	\$67,735,826	65.08			38.88	144.90	65.08
Emerging	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Developed	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Region	Notional Value (USD)	Benchmark (USD)	vs Arrival (USD)	vs Open (USD)	vs Close (USD)	vs VWAP (USD)	vs T-1 (USD)
Africa	\$87,017,980	\$35,745	(\$494,921)	(\$494,921)	(\$50,189)	\$35,745	(\$353,675)
Asia	\$427,595,712	\$24,921	(\$626,620)	(\$626,620)	(\$96,656)	\$24,921	(\$1,157,950)
Australia	\$19,914,659	\$7,731	(\$7,927)	(\$7,927)	\$20,506	\$7,731	\$9,844
Europe	\$630,450,820	\$561,265	(\$169,283)	(\$169,283)	\$72,997	\$561,265	\$421,327
North America	\$1,285,721,567	(\$473,745)	(\$328,811)	(\$859,553)	\$409,140	(\$473,745)	(\$1,107,997)
South America	\$67,735,826	\$440,824	\$263,369	\$263,369	\$981,476	\$440,824	(\$145,399)
Emerging	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Developed	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Performance By Broker

Broker ID	Notional Value (USD)	Benchmark (bps)	vs Arrival (bps)	vs Open (bps)	vs Close (bps)	vs VWAP (bps)	vs T-1 (bps)
BARFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
CSFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
CSOTC	\$106,970,453	50.36	24.62	24.62	99.33	50.36	(23.24)
DBFUT	\$408,275,744	(1.60)	(15.54)	(15.54)	(3.85)	(1.60)	(25.59)
GSFUT	\$989,087,574	(0.84)	1.99	(3.37)	6.45	(0.84)	2.47
GSOTC	\$0	0.00	0.00	0.00	0.00	0.00	0.00
JPFUT	\$857,101,380	3.97	(13.49)	(13.49)	(2.63)	3.97	(11.17)
JPOTC	\$7,363,929	(9.59)	(5.18)	(5.18)	21.42	(9.59)	(29.47)
MLBAFUT	\$149,637,483	(8.49)	(2.00)	(2.00)	0.24	(8.49)	(20.38)
MSFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Broker ID	Notional Value (USD)	Benchmark (USD)	vs Arrival (USD)	vs Open (USD)	vs Close (USD)	vs VWAP (USD)	vs T-1 (USD)
BARFUT	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CSFUT	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CSOTC	\$106,970,453	\$538,730	\$263,369	\$263,369	\$1,062,570	\$538,730	(\$248,610)
DBFUT	\$408,275,744	(\$65,255)	(\$634,546)	(\$634,546)	(\$157,243)	(\$65,255)	(\$1,044,896)
GSFUT	\$989,087,574	(\$82,856)	\$196,929	(\$333,812)	\$638,156	(\$82,856)	\$244,045
GSOTC	\$0	\$0	\$0	\$0	\$0	\$0	\$0
JPFUT	\$857,101,380	\$340,259	(\$1,156,138)	(\$1,156,138)	(\$225,585)	\$340,259	(\$957,718)
JPOTC	\$7,363,929	(\$7,066)	(\$3,815)	(\$3,815)	\$15,773	(\$7,066)	(\$21,700)
MLBAFUT	\$149,637,483	(\$127,072)	(\$29,990)	(\$29,990)	\$3,604	(\$127,072)	(\$304,971)
MSFUT	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Futures Transaction Cost Analysis

Trade List																							
Identification				Trade Information						Performance in bps						Performance in USD							
				Totals		\$131,740	\$2,518,436,563	100.00%	2.37	5.42	7.52	5.31	2.37	9.27	\$596,740	\$1,364,191	\$1,894,933	\$1,337,274	\$596,740	\$2,333,851			
Security	Account	Broker ID	Trade Date	Bench	B/S	Executed Price	Total Commission	Notional (USD)	% of Trade	Bench	Arrival	Open	Close	VWAP	T-1	Bench	Arrival	Open	Close	VWAP	T-1 Close		
AIU4 Index	ISPGEM	JPFUT	08/29/2014	VWAP	S	45,589.71	\$3,550	\$87,017,980	3.46%	4.11	56.55	56.55	5.76	4.11	40.48	\$35,745	\$494,920.77	\$494,920.77	\$50,189.03	\$35,745.25	\$353,675.50		
IHU4 Index	ISPGEM	DBFUT	08/29/2014	VWAP	B	8,028.99	\$23,972	\$96,235,519	3.82%	1.49	32.48	32.48	11.83	1.49	58.87	\$14,303	\$311,561.00	\$311,561.00	\$113,942.00	\$14,302.76	\$563,267.00		
IBU4 Comdty	ISPOARNC	DBFUT	08/29/2014	VWAP	S	146.22	\$520	\$126,673,052	5.03%	0.19	6.43	6.43	1.65	0.19	3.70	\$2,451	\$81,532.37	\$81,532.37	\$20,888.39	\$2,450.82	\$46,878.66		
KMU4 Index	ISPGEM	CSOTC	08/29/2014	VWAP	S	266.10	\$11,766	\$39,234,627	1.56%	25.02	0.00	0.00	20.71	25.02	26.24	\$97,906	\$0.00	\$0.00	\$81,093.74	\$97,906.08	\$103,210.22		
NIU4 Index	ISPDEV	DBFUT	08/29/2014	VWAP	S	15,400.15	\$5,144	\$114,813,664	4.56%	2.68	12.87	12.87	16.11	2.68	45.15	\$30,825	\$147,976.13	\$147,976.13	\$185,252.92	\$30,825.19	\$520,744.09		
TWU4 Index	ISPGEM	DBFUT	08/29/2014	VWAP	B	344.48	\$7,203	\$50,638,850	2.01%	10.68	16.92	16.92	16.92	10.68	15.02	\$54,012	\$85,550.03	\$85,550.03	\$85,550.03	\$54,011.95	\$76,149.97		
XPU4 Index	ISPDEV	DBFUT	08/29/2014	VWAP	B	5,603.23	\$426	\$19,914,659	0.79%	3.88	3.98	3.98	10.29	3.88	4.94	\$7,731	\$7,926.66	\$7,926.66	\$20,506.45	\$7,730.55	\$9,844.03		
CFU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	S	4,383.02	\$3,027	\$100,513,385	3.99%	37.15	5.75	5.75	24.06	37.15	34.38	\$372,074	\$57,759.22	\$57,759.22	\$241,218.87	\$372,074.18	\$344,414.93		
EOU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	S	412.72	\$1,459	\$63,387,246	2.52%	22.06	6.87	6.87	7.67	22.06	14.95	\$139,510	\$43,586.20	\$43,586.20	\$48,565.13	\$139,510.33	\$94,640.80		
G Z4 Comdty	ISPOARNC	JPFUT	08/29/2014	VWAP	S	113.54	\$1,330	\$158,959,358	6.31%	10.26	0.13	0.13	1.63	10.26	1.63	\$162,910	\$2,076.22	\$2,076.22	\$25,924.01	\$162,909.87	\$25,924.01		
GXU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	B	9,485.20	\$174	\$26,549,554	1.05%	35.70	3.90	3.90	45.22	35.70	27.17	\$94,448	\$10,356.49	\$10,356.49	\$119,519.46	\$94,447.70	\$71,935.60		
IBU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	S	10,734.56	\$2,134	\$84,837,405	3.37%	29.38	2.27	2.27	28.55	29.38	22.93	\$248,502	\$19,270.64	\$19,270.64	\$241,535.02	\$248,502.03	\$194,115.81		
QCU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	S	1,386.79	\$5,179	\$49,533,466	1.97%	3.75	5.13	5.13	3.33	3.75	23.76	\$18,560	\$25,436.63	\$25,436.63	\$16,507.10	\$18,559.85	\$117,435.88		
RXZ4 Comdty	ISPOARNC	JPFUT	08/29/2014	VWAP	B	149.75	\$190	\$29,982,112	1.19%	15.31	1.34	1.34	10.70	15.31	2.67	\$45,839	\$4,004.29	\$4,004.29	\$32,034.31	\$45,838.84	\$8,008.58		
SMU4 Index	ISPDEV	JPOTC	08/29/2014	VWAP	B	8,646.48	\$2,206	\$7,363,929	0.29%	9.60	5.18	5.18	21.37	9.60	29.56	\$7,066	\$3,815.47	\$3,815.47	\$15,772.89	\$7,065.62	\$21,700.50		
STU4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	S	20,424.41	\$69	\$4,573,517	0.18%	2.88	11.97	11.97	12.51	2.88	41.50	\$1,317	\$5,466.38	\$5,466.38	\$5,729.82	\$1,317.31	\$18,901.82		
Z U4 Index	ISPDEV	JPFUT	08/29/2014	VWAP	B	6,818.86	\$1,505	\$104,750,846	4.16%	22.16	13.01	13.01	26.26	22.16	21.11	\$231,622	\$136,123.28	\$136,123.28	\$274,380.62	\$231,622.11	\$220,613.88		
CNZ4 Comdty	ISPOARNC	GSFUT	08/29/2014	VWAP	B	137.15	\$9,642	\$606,586,902	24.09%	1.92	6.67	2.08	9.58	1.92	5.94	\$116,288	\$404,694.45	\$126,047.26	\$581,608.35	\$116,288.25	\$360,465.97		
ESU4 Index	ISPLCV	MLBAFUT	08/29/2014	VWAP	B	1,996.00	\$56	\$1,397,200	0.06%	9.92	15.01	15.01	26.23	9.92	1.25	\$1,388	\$2,100.00	\$2,100.00	\$3,675.00	\$1,387.50	\$175.00		
NQU4 Index	ISPLCV	MLBAFUT	08/29/2014	VWAP	B	4,074.97	\$5,434	\$110,431,645	4.38%	0.01	5.60	5.60	18.45	0.01	18.36	\$149	\$61,830.01	\$61,830.01	\$204,105.01	\$148.68	\$202,395.00		
PTU4 Index	ISPDEV	MLBAFUT	08/29/2014	VWAP	S	891.59	\$462	\$37,808,638	1.50%	33.90	24.78	24.78	53.71	33.90	27.01	\$128,608	\$93,920.27	\$93,920.27	\$204,176.09	\$128,608.02	\$102,401.49		
RTAU4 Index	ISPSMC	JPFUT	08/29/2014	VWAP	B	1,173.16	\$5,012	\$146,996,510	5.84%	17.98	33.84	33.84	15.85	17.98	71.74	\$263,817	\$495,749.95	\$495,749.95	\$232,619.95	\$263,816.85	\$1,047,069.95		
TUZ4 Comdty	ISPUST	GSFUT	08/29/2014	VWAP	S	109.52	\$4,497	\$261,962,511	10.40%	0.03	2.18	2.18	0.67	0.03	2.90	\$748	\$57,203.48	\$57,203.48	\$17,546.52	\$747.84	\$75,890.98		
WNZ4 Comdty	ISPUST	GSFUT	08/29/2014	VWAP	S	155.53	\$2,914	\$120,538,160	4.79%	16.43	21.93	21.93	6.15	16.43	15.93	\$198,397	\$264,968.63	\$264,968.63	\$74,093.88	\$198,396.56	\$192,312.38		
BVZ4 Index	ISPGEM	CSOTC	08/29/2014	VWAP	B	61,311.61	\$33,868	\$67,735,826	2.69%	64.66	38.73	38.73	142.83	64.66	21.51	\$440,824	\$263,369.23	\$263,369.23	\$981,476.08	\$440,823.97	\$145,399.29		

Technical Analysis

As of 1/25/15



SCOTT'S SIGNALS

Asset Class	ETF	Daily	Weekly	Monthly
Large Cap Value	IWD	Buy	Sell	Buy
Level for Signal Change		101.63	104.63	92.46
Large Cap Growth	IWF	Buy	Buy	Buy
Level for Signal Change		94	92.43	84.4
US Smallcap	IWM	Buy	Sell	Buy
Level for Signal Change		115.1	119.39	103.54
EAFE + CAD	VEA	Buy	Sell	Sell
Level for Signal Change		37.96	38.54	39.94
EM	EEM	Buy	Buy	Sell
Level for Signal Change		39.74	37.72	42.46
Treasuries	TLT	Sell	Buy	Buy
Level for Signal Change		135.59	127.96	116.83
High Yield	HYG	Sell	Sell	Sell
Level for Signal Change		114.34	90.23	94.95
TIPS	TIP	Buy	Buy	Sell
Level for Signal Change		113.25	112.36	116.25
Oil	USO	Sell	Sell	Sell
Level for Signal Change		18.03	19.36	34.98
Gold	GLD	Buy	Buy	Buy
Level for Signal Change		117.9	114.73	109.67
REITs	VNQ	Buy	Buy	Buy
Level for Signal Change		86.18	71.82	71.32

Sector	ETF	Daily	Weekly	Monthly
Consumer Discretionary	XLY	Buy	Sell	Buy
Level for Signal Change		69.03	71.82	61.68
Consumer Staples	XLP	Buy	Buy	Buy
Level for Signal Change		49.12	47.81	43.69
Energy	XLE	Buy	Sell	Sell
Level for Signal Change		75.32	78.45	91.06
Financials	XLF	Sell	Sell	Buy
Level for Signal Change		23.23	24.62	21.55
Healthcare	XLV	Buy	Buy	Buy
Level for Signal Change		69.84	67.63	59.21
Industrials	XLI	Buy	Sell	Buy
Level for Signal Change		54.92	56.58	48.83
Info Tech	XLK	Buy	Sell	Buy
Level for Signal Change		40.34	41.64	36.58
Materials	XLB	Buy	Sell	Buy
Level for Signal Change		47.71	49.09	44.09
Utilities	XLU	Buy	Buy	Buy
Level for Signal Change		48.28	46.65	41.9



Monthly Sector Rotation Report

Based on relative strength and momentum as of 1/31/15

Sector Rotation Outlook based on monthly data points

	2014			2015											
	Dec	Dec	Dec	Jan	Jan	Jan	Feb	Feb	Feb	Mar	Mar	Mar	Apr	Apr	Apr
US Sectors	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf
Consumer Discretionary	6	IMPROVING	1.17%	1	LEADING	-0.03%	2	LEADING	-	1	LEADING	-	1	LEADING	-
Consumer Staples	3	LEADING	-0.95%	3	LEADING	1.84%	3	LEADING	-						
Energy	8	LAGGING	0.76%	8	LAGGING	-1.78%	9	LAGGING	-						
Financials	1	LEADING	2.04%	2	LEADING	-3.89%	8	WEAKENING	-						
Health Care	4	LEADING	-1.03%	5	LEADING	4.28%	4	LEADING	-						
Industrials	5	IMPROVING	0.08%	6	IMPROVING	-0.58%	6	WEAKENING	-						
Information Technology	7	WEAKENING	-1.32%	7	WEAKENING	-0.80%	7	WEAKENING	-						
Materials	9	LAGGING	-0.47%	9	LAGGING	1.12%	5	IMPROVING	-						
Telecom	10	LAGGING	-5.77%	10	LAGGING	0.86%	10	LAGGING	-						
Utilities	2	LEADING	3.66%	4	LEADING	5.45%	1	LEADING	-						

	2014			2015											
	Dec	Dec	Dec	Jan	Jan	Jan	Feb	Feb	Feb	Mar	Mar	Mar	Apr	Apr	Apr
European Sectors	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf
Consumer Discretionary	1	LEADING	2.20%	1	LEADING	2.45%	2	LEADING	-	1	LEADING	-	1	LEADING	-
Consumer Staples	3	LEADING	0.21%	3	LEADING	5.31%	3	LEADING	-						
Energy	10	LAGGING	-0.44%	10	LAGGING	-5.01%	8	LAGGING	-						
Financials	5	WEAKENING	-0.93%	6	IMPROVING	-3.66%	9	LAGGING	-						
Health Care	7	WEAKENING	-1.78%	7	WEAKENING	2.85%	7	WEAKENING	-						
Industrials	6	IMPROVING	1.36%	5	IMPROVING	-0.12%	6	IMPROVING	-						
Information Technology	2	LEADING	4.79%	2	LEADING	-2.25%	1	LEADING	-						
Materials	9	LAGGING	0.55%	9	LAGGING	-1.04%	5	IMPROVING	-						
Telecom	4	LEADING	-1.47%	4	LEADING	2.36%	4	LEADING	-						
Utilities	8	WEAKENING	-0.77%	8	WEAKENING	-2.40%	10	LAGGING	-						

	2014			2015											
	Dec	Dec	Dec	Jan	Jan	Jan	Feb	Feb	Feb	Mar	Mar	Mar	Apr	Apr	Apr
Japanese Sectors	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf
Consumer Discretionary	1	LEADING	1.03%	1	LEADING	0.18%	3	LEADING	-	1	LEADING	-	1	LEADING	-
Consumer Staples	5	WEAKENING	-0.58%	9	LAGGING	5.20%	5	WEAKENING	-						
Energy	8	LAGGING	7.32%	6	LAGGING	-4.26%	7	LAGGING	-						
Financials	4	IMPROVING	-0.86%	4	IMPROVING	-5.16%	10	LAGGING	-						
Health Care	7	WEAKENING	1.09%	10	LAGGING	9.97%	2	LEADING	-						
Industrials	10	LAGGING	0.16%	7	LAGGING	-0.84%	9	LAGGING	-						
Information Technology	6	WEAKENING	-1.13%	5	WEAKENING	-1.55%	6	WEAKENING	-						
Materials	2	LEADING	2.50%	2	LEADING	0.00%	4	LEADING	-						
Telecom	9	LAGGING	1.70%	8	LAGGING	4.44%	8	LAGGING	-						
Utilities	3	LEADING	0.00%	3	LEADING	0.00%	1	LEADING	-						