

INVESTMENT MANAGEMENT COMMITTEE



March 2015

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

(Mr. Barth, Committee Chair; Mr. Colonnetta; 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 Colonnetta 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. Colonnetta. 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. Colonnetta, 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. Colonnetta 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. Colonnetta 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 machinehuman 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.

	GEMENT COMMITTEE OF THE BOARD OF TRUSTEES OF TEXAS ON THE 26 th 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

- \$23 billion managed actively (18% of TRS Portfolio)
- Experienced investment and trading teams
- Well developed investment processes with effective risk management
- Annual cost savings of approximately \$100 million

Active Portfolios							
			ALI	PHA		Tracking	Information
Global Best Ideas (GBI)	AUM (\$M)	<u>1 Yr</u>	3 Yrs	5 Yrs	ITD	Error	<u>Ratio</u>
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	
<u>Characteristics</u>	Data	<u>Factor</u>	% 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

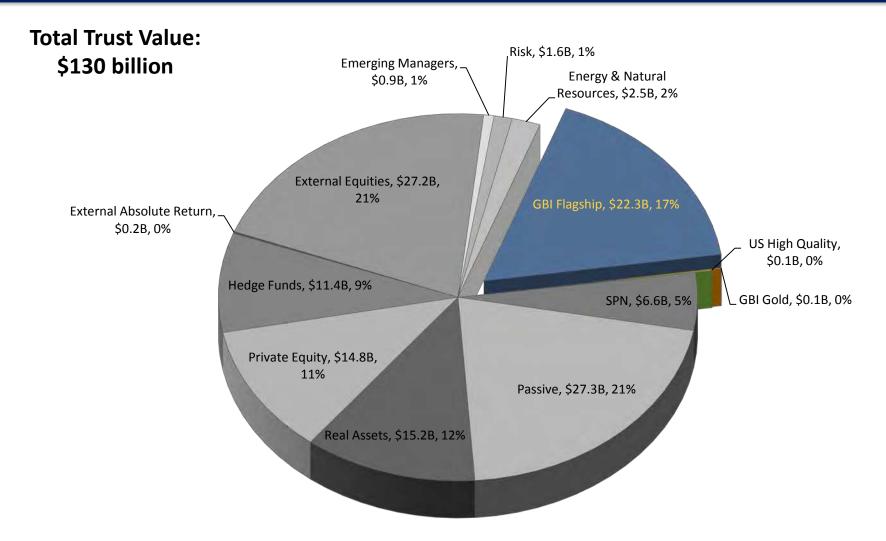
GBI Flagship Key Policies

Benchmark: MSCI All	-Country World	Target Alpha: 50 basis points
Regions E	M Weight	
United States	52%	Risk Ranges
Europe	22%	Tracking Error: 0 to 200 basis points
Asia Ex Japan	8%	Regional Allocation: -3% to +3%
Japan	7%	Sector Allocation: -3% to +3%
Latin America & EMEA	4%	
Other	<u>6%</u>	
	100%	



Internal Public Markets

IMD as of December 31, 2014





Internal Public Markets

Organizational Chart





14 Average Years of Experience

22 MBAs/Other Graduate Degrees

Global Regional Returns (US Dollar)

Annual				Annu	alized		
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	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%



Source: MSCI

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

Annu	alized
3 Year	5 Year
Health Care	Health Care
24%	16%
Discretionary 20%	Discretionary 16%
Technology	Technology
19%	12%
Financials	Staples
18%	12%
Industrials	Industrials
15%	11%
MSCI AC World	MSCI AC World
14%	9%
Staples	Telecom
13%	8%
Telecom	Financials
9%	7%
Utilities	Utilities
9%	4%
Materials	Energy
1%	2%
Energy	Materials
0%	-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
20115	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
20094	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
20126	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.

⁶ Inception: October 2012

¹ Inception: December 2007

² Tracking Error: annualized standard deviation of monthly excess returns

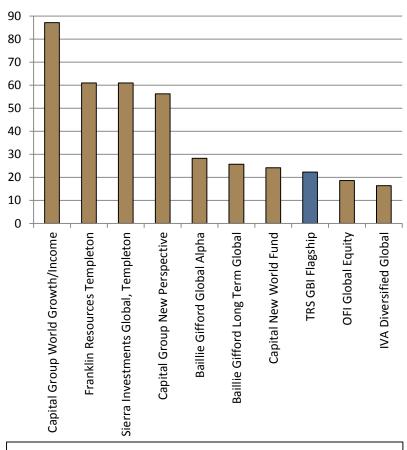
³ Information Ratio: annualized excess returns/tracking error

⁴Inception: June 2009

⁵ Inception: July 2011

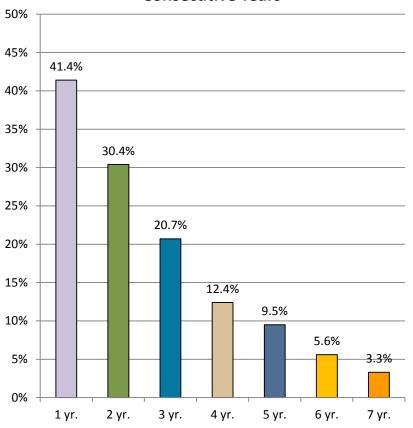
GBI Flagship Competitive Landscape

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.

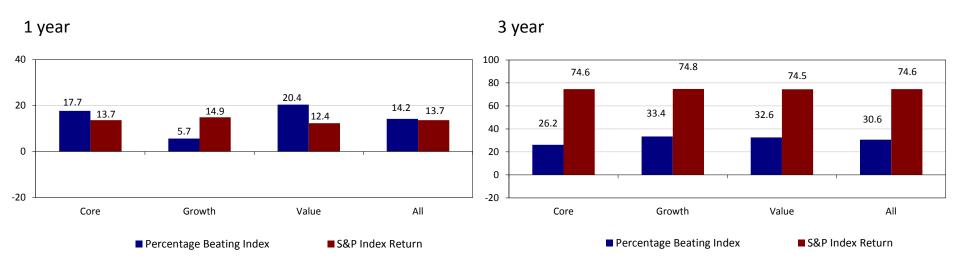
GBI Regional Performance

GBI	Flagship
GBI	US
GBI	EAFE
GBI	EM

Returns (%)		Alpha	(bps)		nation tio	Peer Ranking Information Ratio ¹		
1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	
4.5	14.5	27	41	.27	.57	Q2	Q2	
11.9	19.7	-157	-70	-1.63	89	Q4	Q4	
-3.8	11.3	56	86	.25	.56	Q2	Q2	
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

US Active Manager Performance in 2014



- 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



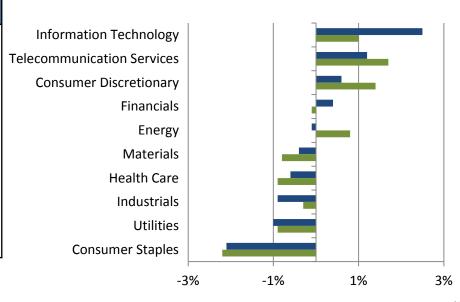
GBI Flagship

Positioning as of December 31, 2014

	GBI		Over/Under	
Regions	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%

	■ GBI 2014	■ GBI 2013		
Asia Ex Japan				
Japan				
Europe			-	
United States				
EMEA & Lat Am				
Canada	_	-		
Australia/New Zealand	_			
-3	% -	1%	1%	3%

	G	BI	Over/Under		
Sectors	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

			GBI Flagship			MSCI ACWI		
	Portfolio Characteristics		2013	3/9/20091	2014	2013	3/9/2009 ¹	
	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	
aluation Metrics	Price/Earnings – Forward	14.8x	14.6x	9.4x	15.8x	15.3x	9.5x	
MELLICS	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	Estimated 3-5 Year EPS Growth	12.1%	12.5%	11.3%	11.1%	11.7%	10.6%	
Metrics	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	



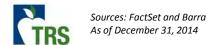
¹ Market bottom on March 9, 2009.

GBI Flagship

Performance Attribution and Risk

GBI Relative Performance and Risk

										Annua	ılized
	2014	2013	2012	2011	2010	2009	2008	2007	Cumulative	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%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%



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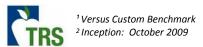
GBI Gold

Performance as of December 31, 2014

GBI GOLD

Year	AUM (\$ in millions)	Investment Return (%)	Aipila	
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
 - o 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

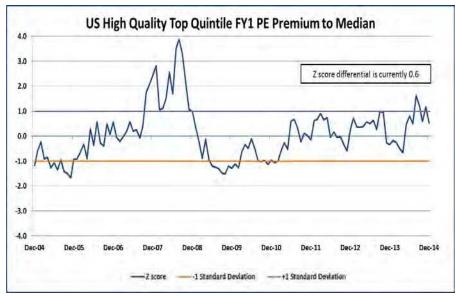
Performance as of December 31, 2014

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

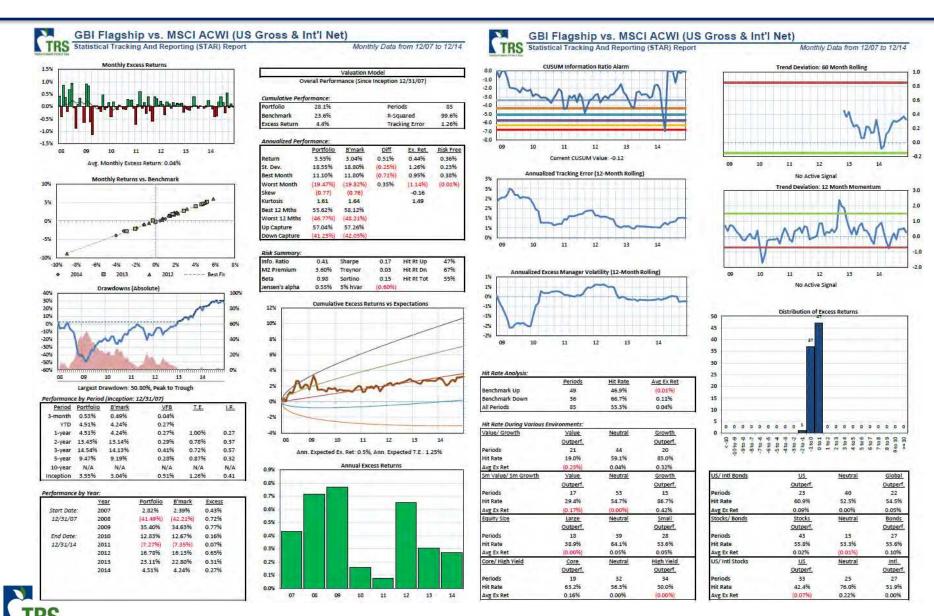
- Despite a challenging year for active funds, GBI continued to outperform in 2014
- GBI has outperformed seven years in a row
 - Only 3% of global equity funds have accomplished this
- Since inception, GBI has produced an annualized alpha of 52 basis points versus the 50 basis point target



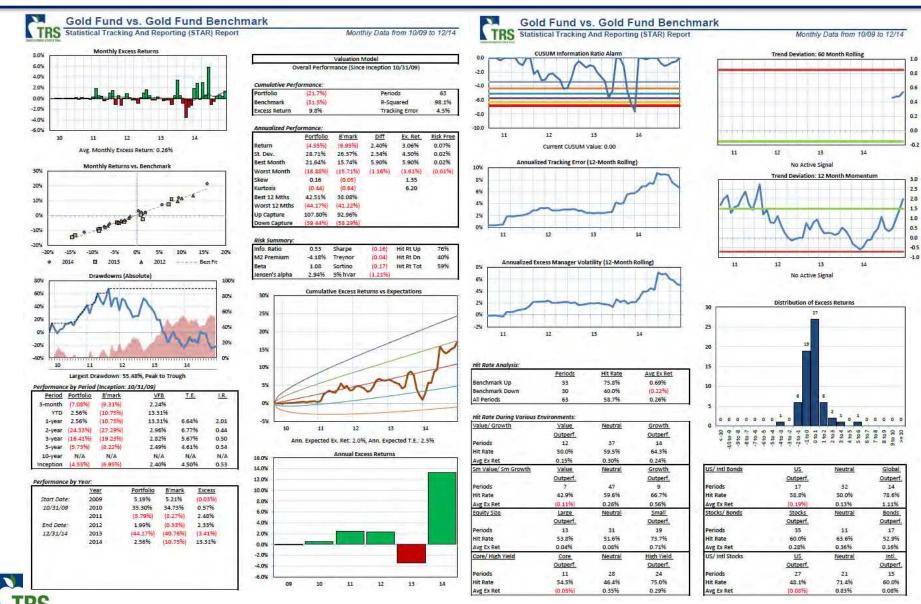
APPENDIX



GBI Flagship STAR Report



GBI Gold Fund STAR Report





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



- 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



- Passive Management
 - o 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



- 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



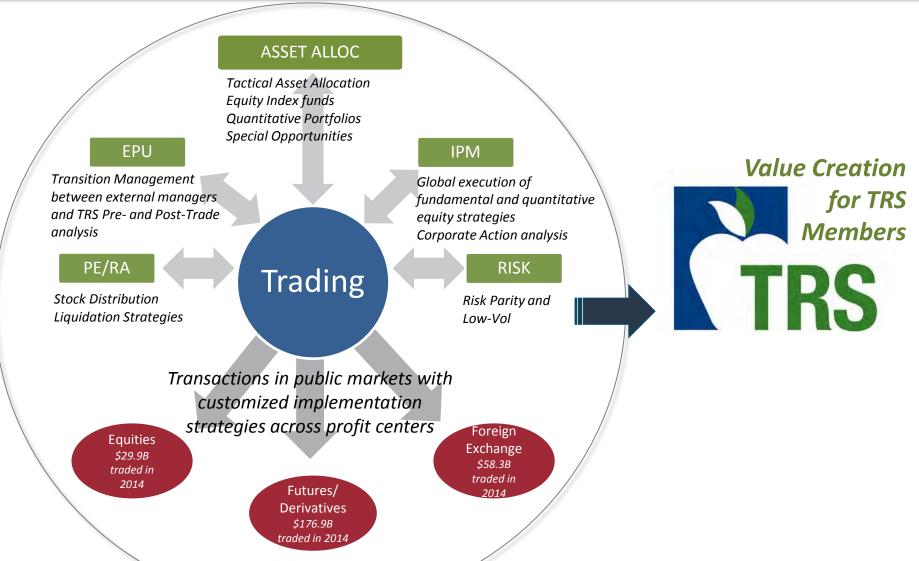
Pat Barker Senior Analyst Trading Analyst 26 years TRS 38 years experience



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

Who We Serve

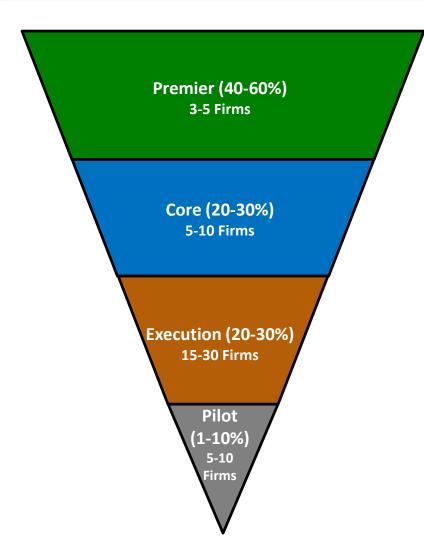
Cross-Divisional Collaboration





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

Procedures for New Firms

- Broker qualifications questionnaire
- Minimum standard requirements

Evaluation Period

- 6 to 18 month process
- Identify valued services
- Transaction cost analysis review
- Recommendations
- Category fit

Annual Review

- Adds/Deletions
- Promotions/Demotions
- Qualitative review
- On-Site visit

Certification Process

• Senior management review

If acceptable, then ...
Phase 2 - Broker added to Pilot Program

Pilot Program

 Pilot brokers evaluated quarterly using same criteria as all TRS brokers

Quarterly Review Process

- Trader vote
- Transaction cost analysis
- Guidelines established
- Quarterly report card to each broker

Two Year Process

 Pilot brokers have up to 2 year evaluation process to qualify for advancement to execution category

Completion of Pilot Program

- Advance to execution /core category or remove from broker list
- Broker has opportunity to advance based on performance after 1 year



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?
 - o 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
 - o 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

Market Value	QTD	1-Year
\$678.4	6.01	XXX
	5.13	XXX
	0.88	XXX
\$1 205 <i>/</i> I	(3.21)	(3.86)
Ş1,333. 4	(3.69)	(4.32)
	0.48	0.46
\$1,021,9	(3.92)	(1.47)
\$1,UZ1.0	(4.50)	(2.19)
	0.58	0.72
	\$678.4 \$1,395.4 \$1,021.8	\$678.4 6.01 5.13 0.88 \$1,395.4 (3.21) (3.69) 0.48 \$1,021.8 (3.92) (4.50)



C

2015 Priority

START/Tabb Analytics

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

- Principal-Agent problem
 - o 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
 - O Where do stocks trade?
 - O How do exchanges and dark pools compete for market share?
 - O How does this contribute to the principal-agent problem?
- High Frequency Trading
 - O What's the difference between good and bad HFT?
 - O How does HFT use fragmented liquidity to make profits?
 - O How does HFT contribute to the principal-agent problem?



10

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 predetermined 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



11

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
 - o 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 I	Period						
Region	Product	Frequency	Month	Ticker	Symbol	Туре	Due By	Start	End						
USA	Russell 2000 Mini Quarterly Septembe		September	RTAU4	RTAU4Z4	Index	9/5/2014	9/8/2014	9/18/2014						
	Recommended Strategy														
	Estimated Probability of Trading Period Containing the Estimated Probability of Trading Period Containing the														
Firm		HIGH of the Roll			LOW of the Roll		Estimate	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

2014 Spread Adjusted Re	oll Monitor Performance									
Totals										
\$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&I	.: Actual		2014 P&	L: Actual	
Ticker KMI/WS	12-31-1	3 Closing Price \$4.06	Ticker KMI/WS	12-31-1	4 Closing Price \$4.26
Initial Investment Shares Sold Additional Shares Bought Current Position Net Cash Flow + Current Value of Shares = Gain % Return	Shares 10,000,000 (5,108,624) 308,624 5,200,000 5,200,000	Cash Flow -\$25,954,843 \$27,003,141 -\$1,389,795 -\$341,497 -\$341,497 \$21,112,000 \$20,770,503 80.03%	Initial Investment Shares Sold Additional Shares Bought Current Position Net Cash Flow + Current Value of Shares = Gain % Return	Shares 10,000,000 (6,608,624) 2,608,624 6,000,000	Cash Flow -\$25,954,843 \$33,676,498 -\$6,187,795 \$1,533,860 \$1,533,860 \$25,560,000 \$27,093,860 104.39%
Resulting Basis/Share % of Original Investment	5,200,000	\$0.07 1.32%	Resulting Basis/Share % of Original Investment	6,000,000	-\$0.26 -5.91%
2014 P&L: If	_				
Ticker KMI/WS	12-31-1 Shares	4 Closing Price \$4.26 Cash Flow	2014 Value Added	From Positio	oning in
Initial Investment Shares Sold Additional Shares Bought Current Position	10,000,000 (5,108,624) 308,624 5,200,000	-\$25,954,843 \$27,003,141 -\$1,389,795 -\$341,497	KMI W 2014 Year End P&L: Actu	arrants	\$6,323,357
Net Cash Flow + Current Value of Shares	5,200,000	-\$341,497 \$22,152,000	- 2014 Year End P&L: If No		\$1,040,000
= Gain % Return	L	\$21,810,503 84.03%	2014 Added Value From F	ositioning	\$5,283,357
Resulting Basis/Share % of Original Investment	5,200,000	\$0.07 1.32%			



Futures Transaction Cost Analysis

		F	t Td	_						Performan	ice By Region			
		Futures P	ost iraa	e			Region	Notional Value (USD)	Benchmark (bps)	vs Arrival (bps)	vs Open (bps)	vs Close (bps)	vs VWAP (bps)	vsT-1 (bps)
		ICD Decemb	2014 Della				Africa	\$87,017,980	4.11	(56.88)	(56.88)	(5.77)	4.11	(40.64)
		ISP Decemb	er 2014 Rolls				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
		Performani	ce Summary				North America	\$1,285,721,567	(3.68)	(2.56)	(6.69)	3.18	(3.68)	(8.62)
		, c.joiiiiaii	oc ourminary				South America	\$67,735,826	65.08	38.88	38.88	144.90	65.08	(21.47)
	Ви	ıys	Se	ells	То	tal	Emerging	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Total Orders	1	2	1	3	2	5	Developed	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Total Contracts	18,	753	12.	460	31,;	213	Region	Notional Value (USD)	Benchmark (USD)	vs Arrival (USD)	vs Open (USD)	vs Close (USD)	vs VWAP (UDS)	vs T-1 (USD)
USD Notional Execution Value		583,553	-	853,010		436,563	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)
Commission/Contract	-	.78	\$3		\$4.		Australia	\$19,914,659	\$7,731	(\$7,927)	(\$7,927)	\$20,506	\$7,731	\$9,844
Total Commission		,688	•	,052		1,740	Europe North America	\$630,450,820	\$561,265	(\$169,283)	(\$169,283)	\$72,997	\$561,265	\$421,327
Commission (bps)	0.	71	0.	34	0.5	52		\$1,285,721,567 \$67,735,826	(\$473,745) \$440,824	(\$328,811) \$263,369	(\$859,553) \$263,369	\$409,140 \$981,476	(\$473,745) \$440,824	(\$1,107,997) (\$145,399)
Implementation Shortfall (USD)	(\$404	4,773)	(\$1,09	1,158)	(\$1,49	95,931)	South America Emerging	\$67,735,826	\$440,824	\$263,369	\$263,369	\$981,476	\$440,824	(\$145,399) \$0
Implementation Shortfall (bps)	(3.	.19)	(8.	73)	(5.	94)	Developed	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Performance Measures	Basis Points	USD	Basis Points	USD	Basis Points	USD	Developed	30	30	30	- 70	Ģ0	30	30
Performance vs. Benchmark	(0.92)	(\$116,121)	5.70	\$712,862	2.37	\$596,740				Performan	ice By Broker			
Performance vs. Arrival	(2.48)	(\$315,085)	(8.39)	(\$1,049,106)	(5.42)	(\$1,364,191)	Broker ID	Notional Value (USD)	Benchmark (bps)	vs Arrival (bps)	vs Open (bps)	vs Close (bps)	vs VWAP (bps)	vsT-1 (bps)
Performance vs. VWAP	(0.92)	(\$116,121)	5.70	\$712,862	2.37	\$596,740	BARFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Performance vs. T-1	(14.46)	(\$1,834,105)	(4.00)	(\$499,746)	(9.27)	(\$2,333,851)	CSFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
Performance vs. Open	(6.67)	(\$845,827)	(8.39)	(\$1,049,106)	(7.52)	(\$1,894,933)	сѕотс	\$106,970,453	50.36	24.62	24.62	99.33	50.36	(23.24)
Performance vs. Close	9.28	\$1,176,981	1.28	\$160.293		\$1,337,274	DBFUT	\$408,275,744	(1.60)	(15.54)	(15.54)	(3.85)	(1.60)	(25.59)
Performance vs. close	9.28	\$1,176,981	1.20	\$160,293	5.31	\$1,557,274	GSFUT	\$989,087,574	(0.84)	1.99	(3.37)	6.45	(0.84)	2.47
	***		uco o c	2 / /			GSOTC	\$0	0.00	0.00	0.00	0.00	0.00	0.00
	Most Importa	nt Trades Impactin	g USD Performan	e vs Benchmark			JPFUT	\$857,101,380	3.97	(13.49)	(13.49)	(2.63)	3.97	(11.17)
Security Identification	Trade Date	Notional Value (USD)	Notional % of Total	Performance - (bps)	Performance - (USD)	% Perf. Explained	JPOTC	\$7,363,929	(9.59)	(5.18)	(5.18)	21.42	(9.59)	(29.47)
BZV4 Index B ISPGEM CSOTC	August 29, 2014	\$67,735,826	2.69%	64.66	\$440,824	16.24%	MLBAFUT	\$149,637,483	(8.49)	(2.00)	(2.00)	0.24	(8.49)	(20.38)
CFU4 Index S ISPDEV JPFUT	August 29, 2014	\$100,513,385	3.99%	37.15	\$372,074	13.70%	MSFUT	\$0	0.00	0.00	0.00	0.00	0.00	0.00
RTAU4 Index B ISPSMC JPFUT	August 29, 2014	\$146,996,510	5.84%	(17.98)	(\$263,817)	9.72%	Broker ID BARFUT	Notional Value (USD) \$0	Benchmark (USD) \$0	vs Arrival (USD) \$0	vs Open (USD) \$0	vs Close (USD) \$0	vs VWAP (UDS) \$0	vs T-1 (USD) \$0
IBU4 Index S ISPDEV JPFUT	August 29, 2014	\$84,837,405	3.37%	29.38	\$248,502	9.15%	CSFUT	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Z U4 Index B ISPDEV JPFUT	August 29, 2014	\$104,750,846	4.16%	(22.16)	(\$231,622)	8.53%	сѕотс	\$106,970,453	\$538,730	\$263,369	\$263,369	\$1,062,570	\$538,730	(\$248,610)
WNZ4 Comdty S ISPUST GSFUT	August 29, 2014	\$120,538,160	4.79%	(16.43)	(\$198,397)	7.31%	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
G Z4 Comdty S ISPOARNC JPFUT	August 29, 2014	\$158,959,358	6.31%	10.26	\$162,910	6.00%	GSOTC	\$0	\$0	\$0	\$0	\$0	\$0	\$0
EOU4 Index S ISPDEV JPFUT	August 29, 2014	\$63,387,246	2.52%	22.06	\$139,510	5.14%	JPFUT	\$857,101,380	\$340,259	(\$1,156,138)	(\$1,156,138)	(\$225,585)	\$340,259	(\$957,718)
PTU4 Index S ISPDEV MLBAFUT	August 29, 2014	\$37,808,638	1.50%	(33.90)	(\$128,608)	4.74%	ЈРОТС	\$7,363,929	(\$7,066)	(\$3,815)	(\$3,815)	\$15,773	(\$7,066)	(\$21,700)
CNZ4 Comdty B ISPOARNC GSFUT	August 29, 2014	\$606,586,902	24.09%	1.92	\$116,288	4.28%	MLBAFUT	\$149,637,483	(\$127,072)	(\$29,990)	(\$29,990)	\$3,604	(\$127,072)	(\$304,971)
Totals		\$1,492,114,278	59.25%	4.41	\$657,665	84.81%	MSFUT	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<u> </u>													



Futures Transaction Cost Analysis

										Tr	ade Lis	t									
	Identifi	cation				Trad	e Informa	tion			Pei	rformar	nce in bp	os				Perform	ance 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	В	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
JBU4 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	В	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	В	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	В	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	В	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	В	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	В	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	В	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	В	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	В	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	В	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
BZV4 Index	ISPGEM	CSOTC	08/29/2014	VWAP	В	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





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%	0	LEADING	-0.03%	0	LEADING	-	0	LEADING	-	1	LEADING	-
Consumer Staples	₿	LEADING	-0.95%	•	LEADING	1.84%	₿	LEADING	-			-			-
Energy	8	LAGGING	0.76%	8	LAGGING	-1.78%	9	LAGGING	-			-			-
Financials	0	LEADING	2.04%	2	LEADING	-3.89%	8	WEAKENING	-			-			-
Health Care	4	LEADING	-1.03%	•	LEADING	4.28%	4	LEADING	-			-			-
Industrials	6	IMPROVING	0.08%	6	IMPROVING	-0.58%	6	WEAKENING	-			-			-
Information Technology	0	WEAKENING	-1.32%	0	WEAKENING	-0.80%	Ø	WEAKENING	-			-			-
Materials	9	LAGGING	-0.47%	9	LAGGING	1.12%	6	IMPROVING	-			-			-
Telecom	0	LAGGING	-5.77%	•	LAGGING	0.86%	0	LAGGING	-			-			-
Utiliities	2	LEADING	3.66%	4	LEADING	5.45%	0	LEADING	-			-			-

		2014							2015						
	Dec	Dec	Dec	Jan	Jan	Jan	Feb	Feb	Feb	Mar	Mar	Mar	Apr	Apr	Apr
L						Relative									
European Sectors	Rank	Outlook	Relative Perf	Rank	Outlook	Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf
Consumer Discretionary	0	LEADING	2.20%	1	LEADING	2.45%	0	LEADING	-	0	LEADING	-	0	LEADING	-
Consumer Staples	€	LEADING	0.21%	₿	LEADING	5.31%	₿	LEADING	-			-			-
Energy	0	LAGGING	-0.44%	0	LAGGING	-5.01%	8	LAGGING	1			-			-
Financials	6	WEAKENING	-0.93%	6	IMPROVING	-3.66%	9	LAGGING	-			-			-
Health Care	0	WEAKENING	-1.78%	0	WEAKENING	2.85%	Ø	WEAKENING	-			-			-
Industrials	6	IMPROVING	1.36%	6	IMPROVING	-0.12%	6	IMPROVING	-			-			-
Information Technology	2	LEADING	4.79%	2	LEADING	-2.25%	0	LEADING	-			-			-
Materials	9	LAGGING	0.55%	9	LAGGING	-1.04%	6	IMPROVING	-			-			-
Telecom	4	LEADING	-1.47%	4	LEADING	2.36%	4	LEADING	-			-			-
Utiliities	8	WEAKENING	-0.77%	8	WEAKENING	-2.40%	0	LAGGING	-			-			-

		2014							2015						
	Dec	Dec	Dec	Jan	Jan	Jan	Feb	Feb	Feb	Mar	Mar	Mar	Apr	Apr	Apr
						Relative									
Japanese Sectors	Rank	Outlook	Relative Perf	Rank	Outlook	Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf	Rank	Outlook	Relative Perf
Consumer Discretionary	0	LEADING	1.03%	0	LEADING	0.18%	₿	LEADING	-	0	LEADING	-	1	LEADING	-
Consumer Staples	6	WEAKENING	-0.58%	9	LAGGING	5.20%	6	WEAKENING	-			-			-
Energy	8	LAGGING	7.32%	6	LAGGING	-4.26%	0	LAGGING	-			-			-
Financials	4	IMPROVING	-0.86%	4	IMPROVING	-5.16%	0	LAGGING	-			-			-
Health Care	•	WEAKENING	1.09%	0	LAGGING	9.97%	0	LEADING	-			-			-
Industrials	0	LAGGING	0.16%	Ø	LAGGING	-0.84%	9	LAGGING	-			-			-
Information Technology	6	WEAKENING	-1.13%	6	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	-			-			-
Utiliities	8	LEADING	0.00%	₿	LEADING	0.00%	0	LEADING	-			-			-

