



Joint Retirement Plan Committee

Howard County Retirement Plan

May 31, 2018

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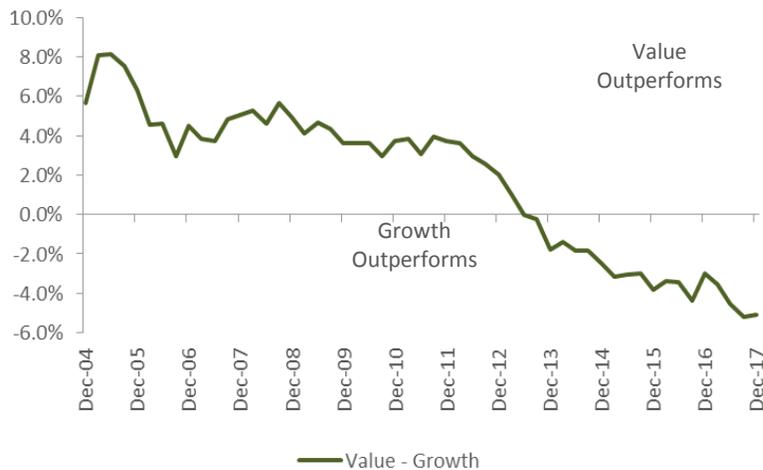
1. Emerging Markets Search
2. Real Assets Fund of Funds Search

Emerging Markets Search

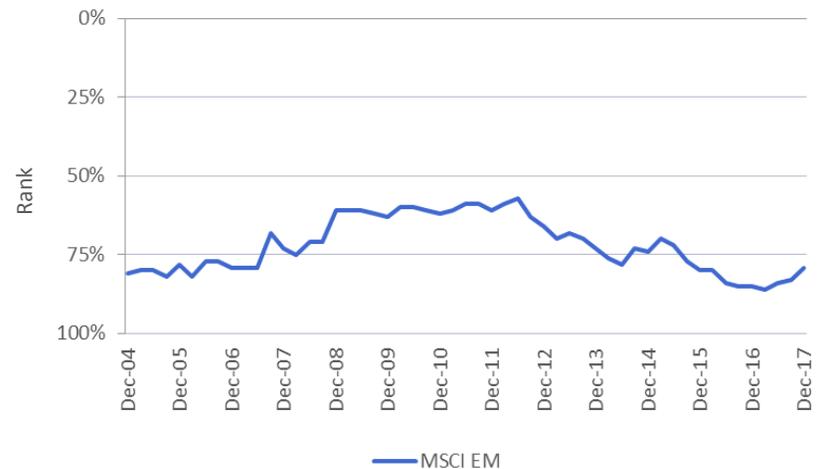
Emerging Markets Historical Performance—Active Management and Style

- Historically, value stocks have tended to outperform growth stocks since Index inception in January 2000.
 - However, this has not been the case recently and having a static allocation to value became a strong headwind.
- In addition to style performance, active management has consistently outperformed the MSCI EM-ND Index on all rolling 5-year periods.
 - The Index has never outperformed the median manager and has ranked in the bottom quartile of returns nearly 60% of the time.
- Given the active and style performance in emerging markets, an ideal structure would incorporate the following:
 - active management with a value bias
 - allocation to a core and/or growth mandate to offset those periods of value underperformance.

MSCI EM Value vs. MSCI EM Growth Performance
Difference – Rolling 5 Year Periods



MSCI EM-ND Index Performance vs. Active EM
Universe – Rolling 5 Year Periods



Universe returns are gross of fees.

Portfolio Construction

Summit recommends the Howard County Retirement Plans adopt a two manager portfolio with the following characteristics:

- Broad value exposure (Existing DFA) coupled with a more active, quality focused, risk mitigating manager
 - Pair the existing DFA allocation alongside a quality-growth mandate.
- New Manager Style Preferences
 - Quality/Growth focused stock selection.
- Number of Managers
 - Complement DFA with one additional manager resulting in a diversified core-like portfolio with value and quality tilts.
 - The emphasis is on simplicity and the belief that DFA and a quality biased manager result in the desired tilts.
 - Look to size the complementary manager from 30-50% of the total EM allocation.
- Active/Passive
 - Our research in emerging markets shows that value can be added through active management.
 - We prefer all components of the mandate be active.

Screening Process

The following process was used to assess the universe of investable managers:

Quantitative and Qualitative Screening of Universe



4 Strategies Passed All Of The Screens:
Baillie Gifford, GQG,
RWC, William Blair



Summit's Current Top Tier List



Added to Search:
Walter Scott (Recently Reopened)
William Blair (Recently Reopened)



Manager Overview

▪ Baillie Gifford

- Investment Thesis: Founded in the early 20th century in Edinburgh, Baillie Gifford has seen many market, economic, and credit cycles since opening its doors to investors, and continues to operate as an employee-owned shop. The firm has remained solely committed to international/global markets and its culture of developing successful stock pickers.
- Risks/Concerns: Analyst pool is utilized by multiple strategies.

▪ GQG

- Investment Thesis:
Rajiv Jain was previously CIO and co-CEO of Vontobel's asset management business where he managed EM portfolios for more than 20 years prior to his departure in early 2016. GQG utilizes the same time-tested, quality growth approach utilized at Vontobel.
- Risks/Concerns: While Jain has a track record of implementing the same investment process for more than two decades, the firm is still in its infancy. Despite this, the firm was built to be of institutional caliber from the beginning. Tracking error will be high.

▪ RWC

- Investment Thesis: This is a deep/experienced team managing an opportunistic, all-cap emerging markets strategy that blend both fundamental, stock-by-stock analysis with Top-down macro research.
- Risks/Concerns: This is a relatively high-conviction high tracking error strategy that can look meaningfully different than the benchmark.

▪ William Blair

- Investment Thesis: The strategy is focused on finding the best quality growth companies within emerging markets regardless of size. The strategy also employs a macroeconomic framework in which ensure risks are properly accounted for.
- Risks/Concerns: Analyst pool is utilized by multiple strategies.

Side-By-Side Comparison

		Emerging Market Equity				
As of 3/31/18		Baillie Gifford	GQG	RWC	William Blair	DFA
Firm	Headquarters Location	Edinburgh, Scotland	Fort Lauderdale, FL	London, England (Team - Miami, FL)	Chicago, IL	Austin, TX
	Firm Assets	\$249.1 B	\$10.7 B	\$14.2 B	\$73.5 B	\$585.5 B
	Ownership	100% Employee (43 Employees)	95% Employee 5% Pacific Current	58.3% Employee 41.7% Schroders	100% Employee (59 Employees)	70% Employee 30% former Employees
Product	Product Inception Date	October, 1994	November, 1994*	August, 2012	October, 1999	May-98
	Product Assets	\$7.7 B	\$4.6 B	\$4.2 B	\$6.0 B	\$27.9 B
	Vehicle(s) Available	SA, CF, MF	SA, CF, MF	SA, CF, MF	SA, CF, MF	SA, CF, MF
	Separate Account Minimum	\$100 M	\$100 M	\$150 M	\$20 M	\$100 M
	Commingled Fund Minimum	Closed	\$1 M	\$5 M	\$20 M	\$1 M
	Mutual Fund Minimum	\$25 M	\$1 M	\$10 M	\$5 M	\$2 M
Characteristics	Stock Selection Method	Fundamental	Fundamental	Fundamental	Fundamental	Quantitative/Passive
	Number of Securities	68	61	56	132	2417
	Portfolio Turnover	20%	65%	78%	90%	~13%
	Wtd. Avg. Market Cap	\$130.1 B	\$126.8 B	\$37.5 B	\$76.2 B	\$37.6 B
	Dividend Yield	2.3%	1.7%	1.9%	1.1%	2.8%
	P/E (trailing 12-mo)	18.4x	18.2x	21.4x	24.7x	11.1x
	P/B Ratio	2.4x	3.2x	3.2x	4.7x	1.0x

*Performance reflects blended, gross of fees composite returns while at Vontobel and GQG. Performance from 11/1994 – 12/2014 reflects the Vontobel EM strategy performance. Returns from 12/2014 - 6/2016 reflect a separate account managed by Jain where he was the sole PM while still at Vontobel. Performance since 6/2016 reflects returns for the GQG EM composite.

Statistical Summary

As of 3/31/18	Baillie Gifford	GQG*	RWC	William Blair	DFA	MSCI EM
3 Year Performance						
Annualized Return	13.52	10.92	15.85	9.46	10.43	8.81
Annualized St. Dev.	17.55	12.72	19.20	15.85	18.05	16.46
Sharpe Ratio	0.74	0.82	0.80	0.57	0.55	0.51
Tracking Error	6.14	7.73	6.85	4.75	3.76	0.00
Information Ratio	0.77	0.27	1.03	0.14	0.43	NA
Batting Average	0.56	0.58	0.58	0.47	0.56	0.00
Up Market Capture	114.06	76.83	123.16	96.84	114.21	100.00
Down Market Capture	94.56	66.43	93.73	94.43	106.40	100.00
5 Year Performance						
Annualized Return	9.70	6.60	13.54	7.56	4.77	4.99
Annualized St. Dev.	15.75	13.56	17.26	14.70	16.57	14.97
Sharpe Ratio	0.60	0.46	0.77	0.49	0.27	0.31
Tracking Error	5.54	7.15	6.92	4.73	3.46	0.00
Information Ratio	0.85	0.23	1.24	0.54	-0.06	NA
Batting Average	0.57	0.60	0.58	0.57	0.52	0.00
Up Market Capture	111.16	93.49	125.04	102.80	110.16	100.00
Down Market Capture	89.64	87.42	85.29	91.52	108.98	100.00
7 Year Performance						
Annualized Return	5.39	7.71		6.24	1.58	2.47
Annualized St. Dev.	18.00	14.17		15.99	19.13	17.14
Sharpe Ratio	0.29	0.53		0.38	0.07	0.13
Tracking Error	5.20	7.84		4.64	3.84	0.00
Information Ratio	0.56	0.67		0.81	-0.23	NA
Batting Average	0.52	0.63		0.62	0.51	0.00
Up Market Capture	105.47	89.99		99.15	110.47	100.00
Down Market Capture	93.35	72.32		85.46	110.17	100.00
10 Year Performance						
Annualized Return	4.66	7.64		4.69	3.32	3.02
Annualized St. Dev.	23.78	18.41		22.52	25.66	22.48
Sharpe Ratio	0.18	0.40		0.19	0.12	0.12
Tracking Error	4.90	8.72		5.15	4.89	0.00
Information Ratio	0.33	0.53		0.32	0.06	NA
Batting Average	0.53	0.60		0.60	0.53	0.00
Up Market Capture	105.81	84.35		98.51	115.01	100.00
Down Market Capture	99.28	75.74		94.54	108.07	100.00

*Performance reflects blended, gross of fees composite returns while at Vontobel and GQG. Performance from 11/1994 – 12/2014 reflects the Vontobel EM strategy performance. Returns from 12/2014 - 6/2016 reflect a separate account managed by Jain where he was the sole PM while still at Vontobel. Performance since 6/2016 reflects returns for the GQG EM composite.

Performance

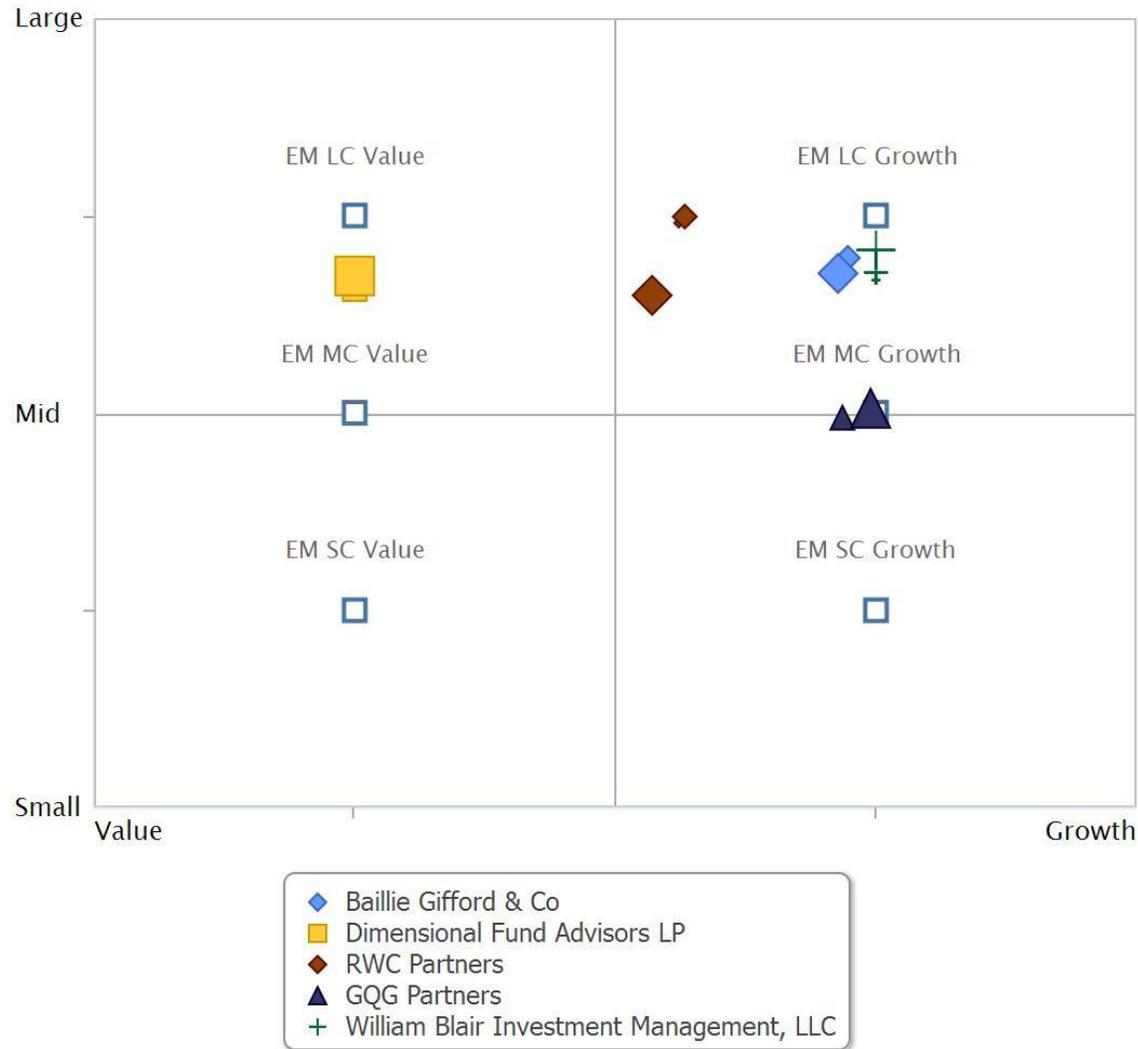
Trailing Returns As of 3/31/18	1 Year	3 Years	5 Years	7 Years	10 Years
Baillie Gifford	34.05	13.21	9.85	5.53	5.51
GQG*	28.01	10.92	6.60	7.71	7.64
RWC	31.30	15.85	13.54		
William Blair	33.74	9.46	7.56	6.24	4.69
DFA	20.32	10.43	4.77	1.58	3.32
MSCI EM	24.93	8.81	4.99	2.47	3.02

Calendar Year Returns	YTD 2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Baillie Gifford	0.68	54.38	3.64	-7.69	1.53	5.19	14.18	-19.74	19.66	100.84
GQG*	3.71	35.15	7.50	-7.72	6.13	-4.71	22.16	-1.72	31.11	55.68
RWC	0.34	46.61	20.94	-13.11	7.80	10.91				
William Blair	0.37	51.19	2.93	-14.17	5.73	3.83	22.17	-15.89	24.73	79.09
DFA	2.29	34.12	20.03	-18.41	-3.81	-2.85	19.76	-25.23	23.13	95.00
MSCI EM	1.42	37.28	11.19	-14.92	-2.19	-2.60	18.22	-18.42	18.88	78.51

*Performance reflects blended, gross of fees composite returns while at Vontobel and GQG. Performance from 11/1994 – 12/2014 reflects the Vontobel EM strategy performance. Returns from 12/2014 - 6/2016 reflect a separate account managed by Jain where he was the sole PM while still at Vontobel. Performance since 6/2016 reflects returns for the GQG EM composite.

Style Analysis, Rolling 5-Year Periods

20 Quarter Rolling Style Map - Traditional



Fees

Emerging Market Equity					
As of 3/31/18	Baillie Gifford	GQG	RWC	William Blair	DFA
Type of Fund	MF	CF (LLC)	CF (3C7)	MF	MF
CF/MF Allowable Clients	ERISA & NonERISA				
CF/MF Liquidity	Daily	Weekly	Monthly	Daily	Daily
CF/MF Entry/Exit Fees	None	None	None	None	None
CF/MF Management Fee	0.72%	0.80%	0.70%	1.19%	0.57%
CF/MF Other Fees	0.15%	0.15%	0.16%	0.00%	0.00%

Observations From Review

■ Fees

- Baillie Gifford provides the most attractive all-in fee at 87 bps.

■ Correlations

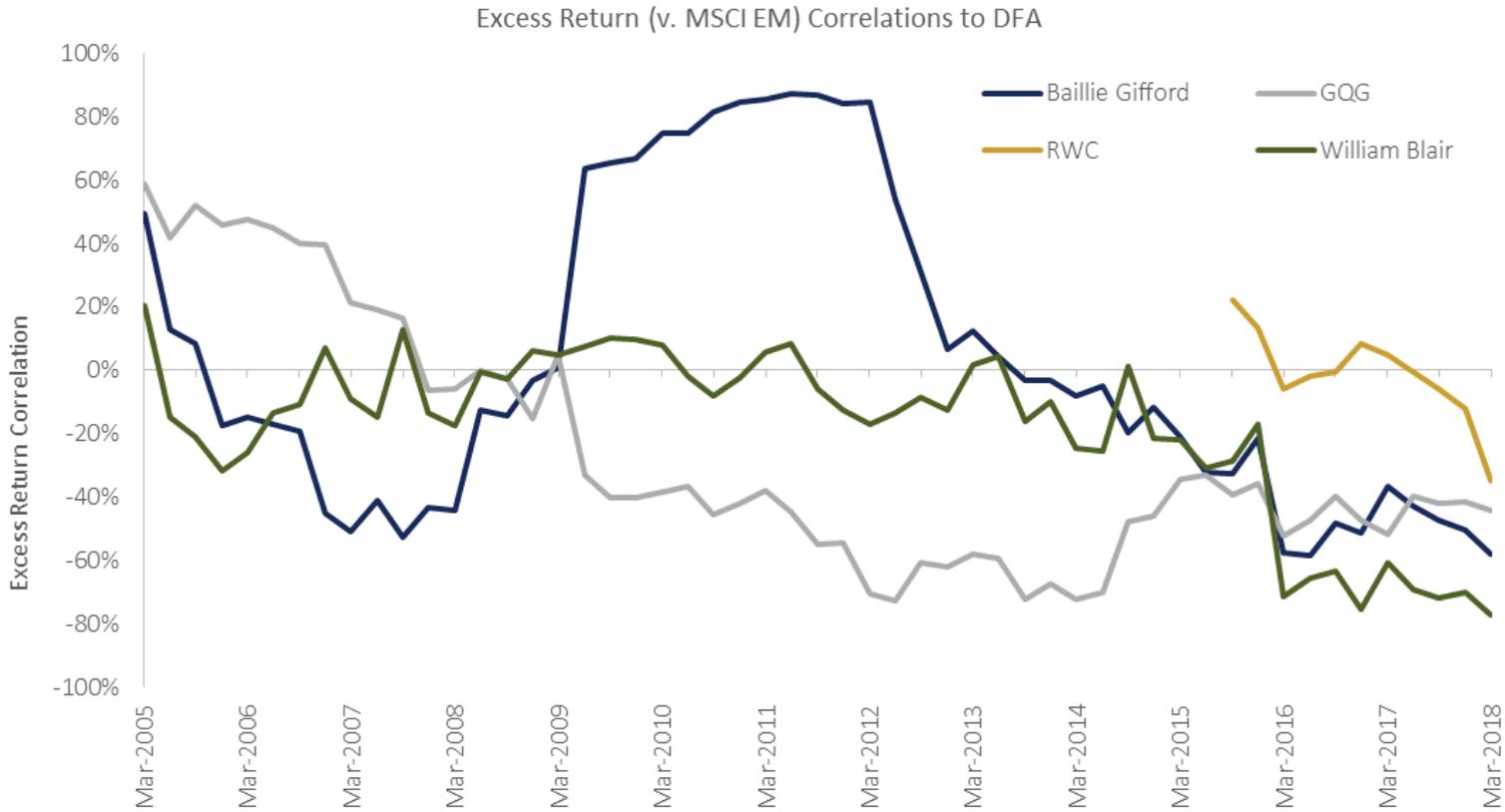
- All managers are good diversifiers to DFA EM All Cap Value strategy though William Blair and GQG have offered the most consistent correlation benefit over time.

■ Downside Protection

- GQG has offered the most consistent downside protection, historically.
- Risk (Standard Deviation)
- GQG has historically had the lowest standard deviation among the managers but that has resulted in the highest relative tracking error.
- Excess Return
- Each of the managers have provided meaningful outperformance net of fees.

Appendix

Rolling 3-Year Excess Return (v. MSCI EM) Correlation vs. DFA



Emerging Markets All Cap Value Strategy

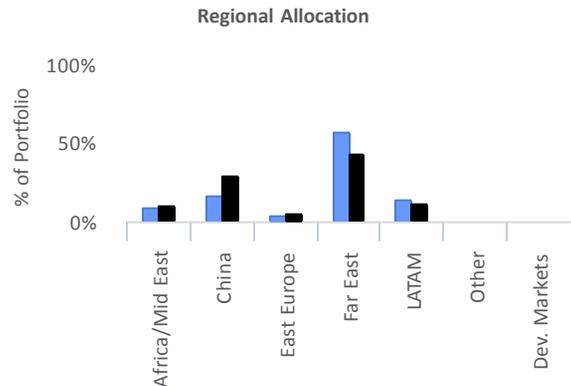
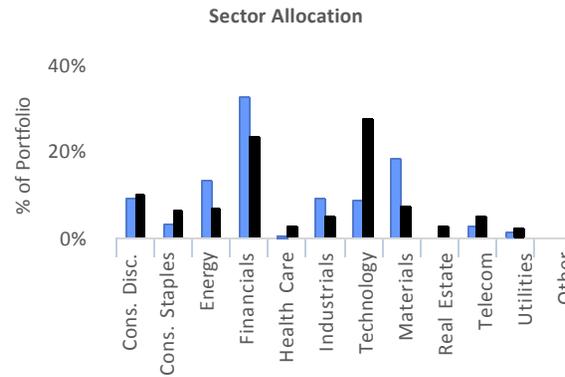
OVERVIEW

- Dimensional Fund Advisors (DFA) was formed in 1981 and remains employee controlled. Two of the firm's founders, David Booth and Rex Sinquefeld, continue to hold 51% of the total equity. The firm has grown substantially and now has a staff of over 1200. While Sinquefeld has retired, he remains a significant shareholder.
- The firm first began running portfolios with small capitalization stocks in 1986 and later expanded into international assets in the mid 1980s. The investment process was expanded to the emerging markets area in 1994 and was later introduced in this deeper value fund in 1998. Dimensional now manages an array of equity and fixed income products across a broad range of asset classes and geographic regions, all based on a single philosophy and implemented through an integrated, process-driven approach.
- The premise of the process is heavily rooted in research showing that high book-to-market (value) and smaller cap stocks have higher expected returns than larger cap, growth stocks, particularly in the emerging markets segment. Because their process is quantitative and structured in nature, there is no need for traditional fundamental research of companies. Within the last five years, Dimensional has added a profitability factor to supplement the value and size factors within all of their strategies.
- While the strategy remains overweighted to smaller cap, deeper value securities, the relative level of the factor tilt has decreased over the last several years. While the shift may limit future excess return potential, the product continues to provide cost effective, broad exposure to the emerging markets investment universe.

CHARACTERISTICS

	Product	Index*
Current # of Holdings	2371	863
Annual Turnover (LTM)	14.3%	--
Wgtd. Avg. Mkt. Cap	\$34,378	\$57,880
% Holdings In 10 Largest Stocks	18.5%	25.0%
Current P/E (12 mo Trailing)	11.4	17.6
Current P/B	1.0	1.8
Current Dividend Yield	2.4%	2.2%
# of Countries in Portfolio	19	25

*Index represents MSCI EM-ND



◆ Emerging Markets All Cap Value Strategy
● MSCI EM

FIRM

Founded	1981
City	Austin
State/Province	Texas
Total AUM (millions)	\$577,096
Total Employees	1211
Employee Owned	70%
Minority Ownership	0%

INVESTMENT TEAM

Portfolio Mgrs/Dual Role PMs	37
Portfolio Managers Avg Yrs Exp	13
Portfolio Managers Avg Yrs w/ Firm	10
Research Analysts	12
Analysts Avg Yrs Exp	12
Analysts Avg Yrs w/Firm	10
Traders	20
Traders Avg Yrs Exp	14
Traders Avg Yrs w/Firm	9

PRODUCT

Inception Date	04/30/1994
Total AUM (millions)	\$27,553
Geographic Region	Global Emg Mkts
Market Cap	All Cap
Style	Value

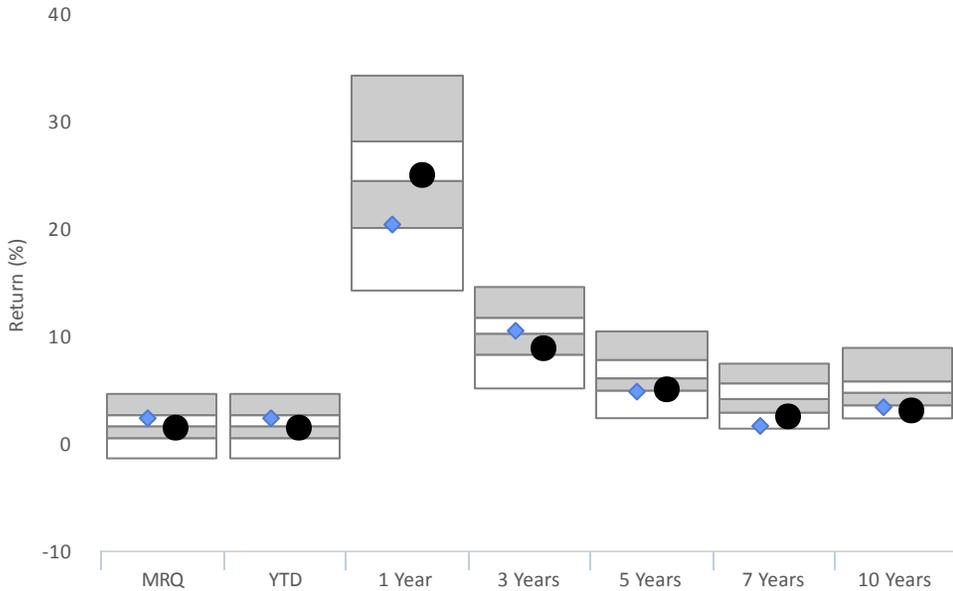
FEES & VEHICLES

SA: Min. Invest. (millions)	--
SA: Fee on \$25 million (bps)	--
CF: Min. Invest. (millions)	\$1
CF: Fee on \$25 million (bps)	72
CF Type	--
MF: Min. Invest. (millions)	\$2
MF: Fee on \$25 million (bps)	57
Ticker	DFEVX

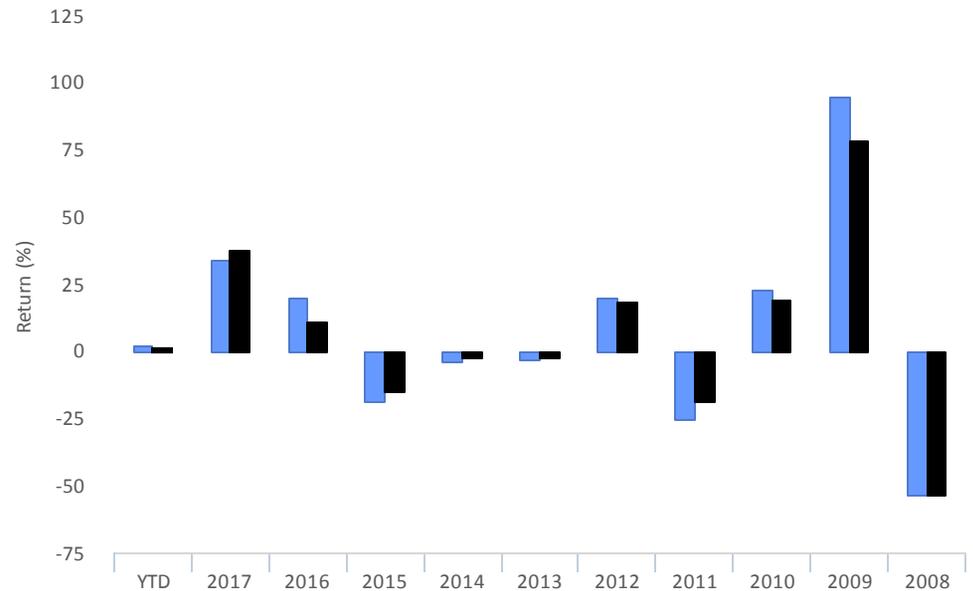
As of 12/2017

Emerging Markets All Cap Value Strategy

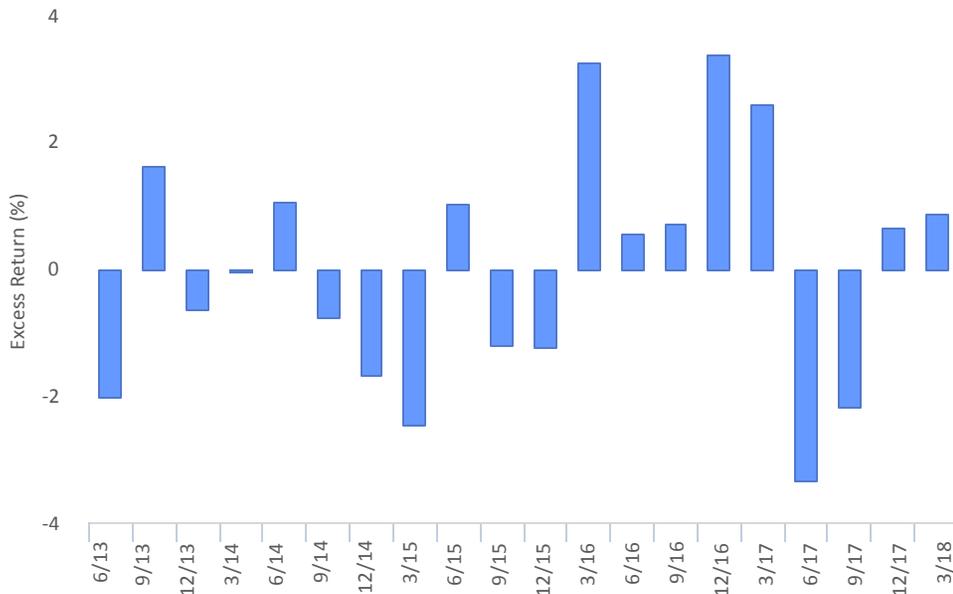
UNIVERSE RETURN RANK



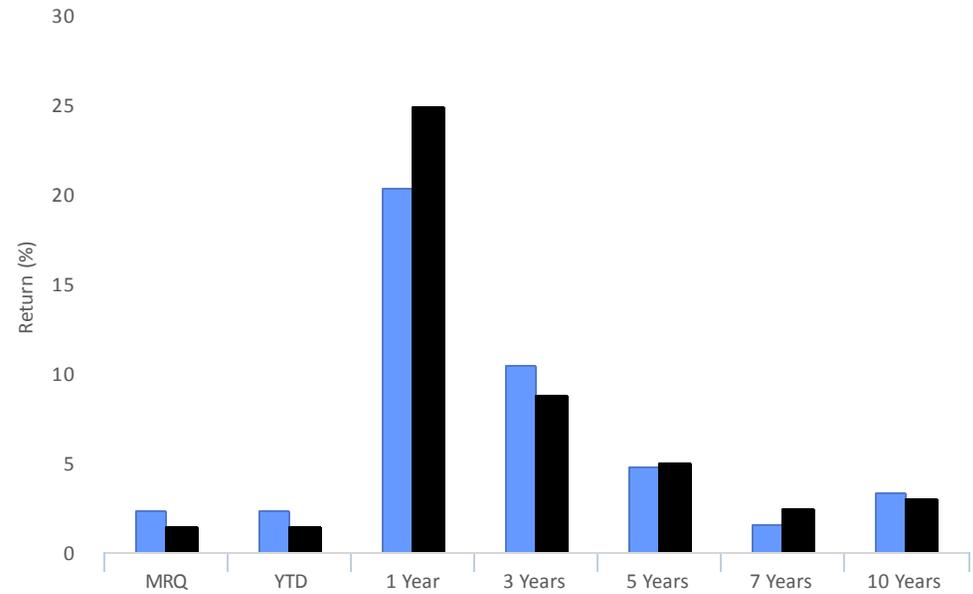
CALENDAR YEAR RETURNS



QUARTERLY EXCESS RETURN



ANNUALIZED RETURNS

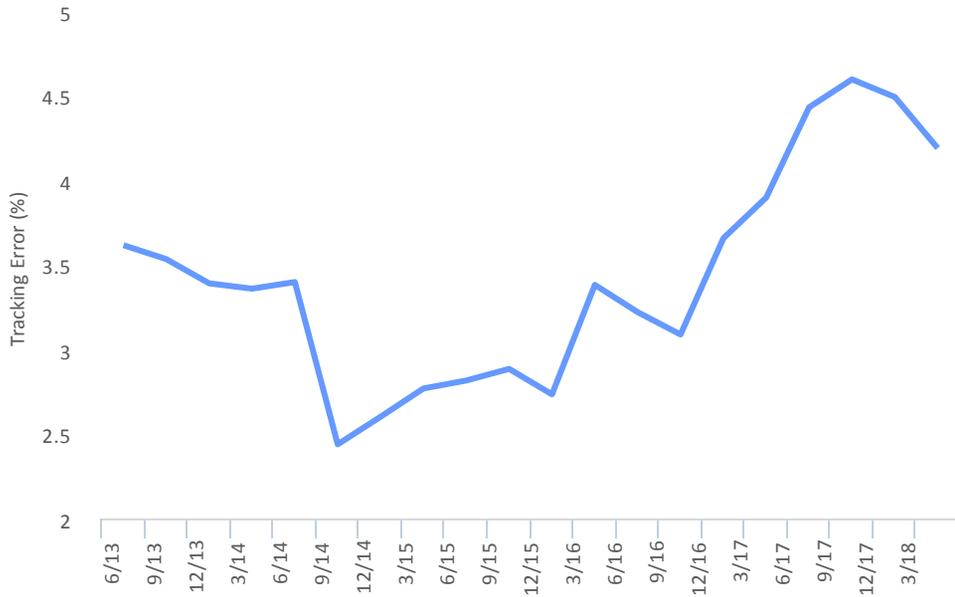


As of 3/2018

◆ Emerging Markets All Cap Value Strategy
● MSCI EM

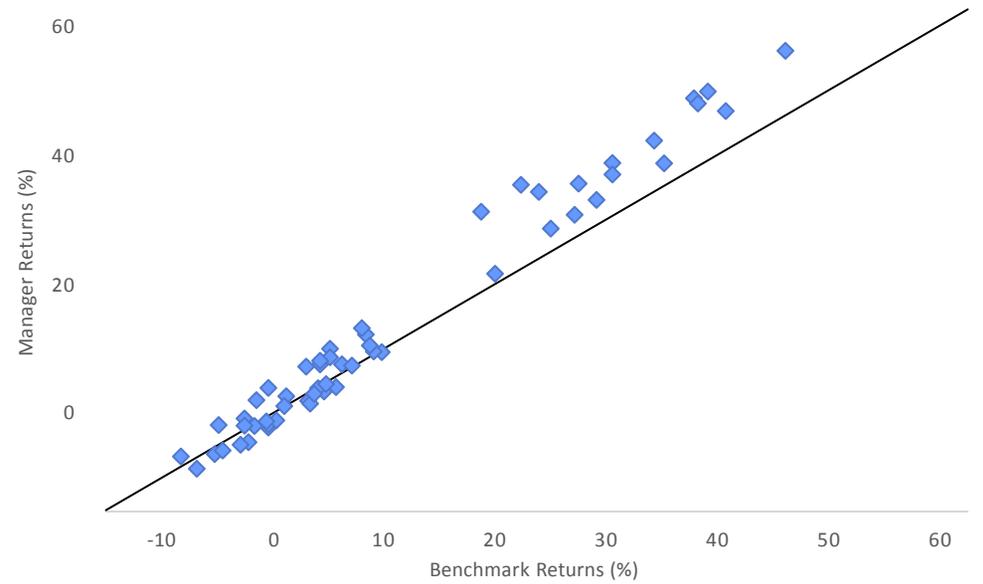
Emerging Markets All Cap Value Strategy

ROLLING 3-YEAR TRACKING ERROR

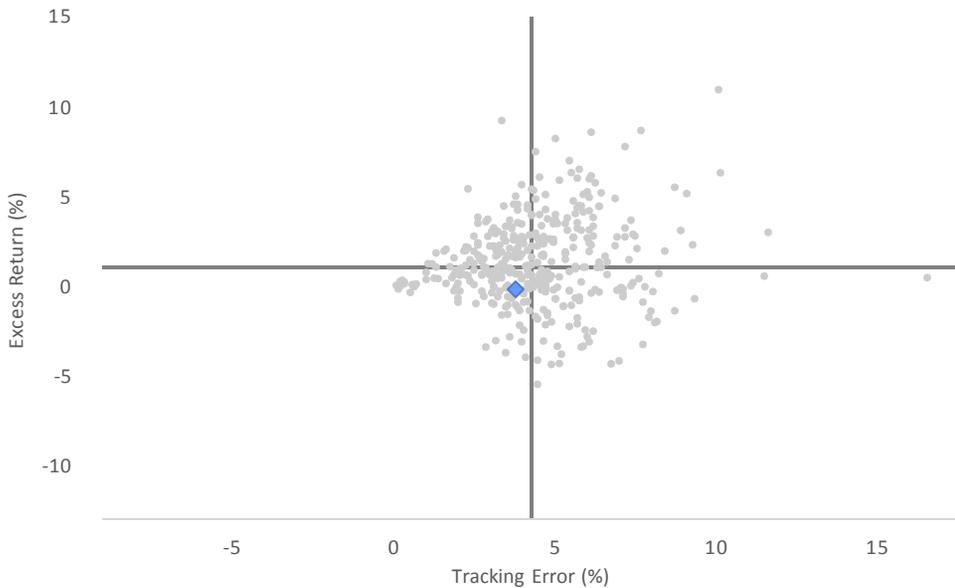


Dimensional Fund Advisors LP

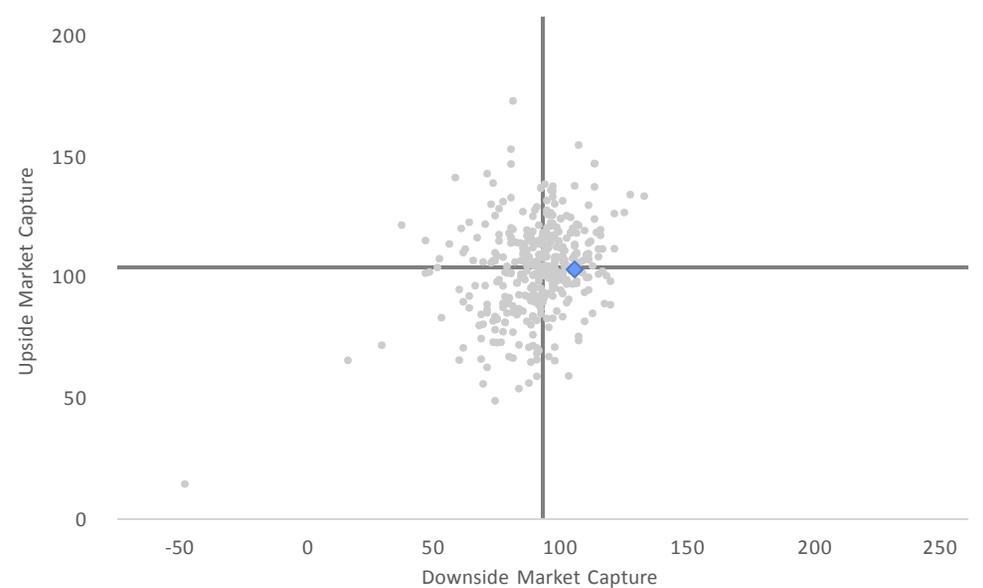
SINCE INCEPTION ROLLING 3-YEAR RETURNS



5-YEAR EXCESS RETURN VS. TRACKING ERROR



5-YEAR UPSIDE VS. DOWNSIDE



As of 3/2018

◆ Emerging Markets All Cap Value Strategy

Emerging Markets All Cap Equities

OVERVIEW

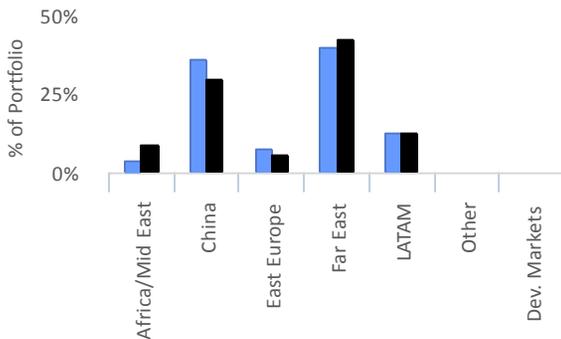
- Baillie Gifford & Co. was founded in 1908 and has been 100% employee owned since inception. Ownership is held by a select group of more than 40 active employees and tends to be prized within the organization. As such, many of the senior professionals have been with the firm their entire careers.
- The firm employs a deep group of investment professionals. The emerging markets equity team consists of a core of seven experienced members of the Portfolio Construction Group (PCG) who have worked together for many years. The PCG is also supported by two rotational analysts that move between different investment teams at the firm. Richard Sneller is the Head of Emerging Markets Equities and leads this strategy. He has been with Baillie Gifford since 1994.
- The investment philosophy is primarily a bottom-up, GARP approach where the objective is to identify stocks sustaining above-average growth rates while trading at a reasonable valuation. The main focus of the research effort is the qualitative assessment of a company's prospects. The investment teams start with industry research to identify competitive dynamics. They then look at each company's ability to achieve that potential focusing on financial strength and the skill of management. Valuation is then analyzed on a historical basis and relative to its market and sector.
- Sector, industry, and country allocations tend to be a residual effect of the stock selection process. The strategy typically holds between 60 and 90 securities.

CHARACTERISTICS

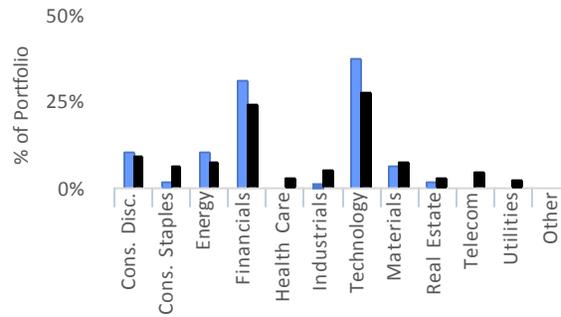
	Product	Index*
Current # of Holdings	68	863
Annual Turnover (LTM)	20.2%	—
Wgtd. Avg. Mkt. Cap	\$130,122.3	\$55,980.0
% Holdings In 10 Largest Stocks	46.6%	24.8%
Current P/E (12 mo Trailing)	18.4	15.0
Current P/B	2.4	1.8
Current Dividend Yield	2.3%	2.4%
# of Countries in Portfolio	14	25

*Index represents MSCI EM-ND

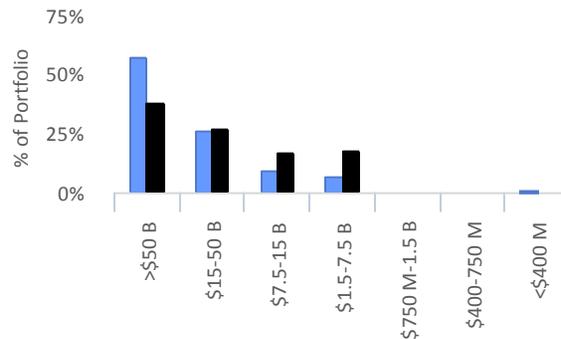
Regional Allocation



Sector Allocation



Market Cap Allocation



◆ Emerging Markets All Cap Equities
● MSCI EM

FIRM

Founded	1908
City	Edinburgh
State/Province	Scotland
Total AUM (millions)	\$249,142
Total Employees	1027
Employee Owned	100%
Minority Ownership	—

INVESTMENT TEAM

Portfolio Mgrs/Dual Role PMs	7
Portfolio Managers Avg Yrs Exp	18
Portfolio Managers Avg Yrs w/ Firm	16
Research Analysts	2
Analysts Avg Yrs Exp	3
Analysts Avg Yrs w/Firm	2
Traders	12
Traders Avg Yrs Exp	21
Traders Avg Yrs w/Firm	15

PRODUCT

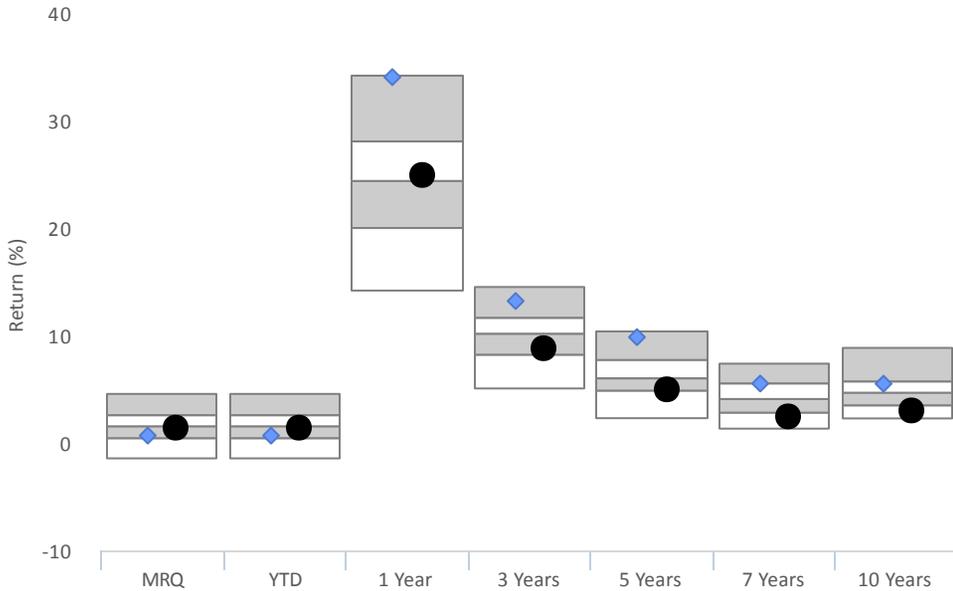
Inception Date	09/30/1994
Total AUM (millions)	\$7,669
Geographic Region	Global Emg Mkts
Market Cap	All Cap
Style	Growth

FEES & VEHICLES

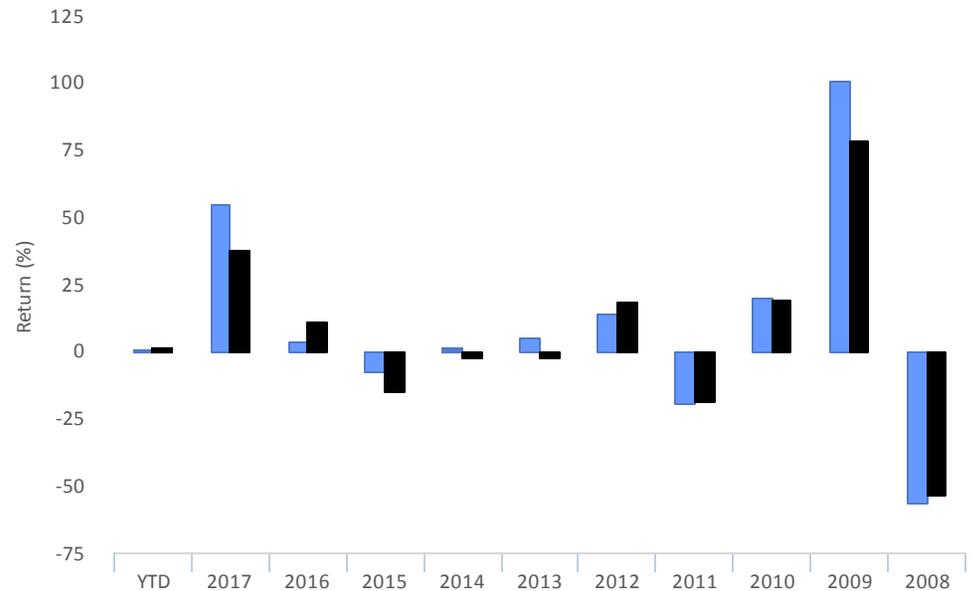
SA: Min. Invest. (millions)	\$100
SA: Fee on \$25 million (bps)	80
CF: Min. Invest. (millions)	—
CF: Fee on \$25 million (bps)	72
CF Type	Other
MF: Min. Invest. (millions)	\$25
MF: Fee on \$25 million (bps)	85
Ticker	BGKEX

Emerging Markets All Cap Equities

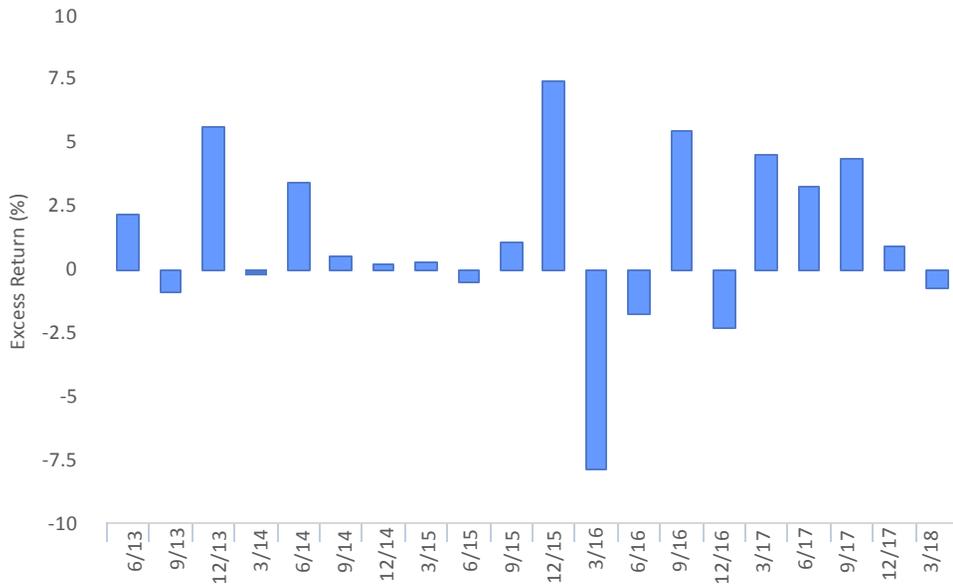
UNIVERSE RETURN RANK



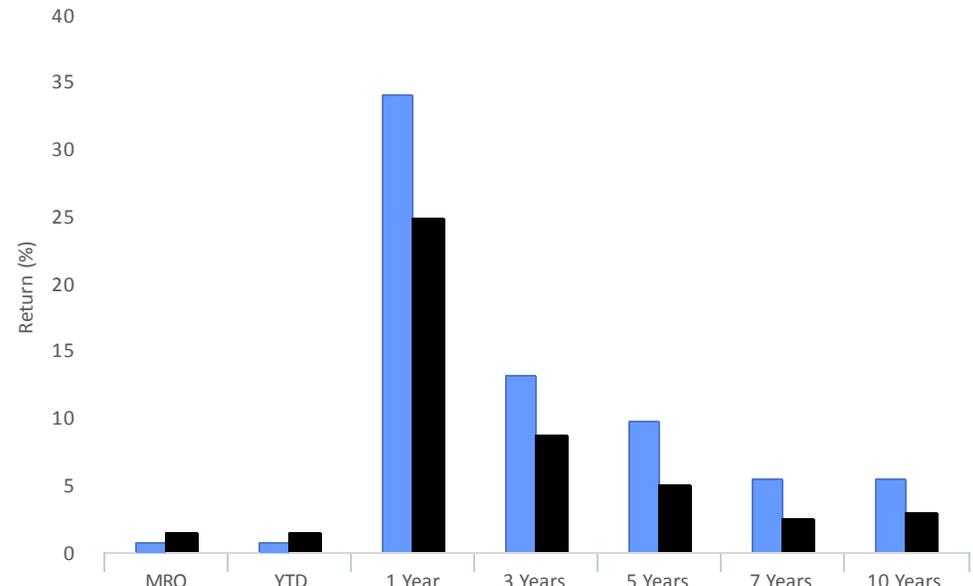
CALENDAR YEAR RETURNS



QUARTERLY EXCESS RETURN



ANNUALIZED RETURNS

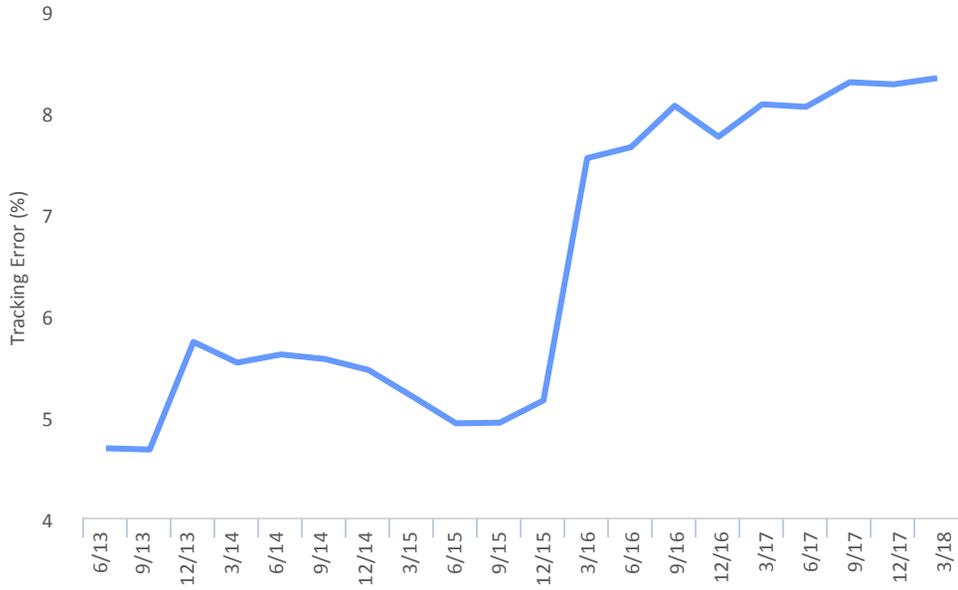


As of 3/2018

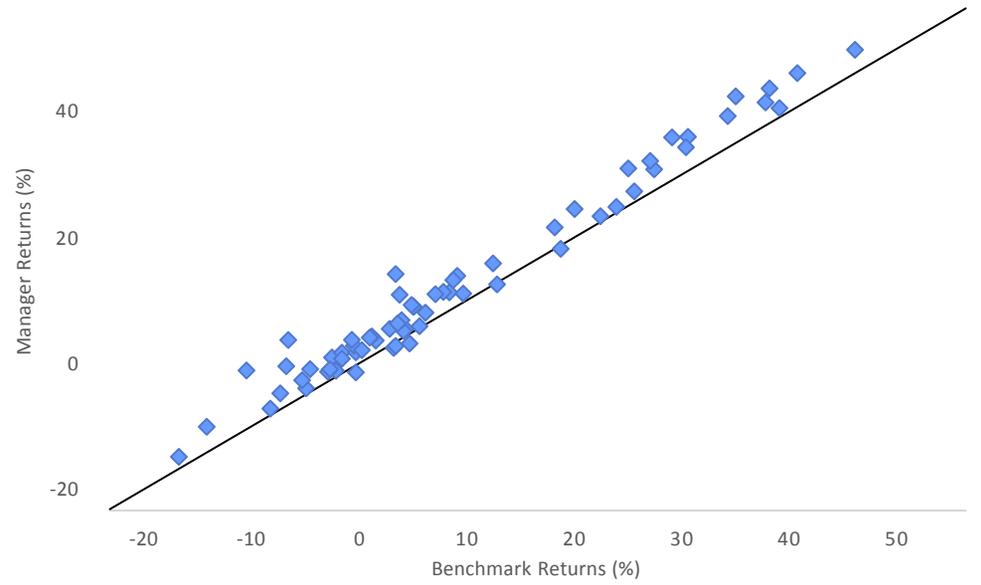
◆ Emerging Markets All Cap Equities
● MSCI EM

Emerging Markets All Cap Equities

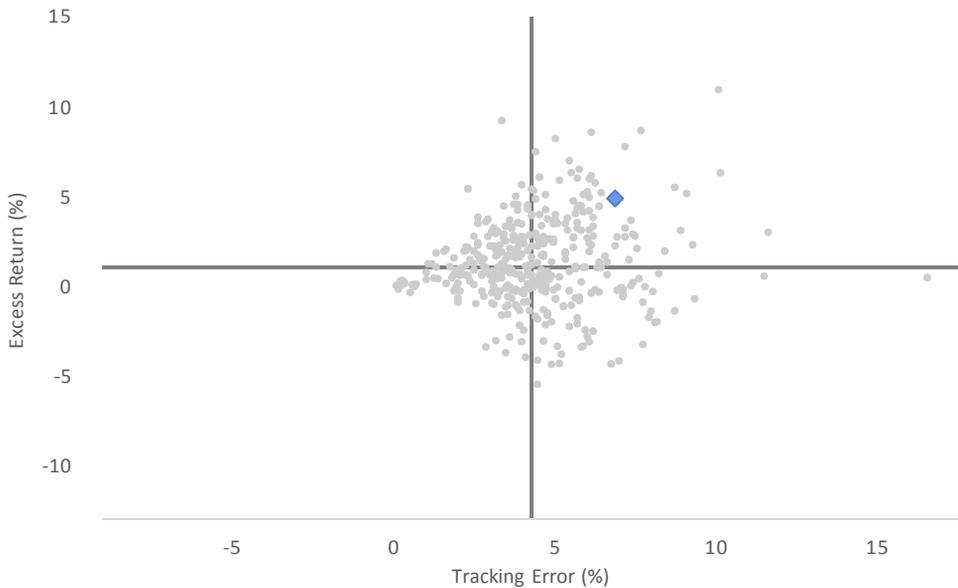
ROLLING 3-YEAR TRACKING ERROR



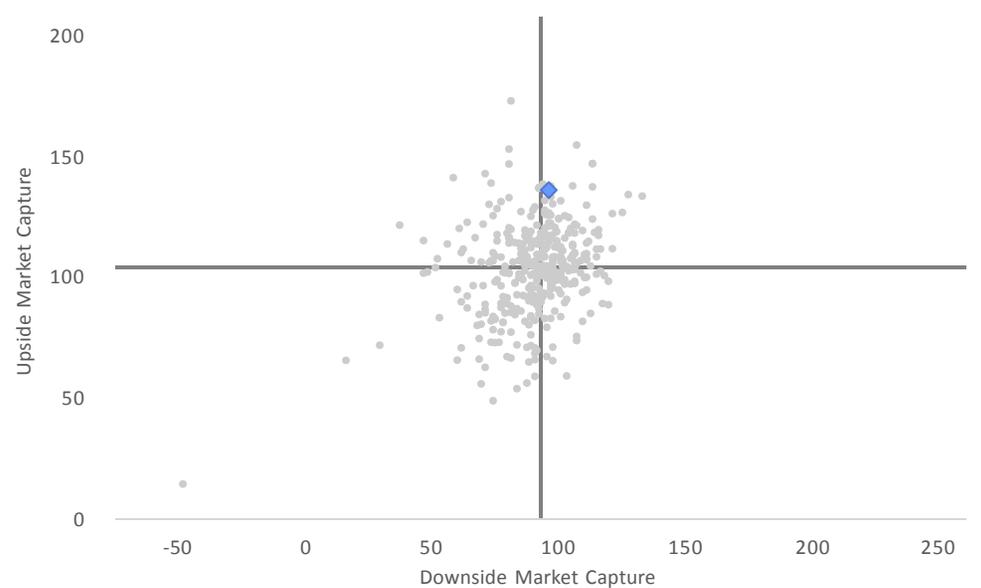
SINCE INCEPTION ROLLING 3-YEAR RETURNS



5-YEAR EXCESS RETURN VS. TRACKING ERROR



5-YEAR UPSIDE VS. DOWNSIDE



As of 3/2018

◆ Emerging Markets All Cap Equities

Emerging Markets Equity

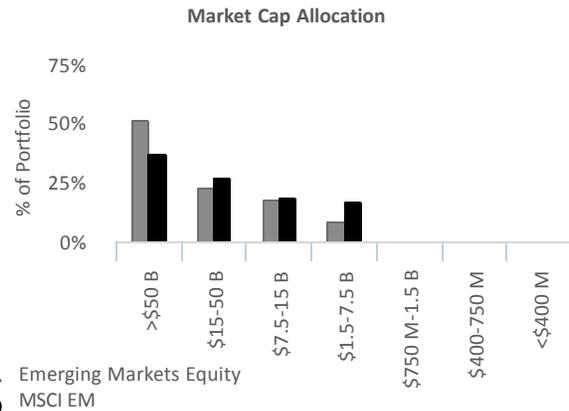
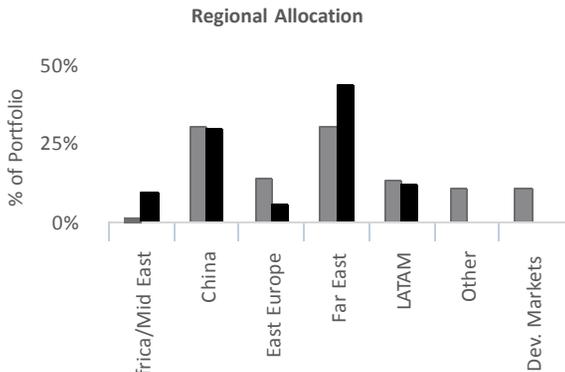
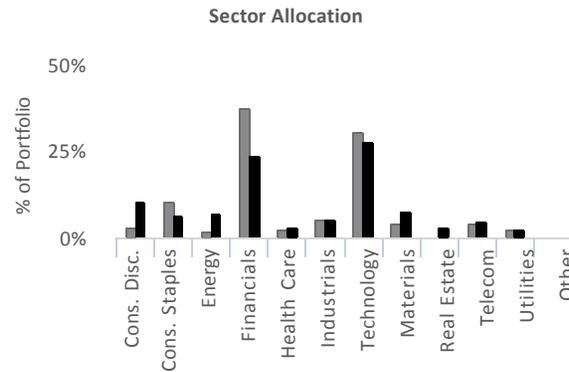
OVERVIEW

- GQG Partners is based in Ft. Lauderdale, FL and was launched in June 2016 by founder Rajiv Jain (Chairman & CIO). The firm is majority owned by Jain (95%) with the remaining ownership held by financial and business partner Pacific Current Group (5%).
- Jain was previously CIO and co-CEO of Vontobel's asset management business where he managed Global, International, and EM portfolios for more than 20 years. During his tenure, the equity business grew from \$500 million to just under \$50 billion prior to his departure in early 2016. Jain is supported by a team of generalist analysts and dedicated traders.
- The team looks for dislocations created by the market's short-term focus on near-term earnings rather than durable business models. Screens are used to narrow the overall global universe down to a list of 300-350 companies based on consistent historical profits, high ROE/ROA and manageable leverage. Analysts are tasked with assessing the future landscape of the company, not simply what made the company successful in the past. The team puts a heavy emphasis on management and their capital allocation decisions. Valuation is at the back end of the process once a great business is uncovered, to determine if current prices provide adequate compensation for overall risk.
- Portfolios are conviction weighted and tend to hold 50 to 80 securities. Sector constraints are fairly loose and require at least 5 sectors represented in the portfolio at all times. Country allocations can range +/-20% on an index relative basis vs. the MSCI EM Index. Individual positions are capped at 7%.

CHARACTERISTICS

	Product	Index*
Current # of Holdings	61	863
Annual Turnover (LTM)	65.2%	—
Wgtd. Avg. Mkt. Cap	\$126,805.2	\$57,880.0
% Holdings In 10 Largest Stocks	41.7%	25.0%
Current P/E (12 mo Trailing)	18.2	17.6
Current P/B	3.2	1.8
Current Dividend Yield	1.7%	2.2%
# of Countries in Portfolio	15	25

*Index represents MSCI EM-ND



◆ Emerging Markets Equity
● MSCI EM

FIRM

Founded	2016
City	Fort Lauderdale
State/Province	Florida
Total AUM (millions)	\$10,697
Total Employees	37
Employee Owned	95%
Minority Ownership	95%

INVESTMENT TEAM

Portfolio Mgrs/Dual Role PMs	1
Portfolio Managers Avg Yrs Exp	24
Portfolio Managers Avg Yrs w/ Firm	2
Research Analysts	9
Analysts Avg Yrs Exp	16
Analysts Avg Yrs w/Firm	1
Traders	2
Traders Avg Yrs Exp	8
Traders Avg Yrs w/Firm	1

PRODUCT

Inception Date	06/01/2016
Total AUM (millions)	\$4,577
Geographic Region	Global Emg Mkts
Market Cap	Large Cap
Style	Growth

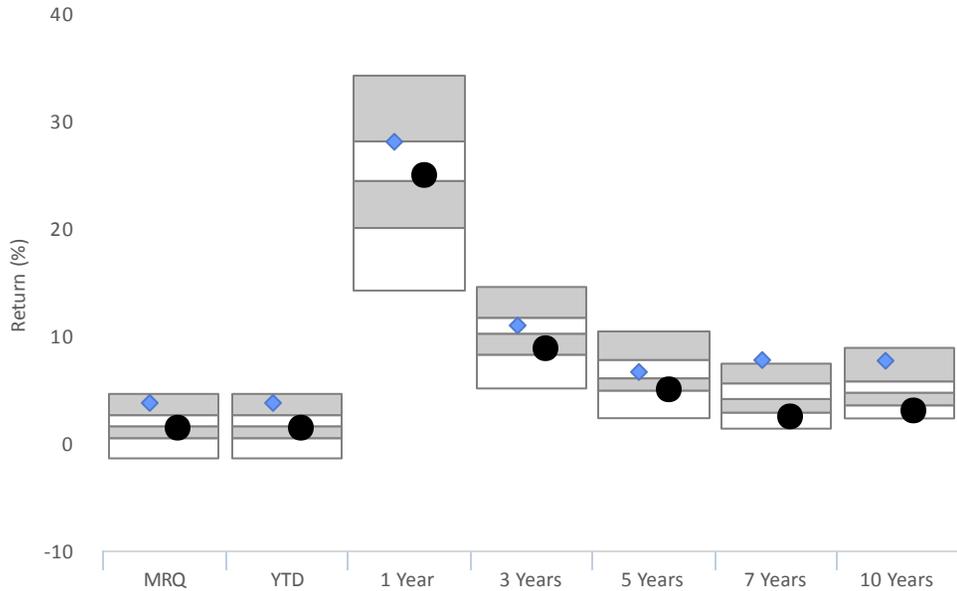
FEES & VEHICLES

SA: Min. Invest. (millions)	\$100
SA: Fee on \$25 million (bps)	85
CF: Min. Invest. (millions)	\$1
CF: Fee on \$25 million (bps)	80
CF Type	3c7
MF: Min. Invest. (millions)	\$1
MF: Fee on \$25 million (bps)	108
Ticker	GQGIX

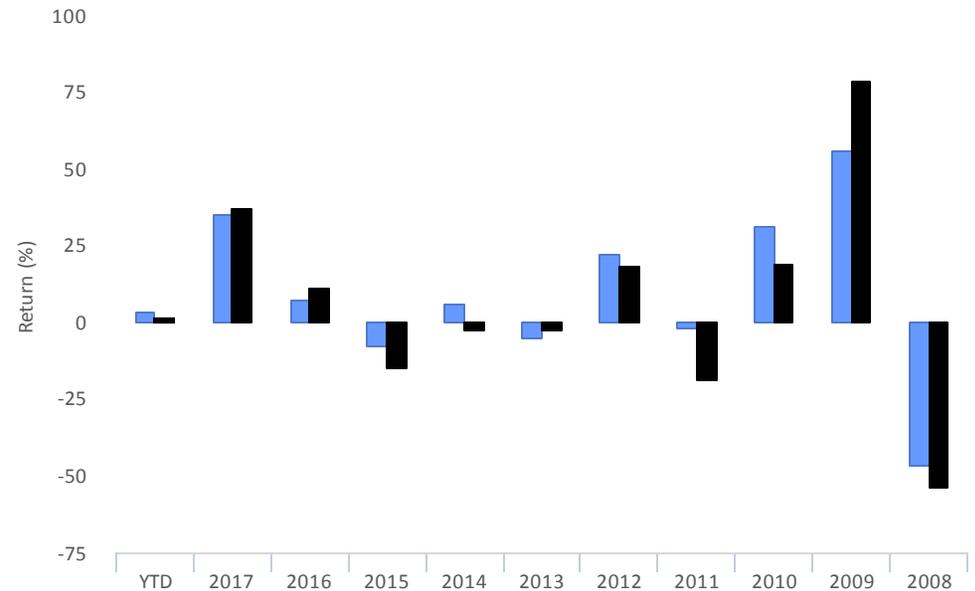
As of 12/2017

Emerging Markets Equity

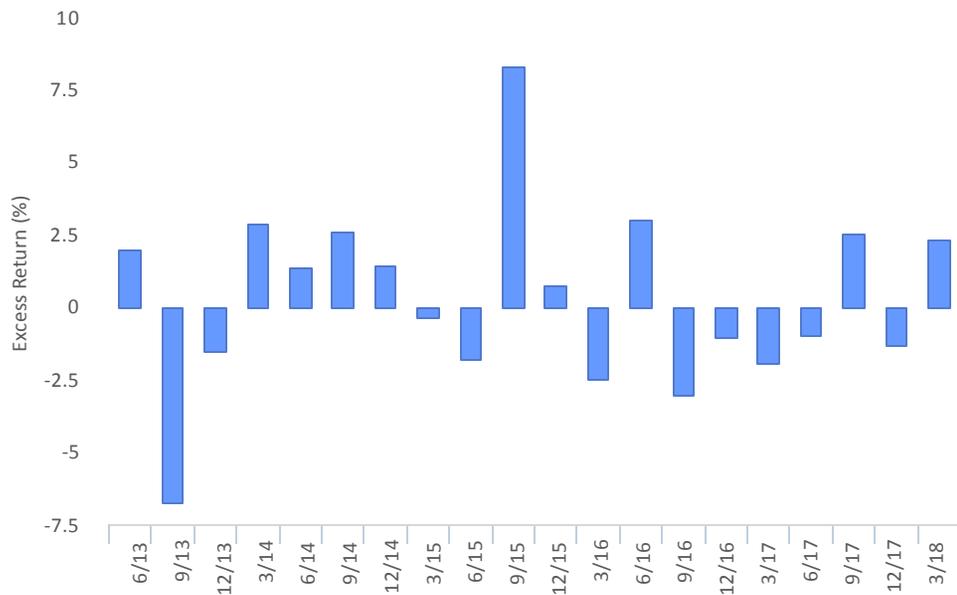
UNIVERSE RETURN RANK



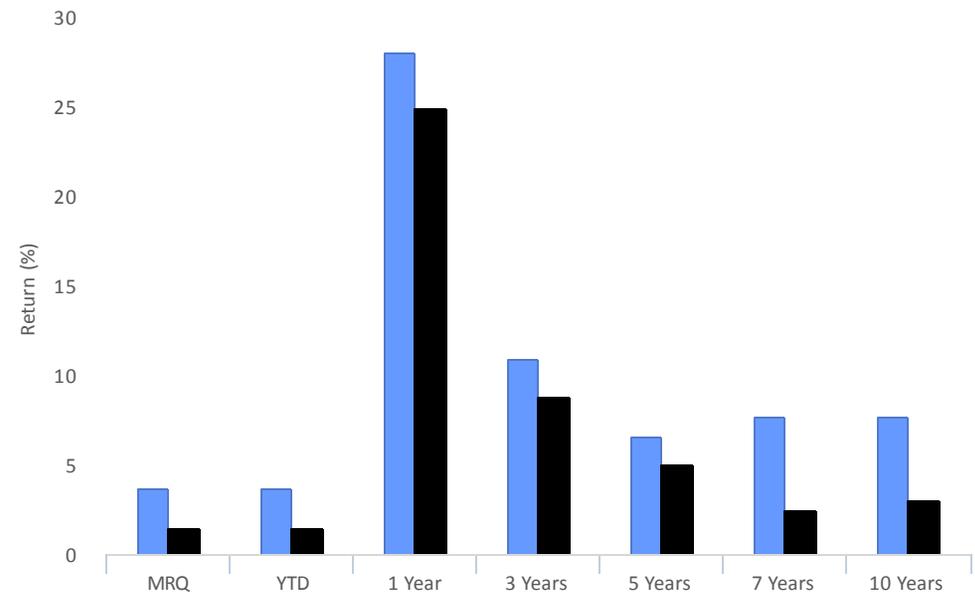
CALENDAR YEAR RETURNS



QUARTERLY EXCESS RETURN



ANNUALIZED RETURNS

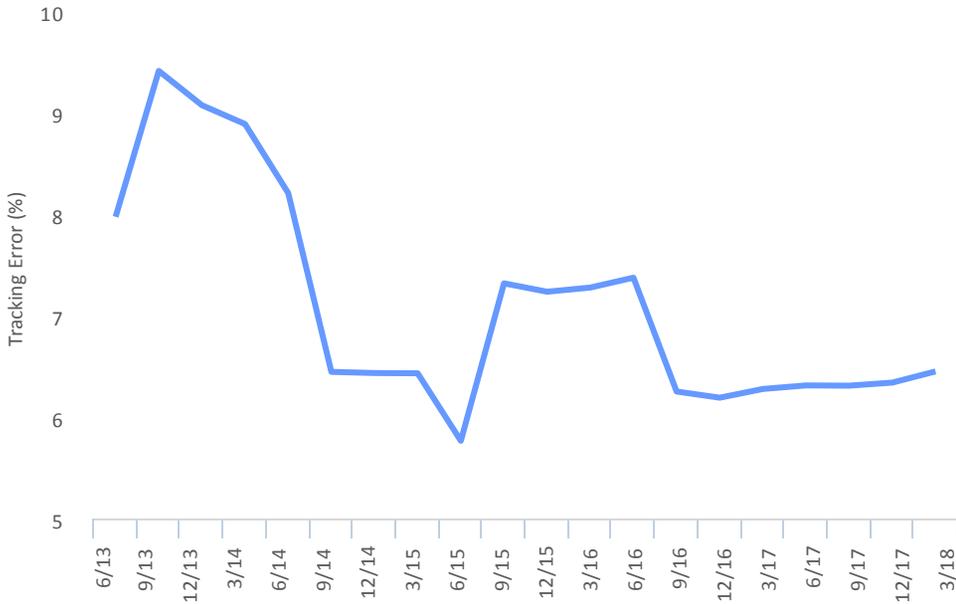


As of 3/2018

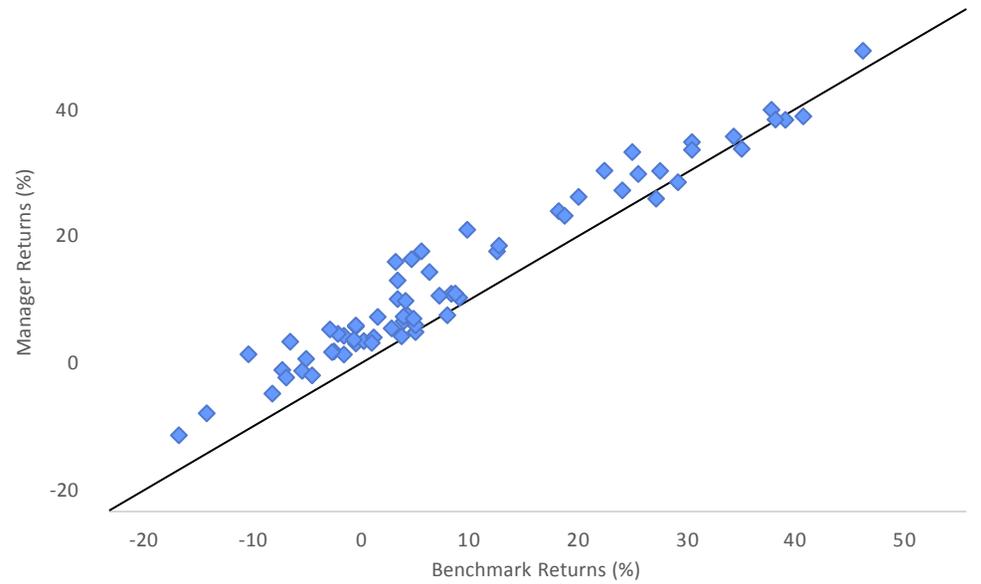
◆ GQG Emerging Markets ● MSCI EM

Emerging Markets Equity

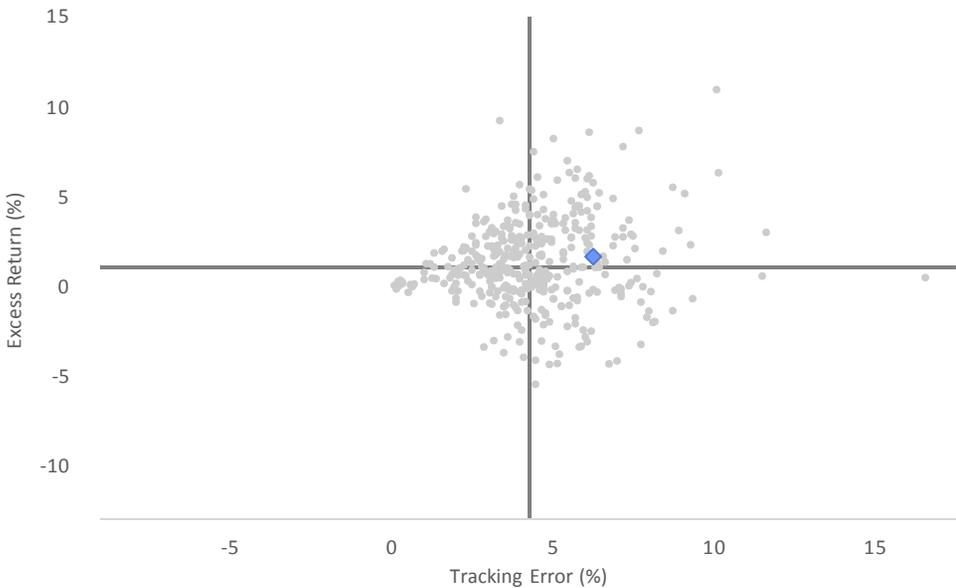
ROLLING 3-YEAR TRACKING ERROR



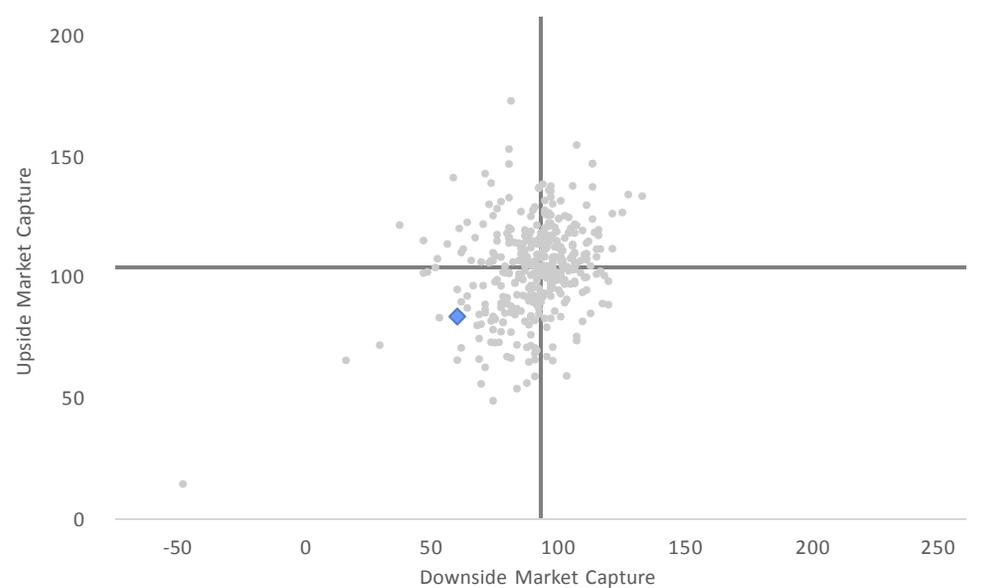
SINCE INCEPTION ROLLING 3-YEAR RETURNS



5-YEAR EXCESS RETURN VS. TRACKING ERROR



5-YEAR UPSIDE VS. DOWNSIDE



As of 3/2018

◆ GQG Emerging Markets

Emerging Markets Equity

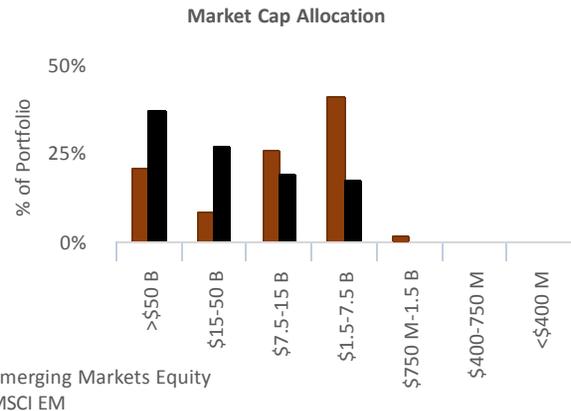
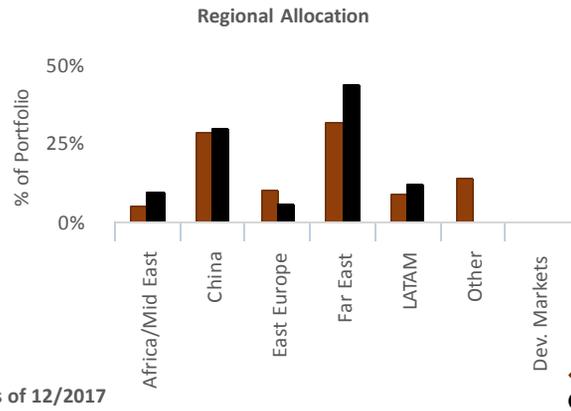
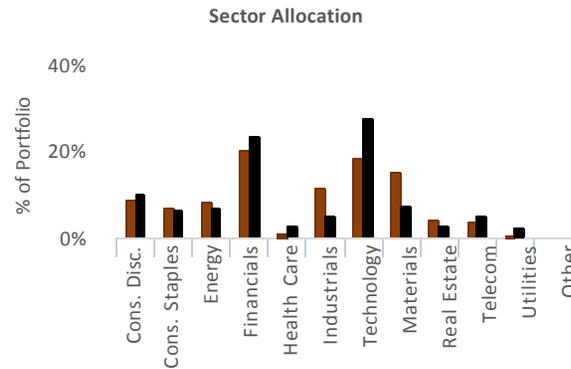
OVERVIEW

- RWC Partners Limited (RWC) is an independent, London-based investment firm founded in 2000. They have four offices (London, Miami, Tampa, and Singapore) in which they manage equity, fixed income, and hedge fund assets on behalf of a global client base. With over 155 employees (67 investment professionals) RWC specializes in providing solutions to investing across developed and emerging market equities and fixed income.
- Schroders Group has held a non-controlling minority interest since 2010. The strategy was launched in 2012 and is led by John Malloy out of the Miami office. John is supported by Thomas Allraum, co-PM, Cem Akyureck, Chief Economist, and a team of 14 dedicated EM and Frontier markets analysts. This team joined RWC in 2015 after having worked together at Everest Capital for many years. Members of the team are organized first by region/country, and are then assigned sector specialties.
- This strategy combines top-down and bottom-up approaches with the belief that investors can benefit by being opportunistic and forward looking. Rather than using the benchmark as a starting point, the team seeks to identify tailwinds and headwinds through their proprietary top-down macro analysis in an effort to tilt the portfolio toward favorable macro factors. From there, the strategy seeks growth opportunities trading at reasonable prices. Each regional analyst works closely with John in evaluating potential and current investments, as well as in setting price targets.
- The portfolio will typically hold between 50-75 names and turnover is typically in the range of 50-100%. The portfolio will typically have growth tilt and theme and sector-based investments can be meaningful.

CHARACTERISTICS

	Product	Index*
Current # of Holdings	56	863
Annual Turnover (LTM)	78.0%	—
Wgtd. Avg. Mkt. Cap	\$37,532.0	\$57,880.0
% Holdings In 10 Largest Stocks	37.8%	25.0%
Current P/E (12 mo Trailing)	21.4	17.6
Current P/B	3.2	1.8
Current Dividend Yield	1.9%	2.2%
# of Countries in Portfolio	22	25

*Index represents MSCI EM-ND



RWC Partners

FIRM

Founded	2000
City	London
State/Province	England
Total AUM (millions)	\$14,222
Total Employees	135
Employee Owned	58%
Minority Ownership	—

INVESTMENT TEAM

Portfolio Mgrs/Dual Role PMs	2
Portfolio Managers Avg Yrs Exp	23
Portfolio Managers Avg Yrs w/ Firm	15
Research Analysts	14
Analysts Avg Yrs Exp	12
Analysts Avg Yrs w/Firm	6
Traders	4
Traders Avg Yrs Exp	3
Traders Avg Yrs w/Firm	21

PRODUCT

Inception Date	08/01/2012
Total AUM (millions)	\$4,201
Geographic Region	Global Emg Mkts
Market Cap	All Cap
Style	Growth

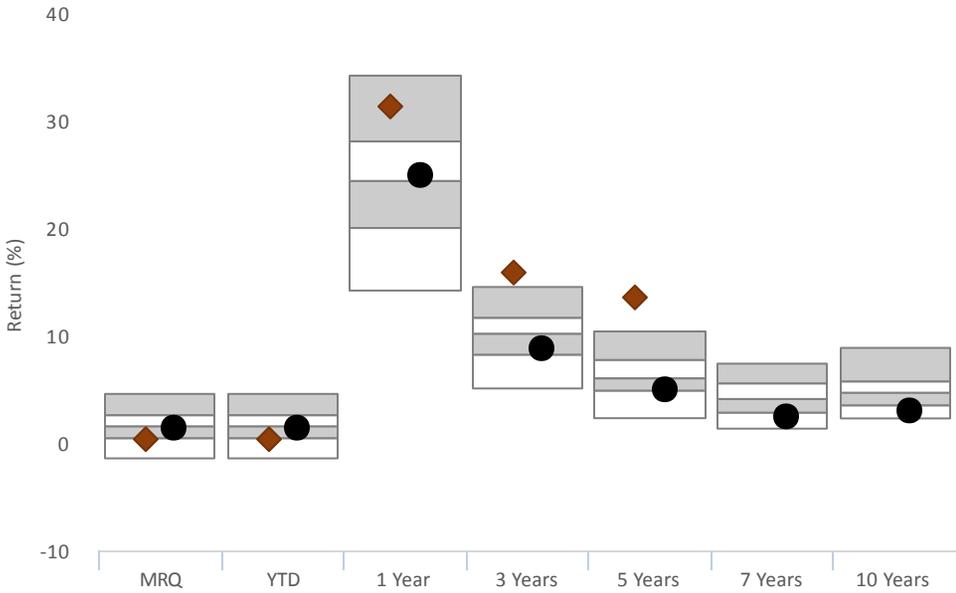
FEES & VEHICLES

SA: Min. Invest. (millions)	\$150
SA: Fee on \$25 million (bps)	75
CF: Min. Invest. (millions)	\$5
CF: Fee on \$25 million (bps)	75
CF Type	3c7
MF: Min. Invest. (millions)	\$10
MF: Fee on \$25 million (bps)	—
Ticker	—

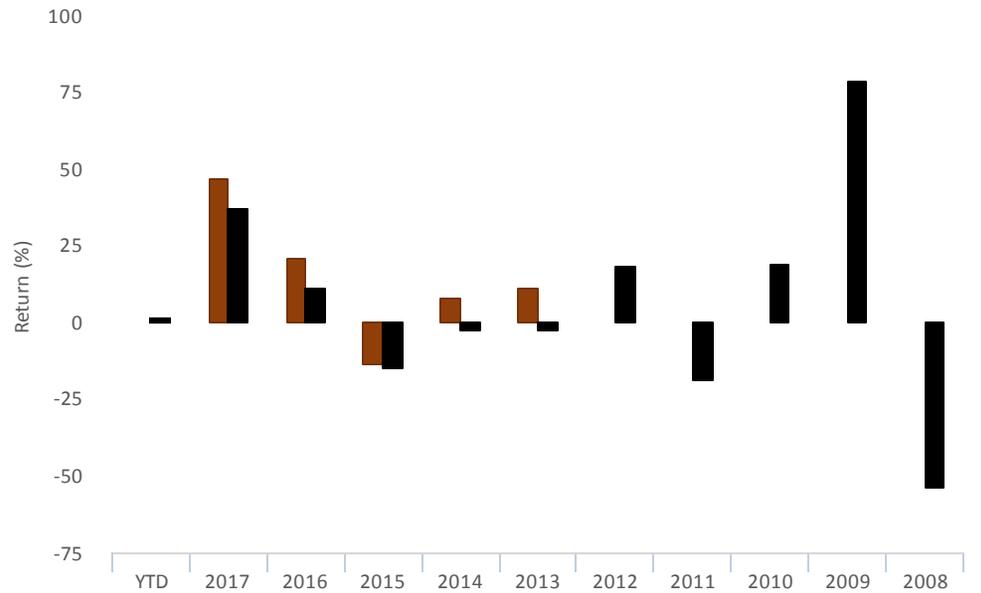
As of 12/2017

Emerging Markets Equity

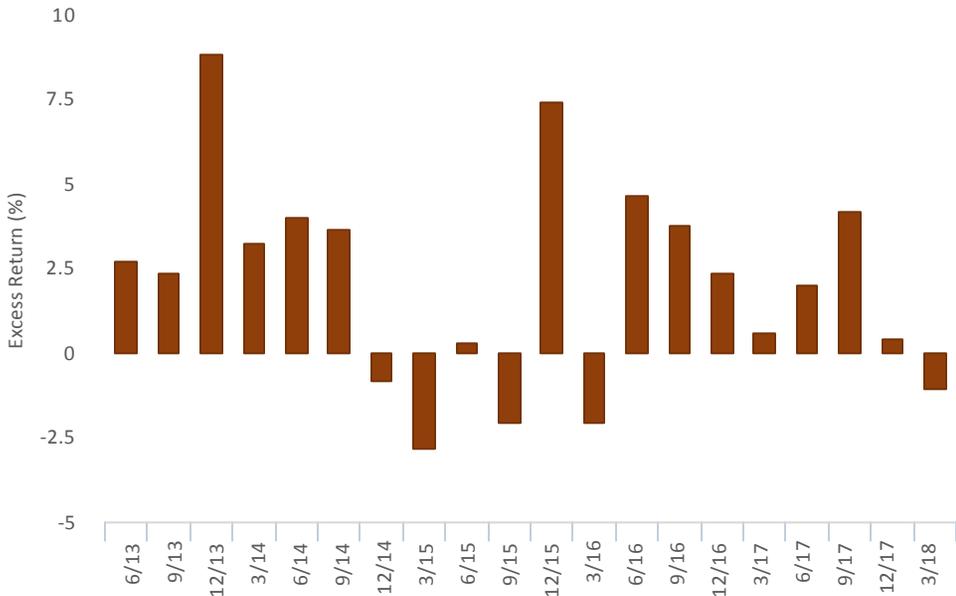
UNIVERSE RETURN RANK



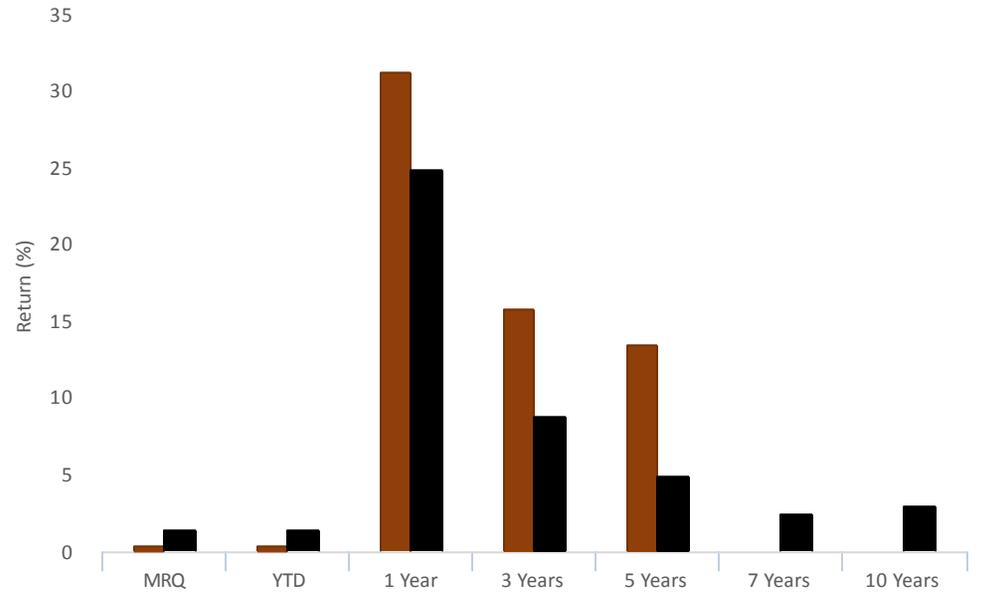
CALENDAR YEAR RETURNS



QUARTERLY EXCESS RETURN



ANNUALIZED RETURNS

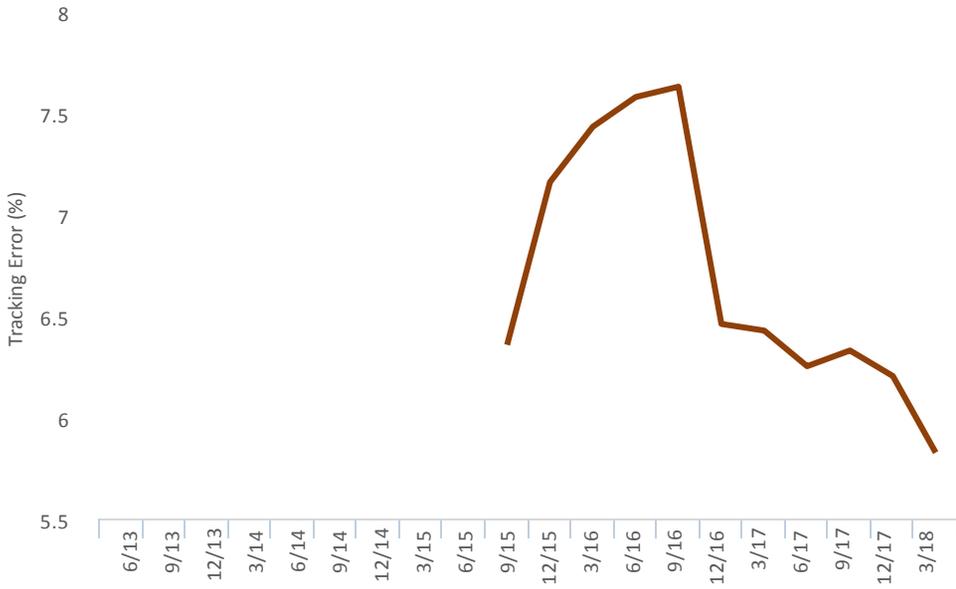


As of 3/2018

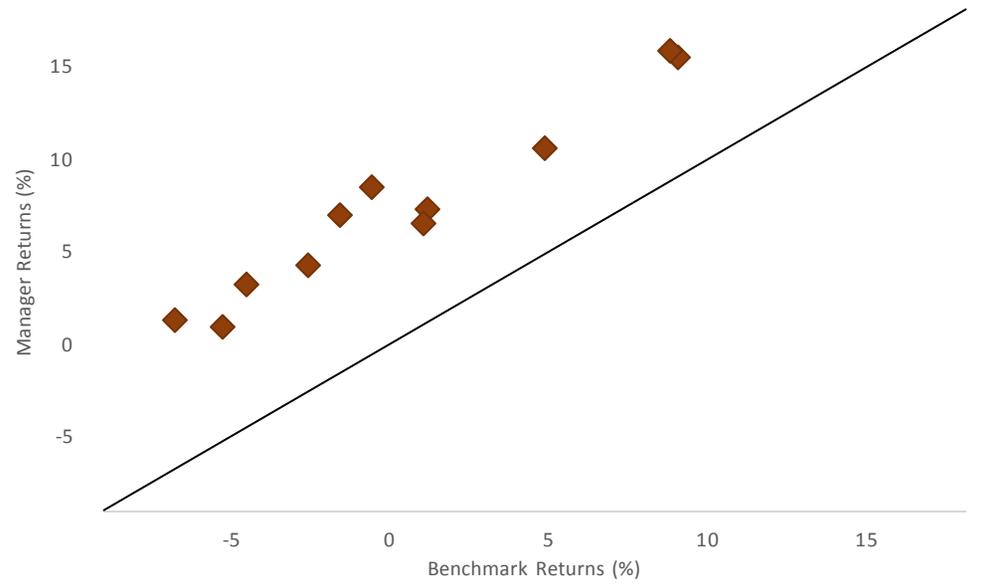
◆ Emerging Markets Equity
● MSCI EM

Emerging Markets Equity

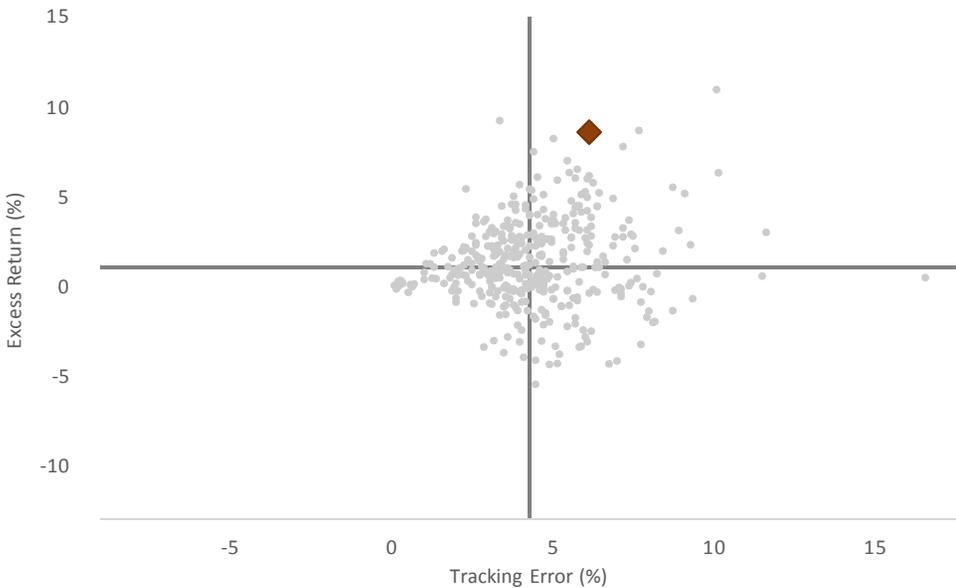
ROLLING 3-YEAR TRACKING ERROR



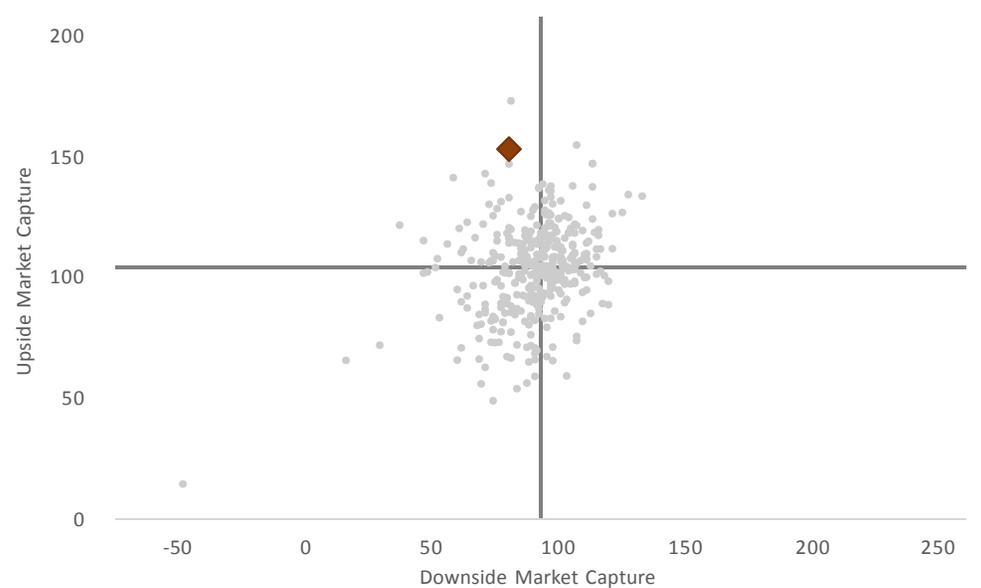
SINCE INCEPTION ROLLING 3-YEAR RETURNS



5-YEAR EXCESS RETURN VS. TRACKING ERROR



5-YEAR UPSIDE VS. DOWNSIDE



As of 3/2018

◆ Emerging Markets Equity

Emerging Markets Growth

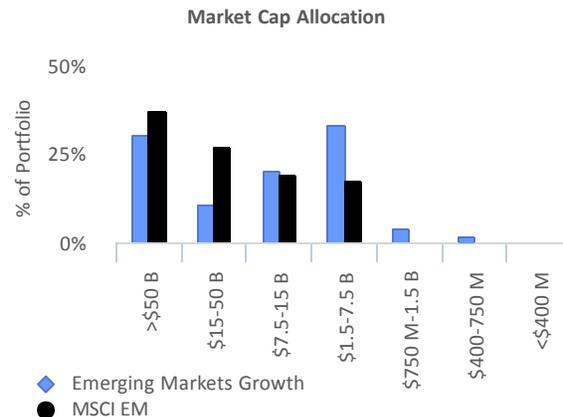
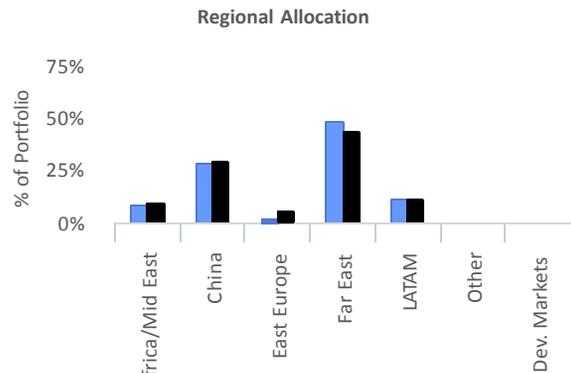
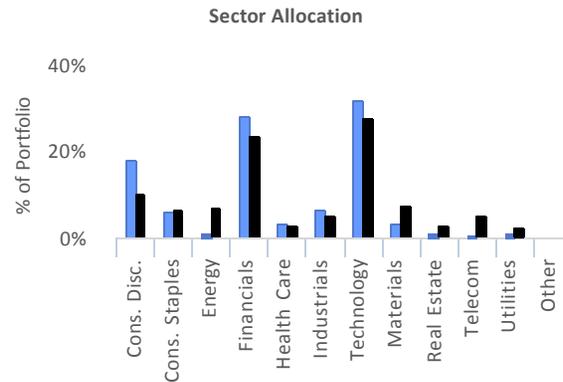
OVERVIEW

- William Blair & Co has been in operation since 1935. Since that time, the firm has remained employee owned. Currently the firm is 100% owned by over 59 active employees – approximately 20% of the firm. No single employee owns more than 5%. This broad-based, non-concentrated ownership structure is ideal for the investment management industry.
- The strategy was launched in September 1996, focusing on finding the best quality growth companies within emerging markets regardless of size. Todd McClone, CFA, Partner, and Casey Preyss, CFA, Partner are portfolio managers for the Emerging Markets Growth strategy. Mr. McClone is also portfolio manager for William Blair Emerging Markets Leaders and Emerging Markets Small Cap Growth strategies. Mr. Preyss also manages their China-A Shares strategy, which recently launched in December 2017.
- The team focuses on finding companies with a strong management team with a proven track record, competitive advantages that drive the duration and size of the companies' growth trajectory, and strong/improving margins, consistent earnings growth, and low financial leverage. Sector, industry, and country weightings are largely a function of security selection decisions and are not normalized around benchmark weightings but tend to emphasize sectors with stronger growth characteristics.
- Portfolios will be all-cap in nature, with predetermined boundaries on allocation to small-,mid-,and large-cap companies. A moderately concentrated portfolio is built with risk controls that have been established at the sector and regional level.

CHARACTERISTICS

	Product	Index*
Current # of Holdings	132	863
Annual Turnover (LTM)	90.3%	—
Wgtd. Avg. Mkt. Cap	\$76,166.1	\$57,880.0
% Holdings In 10 Largest Stocks	34.3%	25.0%
Current P/E (12 mo Trailing)	24.7	17.6
Current P/B	4.7	1.8
Current Dividend Yield	1.1%	2.2%
# of Countries in Portfolio	21	25

*Index represents MSCI EM-ND



As of 12/2017

William Blair Investment Management, LLC

FIRM

Founded	1935
City	Chicago
State/Province	Illinois
Total AUM (millions)	\$73,554
Total Employees	379
Employee Owned	100%
Minority Ownership	—

INVESTMENT TEAM

Portfolio Mgrs/Dual Role PMs	3
Portfolio Managers Avg Yrs Exp	25
Portfolio Managers Avg Yrs w/ Firm	18
Research Analysts	19
Analysts Avg Yrs Exp	16
Analysts Avg Yrs w/Firm	10
Traders	6
Traders Avg Yrs Exp	17
Traders Avg Yrs w/Firm	7

PRODUCT

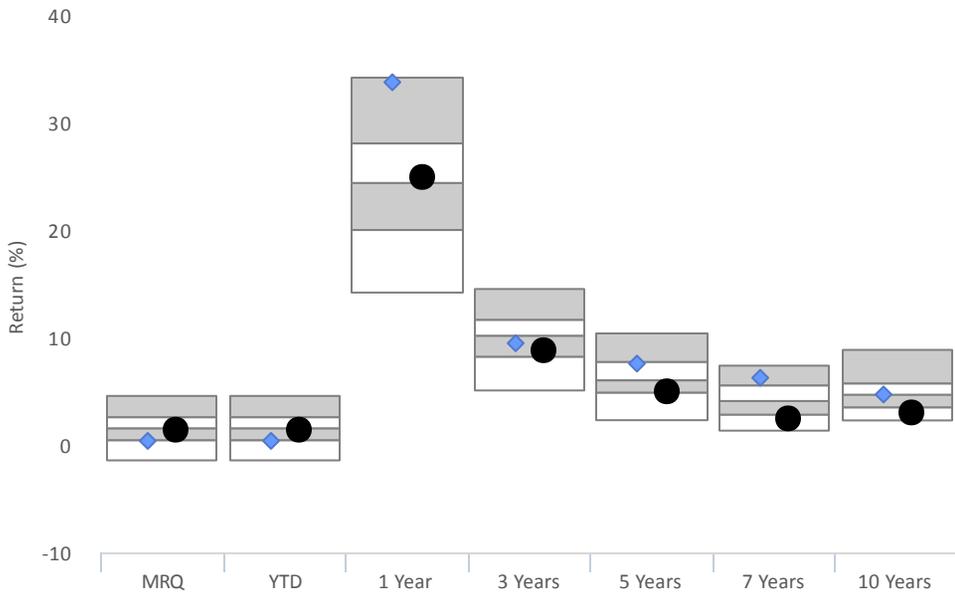
Inception Date	10/01/1996
Total AUM (millions)	\$5,997
Geographic Region	Global Emg Mkts
Market Cap	All Cap
Style	Growth

FEES & VEHICLES

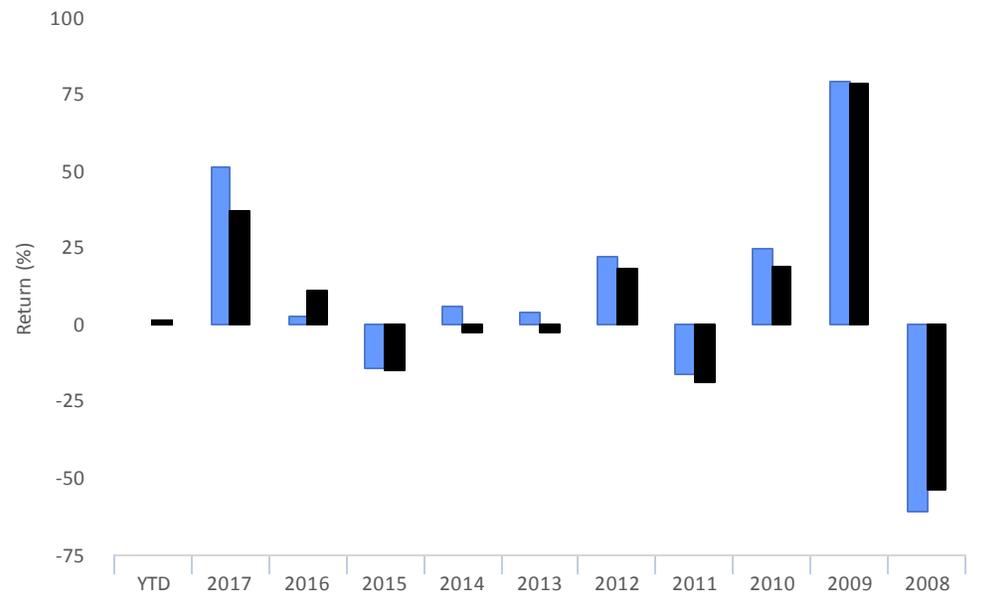
SA: Min. Invest. (millions)	\$20
SA: Fee on \$25 million (bps)	96
CF: Min. Invest. (millions)	\$20
CF: Fee on \$25 million (bps)	96
CF Type	Other
MF: Min. Invest. (millions)	\$5
MF: Fee on \$25 million (bps)	119
Ticker	BIEMX

Emerging Markets Growth

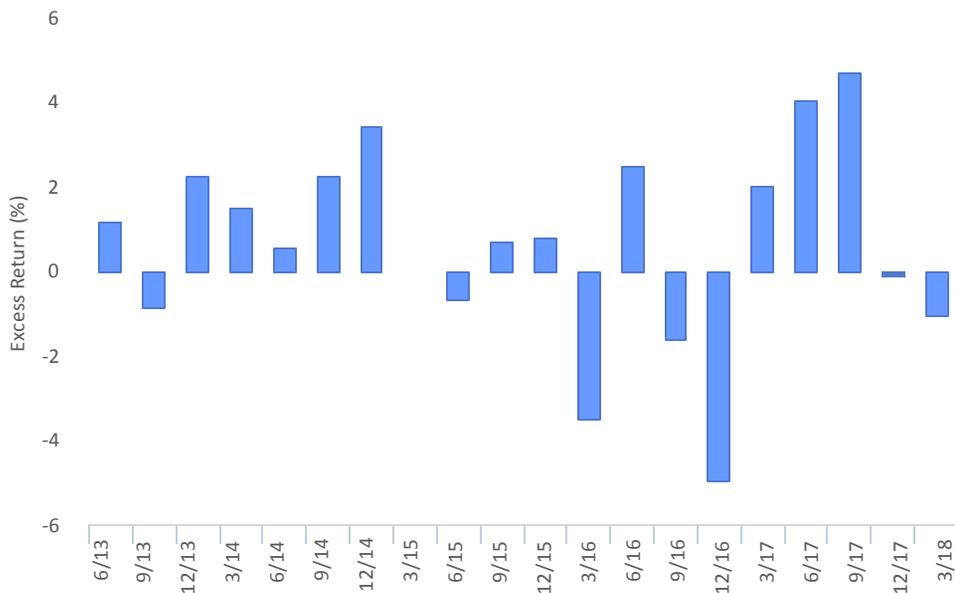
UNIVERSE RETURN RANK



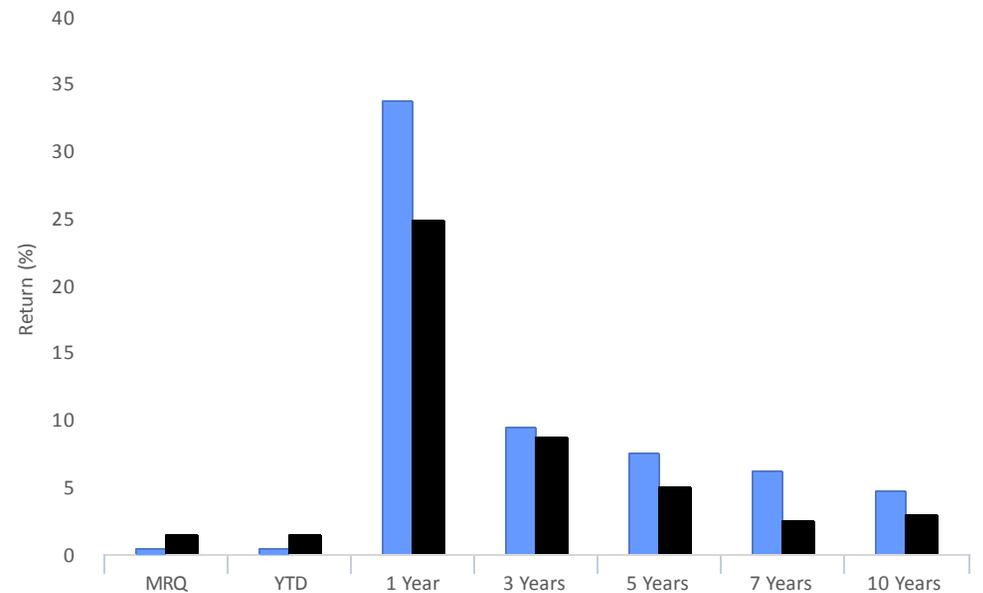
CALENDAR YEAR RETURNS



QUARTERLY EXCESS RETURN



ANNUALIZED RETURNS

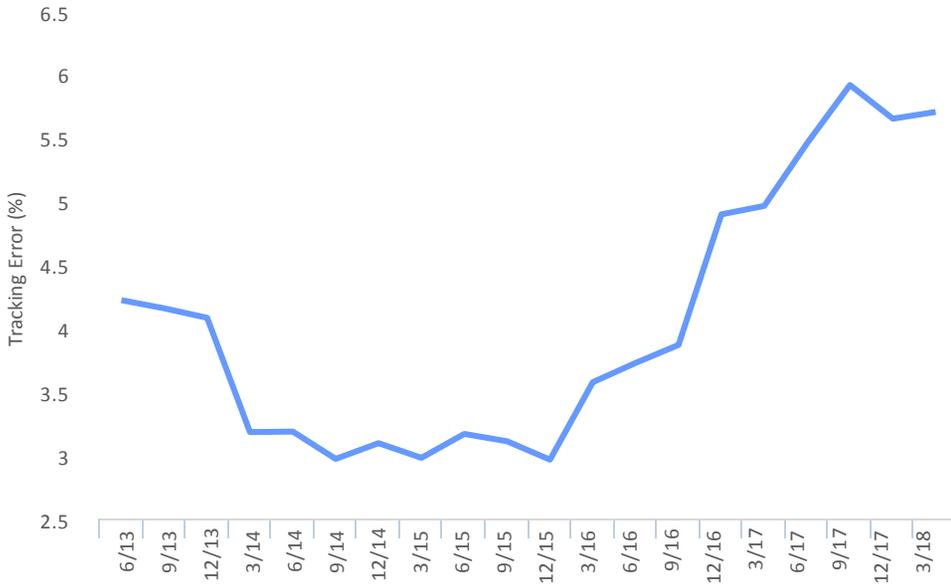


As of 3/2018

◆ Emerging Markets Growth
● MSCI EM

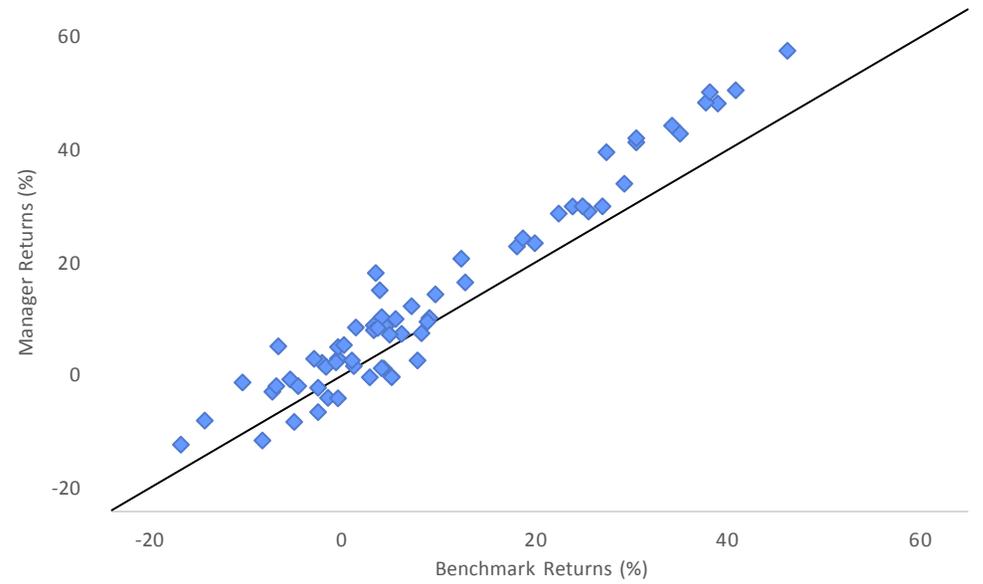
Emerging Markets Growth

ROLLING 3-YEAR TRACKING ERROR

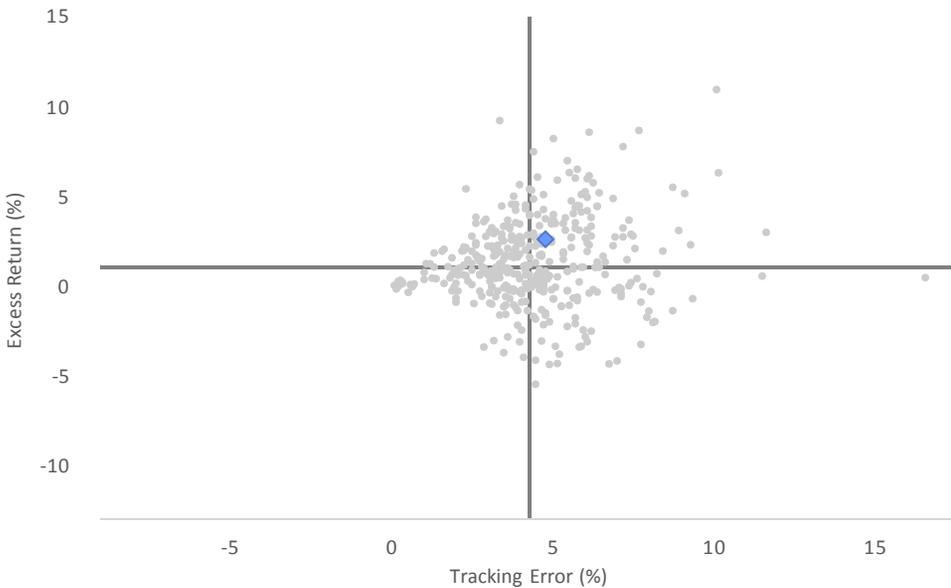


William Blair Investment Management, LLC

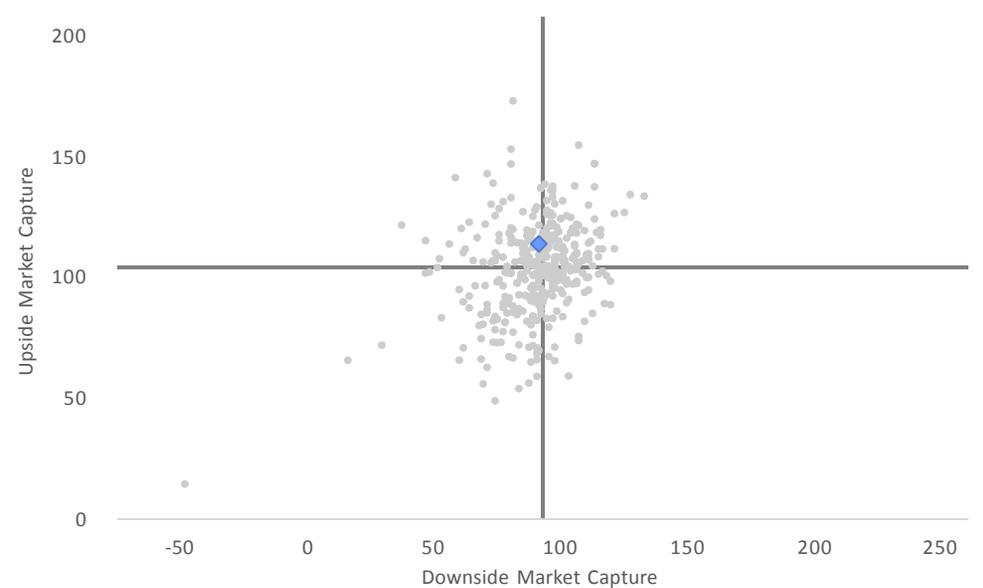
SINCE INCEPTION ROLLING 3-YEAR RETURNS



5-YEAR EXCESS RETURN VS. TRACKING ERROR



5-YEAR UPSIDE VS. DOWNSIDE



As of 3/2018

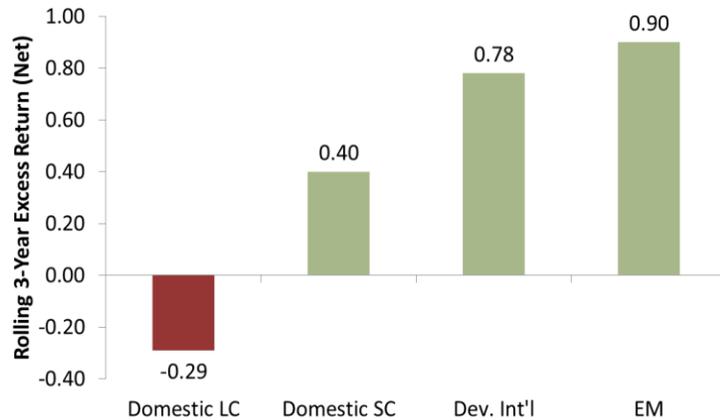
◆ Emerging Markets Growth

Thesis: Emphasize stock-picking to take advantage of structural opportunities under a risk controlled framework.

Key Considerations/Opportunities

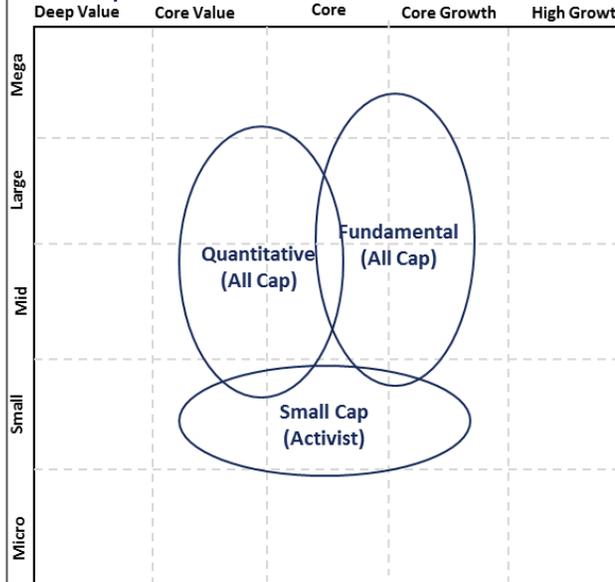
- Volatile Asset Class—33% more volatile than developed.
- Active Opportunity—universe breadth, lack of coverage.
- Layers of Risk—social, political, regional, company.
- Activism—informational inefficiencies.
- Growth—attractive economic and demographic future.

Achieving An Attractive Return Profile



- Active Management—consistent/high alpha potential.
- Style—embrace long-term growth characteristics.
- Size—all cap implementation, quant/fundamental blend.
- Quantitative Base—control tracking error, retain alpha.
- Fundamental—forward-looking, bottom-up complement.
- Activism—effect outcomes, create opportunities.

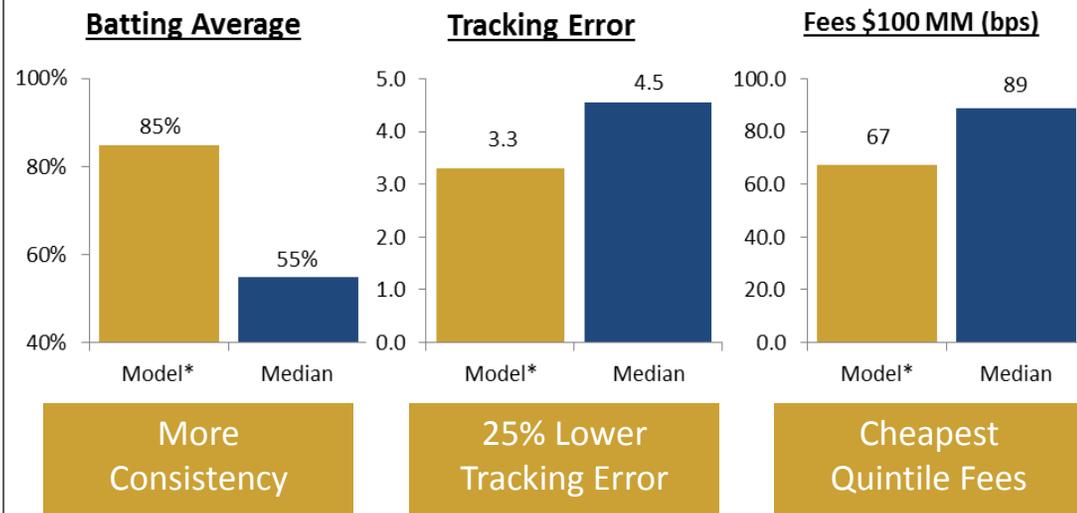
Implementation Recommendation



Conviction: High 8

Vs. MSCI EM	Expectations
Style	Core
Size	All Cap
Beta	Neutral
Tracking Error	300-500
Excess Return	150-250 (Net)
Up/Down	110%/100%

Implementation vs. Opportunity Set – 5 Years



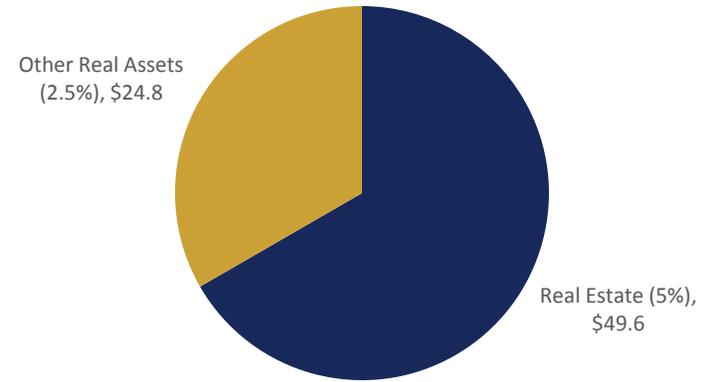
Real Assets Fund of Funds Search

Portfolio Snapshot — December 31, 2017

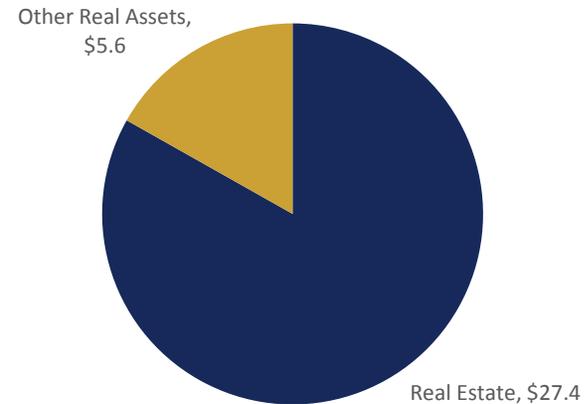
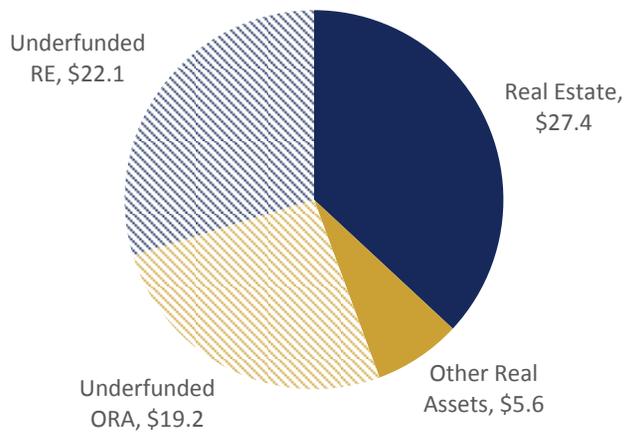
Portfolio Overview

Total Assets	\$991.4 million
Target Allocation (7.5% of assets)	\$74.4 million
Actual Market Value	\$33.0 million
-- Actual % of Total --	3.3%
Total # of Investments	6
Limited Partnership Commitments	\$90 million
# of Limited Partnerships (active)	6
Remaining Callable	\$23.4 million

Target Allocation Mix



Actual Allocation



Real Assets Portfolio—December 31, 2017

Partnerships	Vintage Year	Investment Strategy	Capital Commitment (\$)	Drawn Down (\$)	Distributed (\$)	Market Value (\$,1)	IRR (% ¹)	TVPI Multiple (1, 2)	Valuation Date (1)
Real Asset Partnerships									
TA Realty Associates VIII	2006	Real Estate - Value Added	10,000,000	10,000,000	6,973,822	2,761,813	-0.31	0.97	12/31/2017
TA Realty Associates IX	2008	Real Estate - Value Added Real	10,000,000	10,000,000	15,735,870	405,147	10.72	1.61	12/31/2017
Partners Group Global Real Estate 2011(3)	2011	Estate - Opportunistic (FOF) Real	15,000,000	13,351,599	8,452,985	8,827,822	6.99	1.29	12/31/2017
Partners Group Global Real Estate 2014	2013	Estate - Opportunistic (FOF)	25,000,000	13,833,263	1,679,104	15,452,337	10.50	1.24	12/31/2017
Commonfund Natural Resources X	2015	Natural Resources - Diversified (FOF)	7,500,000	2,246,284	189,419	2,580,214	39.24	1.23	12/31/2017
Aether Real Assets IV	2015	Natural Resources - Diversified (FOF)	7,500,000	3,171,675	393,865	2,974,036	9.39	1.06	12/31/2017
Total Real Assets (4)			90,000,000	66,551,388	52,480,111	33,001,370	6.17	1.28	12/31/2017

1) Valuations are typically reported on one quarter lag. If the valuation date is earlier than the statement's date, the market value and performance are estimated by rolling forward the latest reported balance to include relevant new cash flows.

2) Total Value to Paid In (TVPI) reflects total realized and unrealized performance.

3) Fund is not USD: Cash flows are in actual USD per the custodian. Market values and remaining commitment are translated using the spot on the valuation date.

4) Total Real Assets include fully realized partnerships.

*Source of performance data is from the Custodial Bank.

Real Assets Portfolio—Manager Summaries

Fund	Strategy
TA Realty (Funds VIII and IX)	TA Realty implements a value-add real estate strategy which is conservative on many fronts, including the amount of leverage utilized, the diversification by both property type and geographic region and its focus on current income. The strategy emphasizes small-to-medium sized investments in the four major property types. The firm's fund series targets assets in well-located, supply-constrained US markets.
Partners Group Global Real Estate (2011 and 2014)	Partners Group Global Real Estate fund series seeks global exposure to predominantly non-core strategies. Typical investments include direct equity real estate investments as well as mezzanine debt-related opportunities. Additionally, the funds will invest in primary commitments to underlying funds, secondary interests, and will invest in properties directly. Typical exposures are expected to be 50% underlying funds, 25% secondary interests, and 25% directs investments. The funds will invest in real estate strategies on a global basis, but will emphasize non-US strategies whereas the bulk of the exposure is in Europe.
Commonfund Natural Resources X	The objectives of Commonfund's natural resources platform are to access top-tier, access constrained managers, and to target serial commitments to its highest quality managers. Commonfund's natural resources team takes an active involvement approach to commitments seeking advisory board seats on underlying funds. The natural resources funds generally target the following exposures: Primary Commitments (40-50%, for diversification), Secondary transactions (10-20%, for j-curve mitigation), Co-Investments (10-20%, for return enhancement and fee reduction). The funds' investable universe includes partnerships that target oil and natural gas production, oilfield services, power generation and other natural resource-related industries, including energy infrastructure, mining and minerals, agriculture, clean and renewable energy, water and timber.
Aether Real Assets Fund IV	Aether focuses exclusively on providing real assets fund of fund products. Aether will target funds where management teams have operational and technical expertise. The fund of fund series seeks investments in primary sectors such as upstream oil & gas, metals & minerals, and agriculture & timber. Expected exposures are generally targeted to be 40% to oil & gas, 40% to metals & minerals, and 20% to agriculture & timber; other opportunistic investments are considered as well. Regarding oil & gas managers, Aether prefers managers that own and operate long-lived PDP reserves that implement an active short-term hedging program. Historically, geographic allocation has been 70% North America, 15% Africa and the remainder allocated to Europe, Asia, South America and Oceania. With Fund V, Aether will look to expand its investment universe to complement the primary commitments with co-investments and secondaries taking a proportionately larger allocation.

Real Assets Commitment Model

- Keys to building and maintaining a successful diversified Real Assets program:

- Creating a long-term plan to achieve the allocation.
- Diversify by Vintage Year, General Partner, and Sub-sector.
- Don't force allocations; better to wait for the best partners.

- The commitment schedule uses estimated capital calls and distributions to create a flexible roadmap to achieve a given target Real Assets allocation.

- Estimated yearly commitments needed to reach and maintain the target.
- Monitored and adjusted regularly.

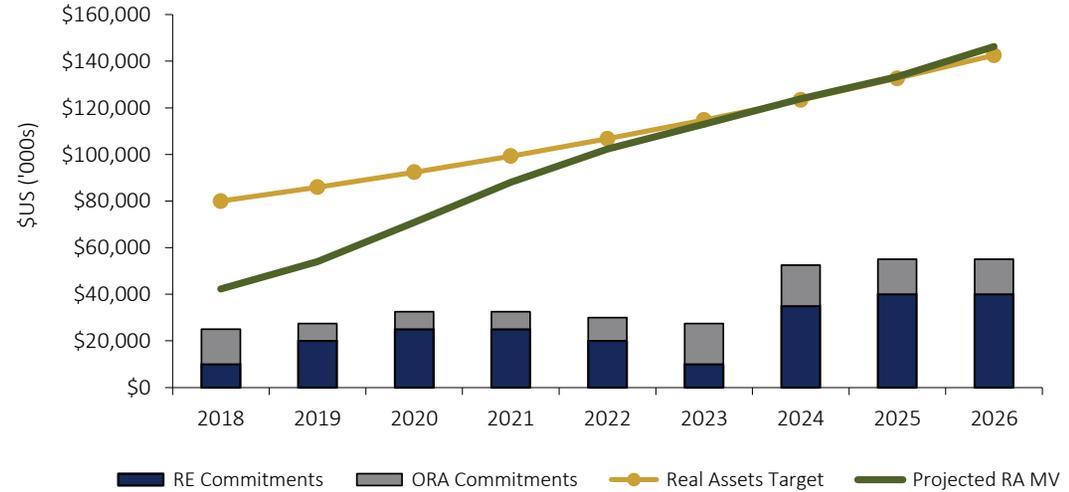
- Real Estate and Other Real Assets allocations are below target:

- Real Estate: 2.8% actual versus target of 5%
- Other Real Assets: 0.6% versus target of 2.5%

- In order to bring the allocations closer to their targeted ranges, the model suggests making a \$10 million commitment in Real Estate and \$15 million worth of commitments in Other Real Assets in 2018.

- Summit recommends using the full Real Estate budget on one commitment and splitting the \$15 million Other Real Assets commitment budget equally across two managers.

Real Assets Commitment Model
(with future commitments)



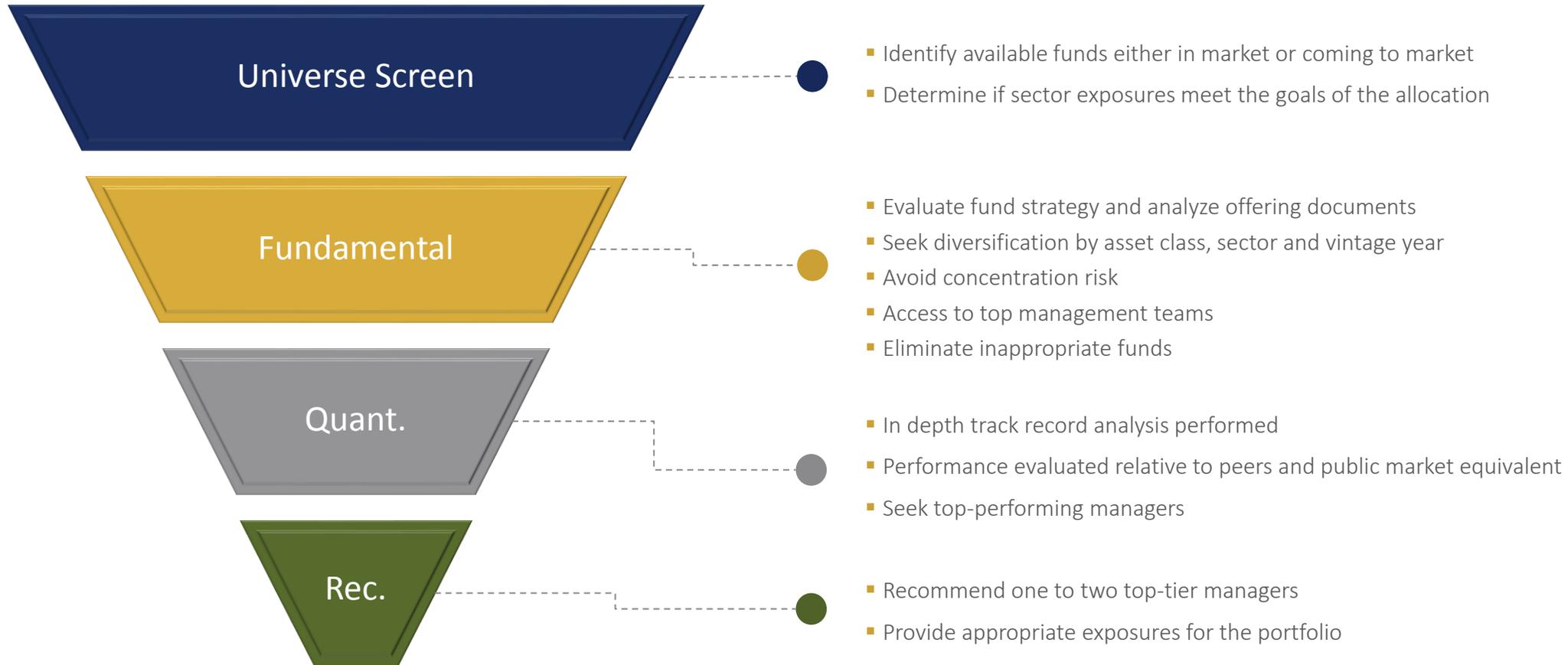
Commitment Schedule (\$ millions)							
Year	RE Comm.	ORA Comm.	Cumulative Comm.	Projected NAV (\$)	Real Assets Target (\$)	Projected NAV (%)	Real Assets Target (%)
2018	\$10.0	\$15.0	\$115	\$42	\$80	4.0%	7.5%
2019	\$20.0	\$7.5	\$143	\$54	\$86	4.7%	7.5%
2020	\$25.0	\$7.5	\$175	\$71	\$92	5.8%	7.5%
2021	\$25.0	\$7.5	\$208	\$88	\$99	6.6%	7.5%
2022	\$20.0	\$10.0	\$238	\$102	\$107	7.2%	7.5%
2023	\$10.0	\$17.5	\$265	\$113	\$115	7.4%	7.5%
2024	\$35.0	\$17.5	\$318	\$124	\$123	7.5%	7.5%
2025	\$40.0	\$15.0	\$373	\$133	\$133	7.5%	7.5%
2026	\$40.0	\$15.0	\$428	\$146	\$143	7.7%	7.5%

Executive Summary—Fund of Fund Search

- Summit has narrowed the universe of fund of fund managers down to recommending Aether Fund V and Commonfund XI for Other Real Asset commitments and Partners Group RE Secondary 2017 for the Real Estate commitment.
 - Aether and Commonfund are existing manager relationships and prior commitments are at or above expectations.
 - While Partners Group is an existing manager relationship, the Real Estate Secondaries platform is new to Howard County.
 - There is not a global fund being raised and the manager isn't sure if they will raise another global fund.
 - Summit views the real estate secondary fund as an attractive option at this point in the real estate cycle as the market opportunity for complex secondary and tail-end liquidity solutions is robust.
 - All three of the managers' strategies and targeted exposures fit well with the current market opportunity and should continue to augment the portfolio as diversification is achieved.
- While the recommendation today calls for two Other Real Assets commitments and one Real Estate, 2018 is unique in that all of Summit's top-tier Natural Resources fund of funds managers are currently in the market.
 - Summit is currently evaluating two other Natural Resources FOFs and could potentially bring a third recommendation to Howard County in the back half of 2018.
 - This commitment would use the 2019 commitment budget for Other Real Assets which would have minimal effect on the commitment model.
- To fulfill the 2018 commitment budgets, Summit recommends the following:
 - Committing \$10 million to Partners Group Real Estate Secondary 2017; doing so would satisfy the \$10 million Real Estate commitment budget for 2018.
 - Committing \$7.5 million each to Aether Real Assets Fund V and Commonfund Natural Resources XI; doing so would satisfy the full \$15 million Other Real Asset commitment budget for 2018.

Other Real Assets—Natural Resources Fund of Funds

Fund of Funds Search—Manager Selection Process



Real Assets Fund of Fund Universe

Qualitative assessment of fund-of-fund universe.

Fund Manager	Firm	Team	Strategy	Track Record	Fees	Fund Size	Commentary	Preferred Manager
Aether	↘	↑	↑	↘	→	↘	Aether is entirely dedicated to natural resources fund of funds. Strategy provides diversified real assets exposure. Beginning with ARA V, Aether will seek to opportunistically augment the portfolio by committing to secondaries and co-investments which is viewed as a positive.	✓
Aberdeen	→	↑	↑	↘	↘	↘	Strategy provides diversified real assets exposure. Strong dedicated real assets investment team is supported by a larger dedicated private equity team. Team seeks to identify inefficiencies across sub-asset classes by constructing a bottom's up portfolio with top-down thematic research.	✓
Commonfund	→	↘	↑	↘	↘	↘	Fund provides diversified real assets exposure, with a higher allocation to energy services vs. peers. The team dedicated to real assets investing is relatively small but experienced. The Firm and Natural Resources platform has fared well even in the face of a couple senior-level departures.	✓
Barings	→	↑	↑	↘	↘	↘	A new offering from Barings, the Global Real Assets Fund will seek more concentration than its competitors. A compelling feature of the new product is that a large portion of the fund will be in the form of co-investments (40-60%). The portfolio will target 60% natural resources and 40% infrastructure assets.	✓
Private Advisors	→	↘	↑	→	↘	↘	An affiliate of New York Life, Private Advisors will invest in primary natural resources and infrastructure funds and will augment the portfolio with co-investments. The fund will have an upstream energy tilt with the majority of the exposure in North America and Europe.	
GCM Grosvenor	→	↘	↘	→	→	↘	While the strategy falls within infrastructure, the fund will allocate 50% of its commitments to power generation and midstream infrastructure. Nearly all of the fund's geographic exposure will be North America and Western Europe.	
Adveq	→	→	↘	→	↘	→	Adveq's natural resources fund specializes in global, large scale agricultural and timber direct investments with an emphasis on Australian investments. Targeted sectors do not meet the desired exposures and is less attractive.	

Excellent	↑
Good	↘
Satisfactory	→
Less Attractive	↘

ARA Real Assets V

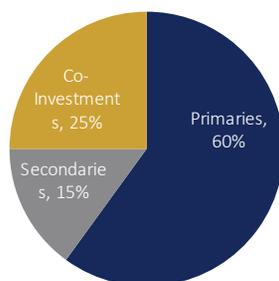
Overview

- Aether Investment Partners (Aether) was founded to exclusively provide real assets fund of fund products.
- Through their consulting and fund of funds backgrounds, the Principals have created a broad and deep fund sourcing platform which includes fund managers, investors, placement agents, non-traditional industry participants, and trade publications and conferences.
- Aether will target funds where management teams have operational and technical expertise. Regarding oil and gas managers, preference will be toward acquisition of PDP reserves with active short term hedging.
- Favored managers will be those that do not rely on high leverage nor are dependent on technological innovation to generate returns.
- Historically, geographic allocation has been 70% North America, 15% Africa and the remainder allocated to Europe, Asia, South America and Oceania.
- The strategy will not allocate to private real estate partnerships.

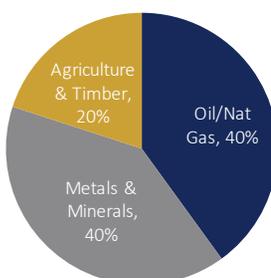
Expected Portfolio Characteristics

Asset Class	Real Assets	Target Size Min	8% of commitments
Primary Strategy	Real Assets FOF	Target Size Max	12% of commitments
Positions	10-15		

Fund Exposure



Strategy Exposure



Aether Investment Partners

Firm

Founded	2008
Primary Office	Denver, CO
Ownership	Northern Lights/Treasury Group (ASX: TRG)
Assets Managed	\$1.2 billion (commitments)
Strategies Covered	Diversified Private Real Assets
Employees	10

Investment Team

Total Professionals	7
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Key Personnel	Title	Joined Firm
Sean Goodrich	Managing Director	2008
Troy Schell	Managing Director	2008
Jon Hendrickson	Investment Director	2010
David Rhoades	Chief Operating Officer	2011

Fees & Key Terms

Annual Mgmt Fee	0.85% of commitments for 5 years, reduced by 15% ea. year thereafter. Average 0.63% over 12 yrs.
Carried Interest	5% (4% for first closers)
Preferred Return	7%
Investment Period	2 years
Fund Term	12 years
GP Commitment	1%

Investment Information

Target Size	\$350 million
Commitments	-
Minimum	\$1 million
Expected First Close	End of June 2018

ARA Real Assets V

Observations

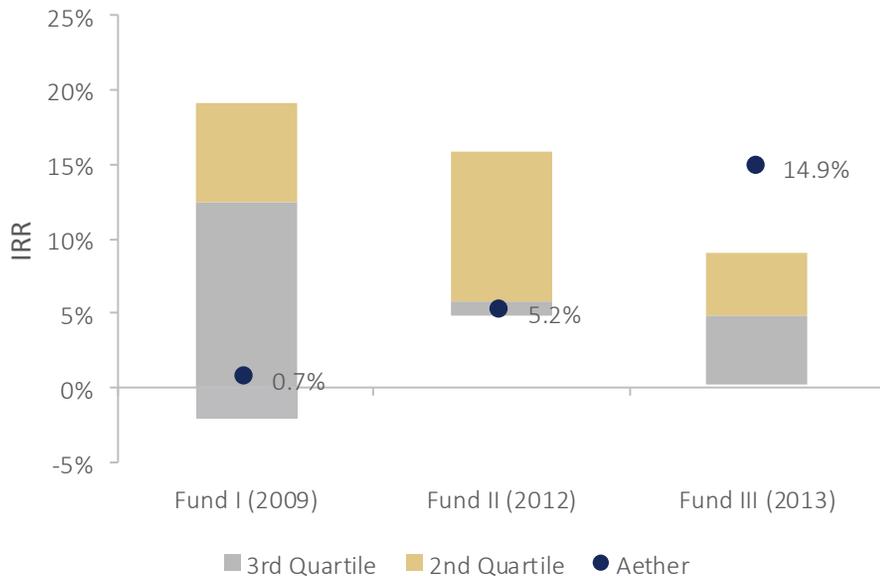
- Similar to commodity prices over the past 10 years, Aether's performance has been volatile.
- Fund V will take a more concentrated approach to portfolio construction to potentially have more exposure to operational improvements rather than commodity price movement.
- The team aims to generate performance that is not dependent on excessive leverage or technological innovations.
- Aether takes an opportunistic approach to sector allocations in an attempt to strategically allocate during asset class volatility.

Aether Investment Partners

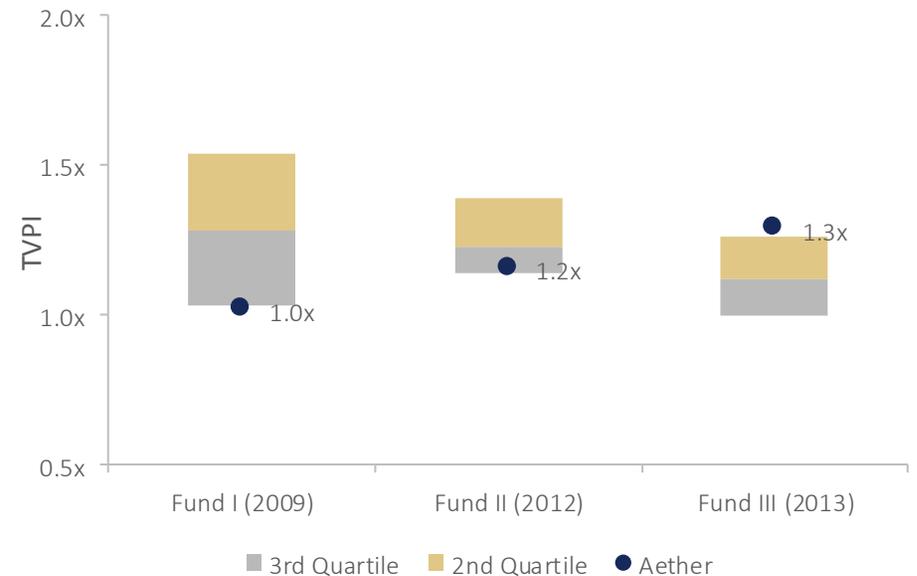
Track Record (\$ Millions)

Fund	Vintage Year	Fund Size	Invested Capital	Realized Value	Unrealized Value	Net IRR	Net TVPI
Fund I	2009	127.0	135.5	72.9	62.6	0.7%	1.0x
Fund II	2012	303.0	281.2	78.7	202.5	5.2%	1.2x
Fund III	2013	168.8	226.3	2.3	224.0	14.9%	1.3x
Fund IV	2016	257.2	95.9	0.0	95.9	n/a	n/a

IRR Vintage Analysis



TVPI Vintage Analysis



Performance data as of 9/30/17. Vintage comparison uses most recently available Pitchbook Energy, Timber and Mining data.

Natural Resources Partners XI

Commonfund

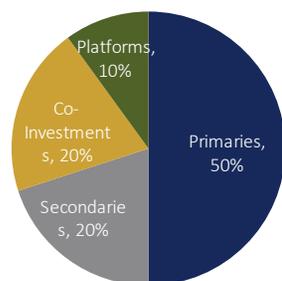
Overview

- Commonfund is a large, global financial services firm with offices in Connecticut, New York, San Francisco, London and Beijing.
- The strategy of CNRXI is to build a concentrated primary portfolio with an emphasis on sector specialists. Additionally, Commonfund will target secondaries, aged or seasoned primaries, co-investments and operating platforms.
- Fund XI will target the following sectors: upstream oil & gas, services (energy, power, agribusiness), infrastructure, mining, alternative energy, agriculture, and timber.
- The team has a preference for small/mid-cap assets with low exploration and development costs using no or modest leverage.
- The fund will commit to funds investing around the globe with a target North American allocation of 60-75%, 15-25% to Europe and a 5-15% to other.

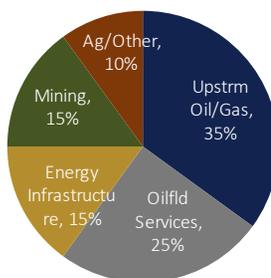
Expected Portfolio Characteristics

Asset Class	Real Assets	Target Size Min	~\$5 million
Primary Strategy	Real Assets FOF	Target Size Max	~\$20 million
Positions	10-20		

Fund Exposure



Strategy Exposure



Firm

Founded	1988
Primary Office	Wilton, CT
Ownership	Subsidiary of Commonfund Nonprofit
Assets Managed	\$24.9 billion
Strategies Covered	PE, VC, Nat Resources, Multi-Asset
Employees	40

Investment Team

Strategy Professionals	5
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Key Personnel	Title	Joined Firm
Peter Burns	President & CEO	2000
Ethan Levine	Managing Director	2010
Dan Connell	Associate Director	2016

Fees & Key Terms

Annual Mgmt Fee	0.58% on committed (estimated avg. fee)
Carried Interest	5%
Preferred Return	8%
Investment Period	3 years
Fund Term	12 years with one three-year extension
GP Commitment	tbd

Investment Information

Target Size	\$250-\$400 million
Commitments	\$66 million
Minimum	\$1 million
Expected Final Close	September-2018

Natural Resources Partners XI

Commonfund

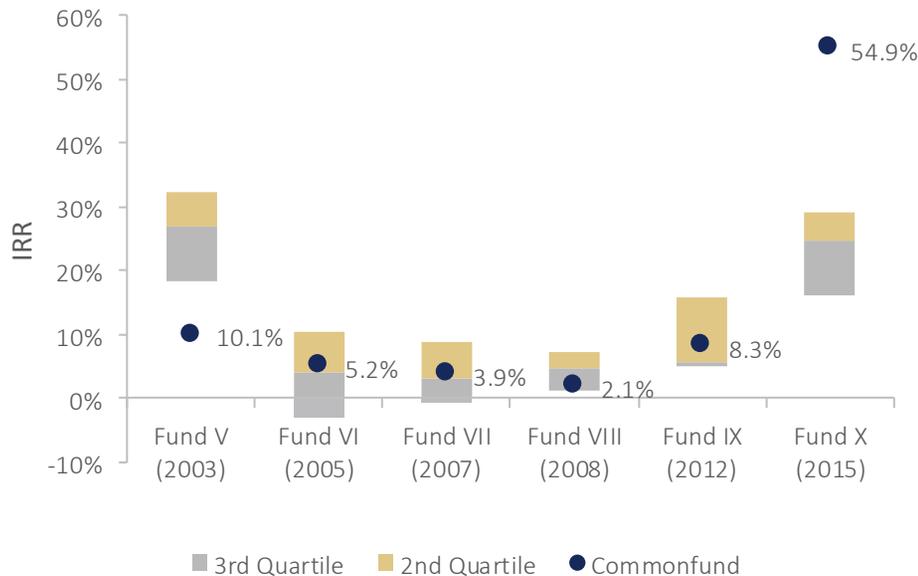
Observations

- Prior Natural Resources funds have produced mixed results when compared to a composite of similar vintage private energy, timber and mining funds.
- The latest two funds have not had any full exits and as such their performance has either suffered or isn't material.
- On a TVPI basis, Fund V is a bottom quartile-performer while Funds VIII and IX are below median. Fund V's performance is largely locked in given its age and small amount of unrealized value, however Funds VIII and IX have a large portion of the committed capital still invested and performance could improve as underlying investments are exited in a healthier commodity price environment.
- Funds VI and VII as well as Fund X currently, are above median performers.

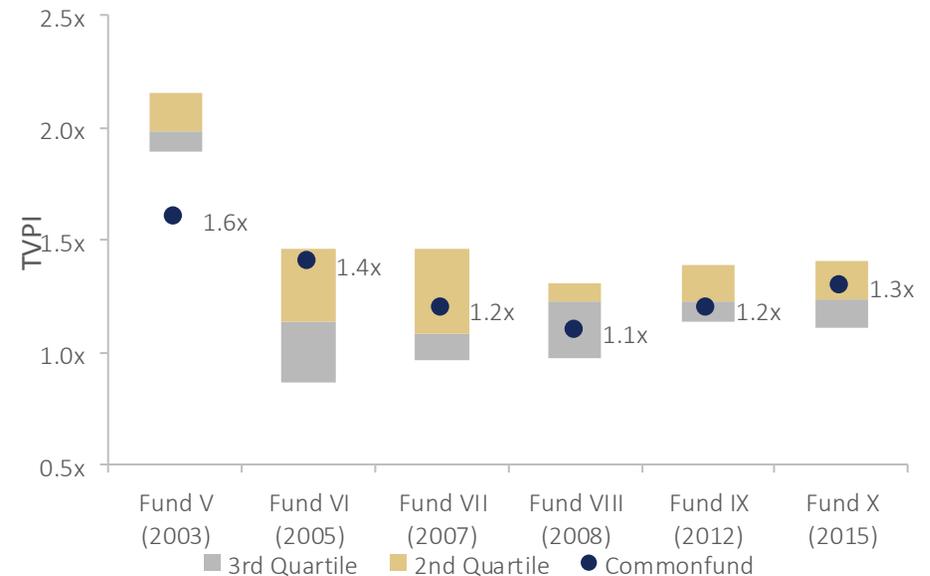
Track Record (\$ Millions)

Fund	Vintage Year	Fund Size	Invested Capital	Realized Value	Unrealized Value	Net IRR	Net TVPI
Fund V	2003	252.8	249.0	355.2	53.8	10.1%	1.6x
Fund VI	2005	302.2	295.7	287.6	118.3	5.2%	1.4x
Fund VII	2007	505.0	489.3	349.8	242.1	3.9%	1.2x
Fund VIII	2008	752.2	697.0	272.2	485.0	2.1%	1.1x
Fund IX	2012	507.0	365.0	20.0	417.5	8.3%	1.2x
Fund X	2015	252.7	63.2	7.9	73.1	54.9%	1.3x

IRR Vintage Analysis



TVPI Vintage Analysis



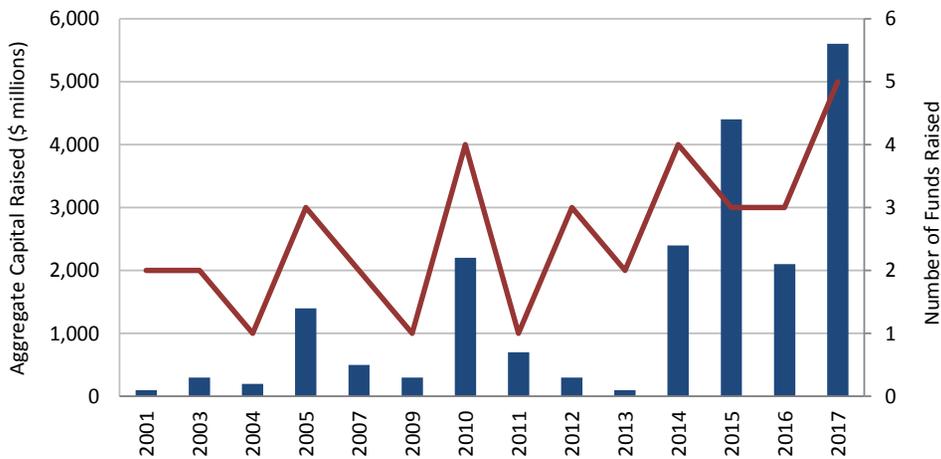
Performance data as of 9/30/17. Vintage comparison uses most recently available Pitchbook Energy, Timber and Mining data.

Real Estate—Real Estate Secondaries

Real Estate Secondaries Overview

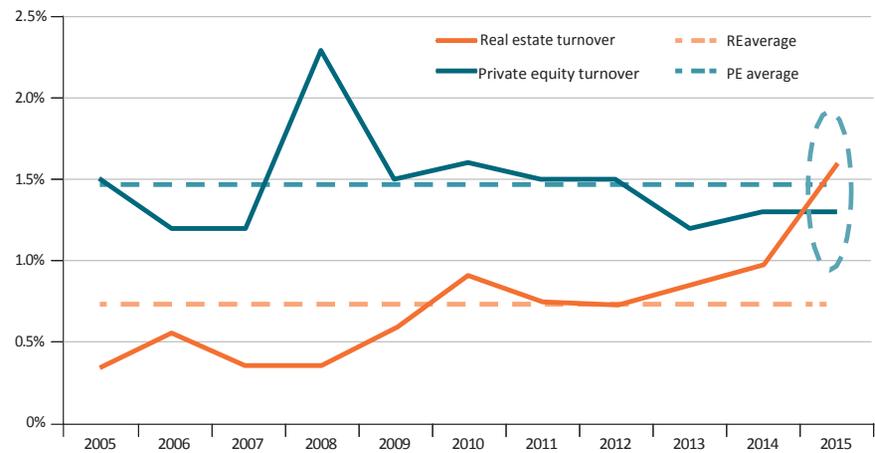
- The real estate secondaries market continues to grow and mature
 - Fundraising as well as deal volume has increased substantially over the last several years
 - Primarily driven by:
 - Institutions actively managing real estate portfolios
 - Institutions seeking liquidity and desire to trim the number of GPs/line items
 - Large amounts of pre-GFC funds in need of liquidity solutions
 - Regulatory pressure on banks and other financial institutions
- Turnover ratios (annual transaction volume/outstanding NAV) have been on an upward trajectory post GFC highlighting a more widespread acceptance of the secondaries market as an effective portfolio management tool
 - Expected to continue to drive robust transaction volume over the next several years

Real Estate Secondaries Fundraising History



Source: Preqin

Real Estate Turnover Ratios, 2005-2015



Source: Landmark Partners

Real Estate Secondaries Fund Comparison

	Partners Group	Landmark Partners	Metropolitan Real Estate (Carlyle)
Current Product	RE Secondary 2017	Real Estate Fund VIII	Secondaries II
Fund Size	\$3 billion hard cap	\$3.3 billion	Raising Secondaries II and Co-Investment II side-by-side as the "Program." The Program target is \$1 billion (~\$750M Secondaries II and ~\$250M Co-Inv. II)
Closings	Closed on \$2.6B; Final Close 4Q18	Not in market; held final close 1Q18	Closed on \$615M across both strategies; Final 3Q18
Strategy	Global real estate secondaries. Tail-end liquidity solutions, mid-sized portfolios, and high conviction individual assets.	Acquire interests in existing funds, partnerships and other structured entities.	Global secondaries with option to invest in co-Investments through MREP Co-Investments Fund II. Focus is on smaller well-seasoned funds.
Fees	Sliding scale depending on size of commitment (1.2% if > \$20M; 1.3% if < \$10M). Fee charged on committed; fee is reduced by 10% each year after the 5 th anniversary of final close. Plus additional one-time organizational charge.	Years 1-4, 1% of committed capital; thereafter 1% of reported value.	1% on commitment during inv. Period; thereafter 1% on net invested capital and unfunded commitments to investments
Carry	10% after an 8% pref.	12% after an 8% pref.	10% after an 8% pref.
GP Commitment	Minimum of 1%	1%	1%
Track Record	<p>Secondary 2009: 10.0% Net IRR, 1.5x Net MOI</p> <p>Secondary 2013: 19.7% Net IRR, 1.4x Net MOI</p>	<p>Fund I (1996): 8.8% Net IRR, 1.3x Net MOI Fund II (1997): 15.9% Net IRR, 1.4x Net MOI Fund III (2000): not reported Fund IV (2001): 19.5% Net IRR, 1.6x Net MOI Fund V (2005): not reported, 1.0x Net MOI Fund VI (2010): 20% Net IRR, 1.6x Net MOI Fund VII (2014): 21.2% Net IRR, 1.2x Net MOI</p>	<p>Secondaries Fund I (2014): 28.8% Net IRR, 1.2x Net MOI</p>

Real Estate Secondary 2017

Partners Group

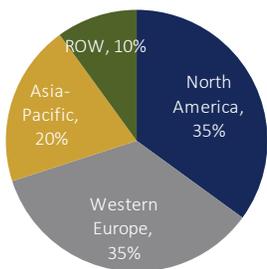
Overview

- PG was founded in 1996 by Marcel Erni, Alfred Ganter, and Urs Wietlisbach, initially to focus on private equity investing, but has since expanded its operations to include private equity, private debt, private real estate, and private infrastructure. In 2007, the firm acquired the discretionary real estate asset management business from Pension Consulting Alliance, which established the firm's private real estate operation.
- Partners Group is launching its third Real Estate Secondary fund. RE secondary deal flow has grown substantially as the majority of funds raised in the mid-to-late 2000s are in need of liquidity solutions. The Fund is expected to benefit from Partners Group's large, global presence in terms of sourcing and in-house structuring team which will provide custom structured solutions to sellers.
- The Fund is expected to engage in 30-40 transactions involving 50-60 funds with exposure to over 500 properties, globally. The Fund will focus on mid-cap transactions due to the large opportunity set and higher value creation potential. Regionally, Partners Group is anticipating 25-40% of the Fund to be allocated to North America, 25-40% Western Europe, 15-25% Asia-Pacific, and 5-10% Rest of the World. Up to 20% of the Fund may be invested in direct secondary transactions.
- RES 2017 will target the following transactions: (1) Tail-end liquidity solutions – Pre-Great Financial Crisis vintage funds are under pressure to liquidate, and thus, the team benefits from sellers looking to spinout assets from existing programs or from fatigued investors looking to divest assets or fund interests with extended terms. (2) Mid-sized portfolios – Acquire sub-sets of select positions from larger portfolios by working with the firm's internal structuring team to create custom solutions for sellers. (3) High conviction interests – Acquire concentrated sets of high conviction interests where the team is very familiar with the sponsor and underlying assets.
- Based on the opportunity set available, the team anticipates that 40% of transactions will be tail-end liquidity solutions, 30% in mid-sized portfolios, and 30% in high conviction interests.

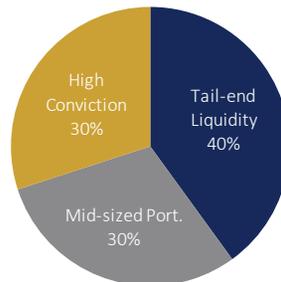
Expected Portfolio Characteristics

Asset Class	Real Assets	Target Size Min	\$15 million
Primary Strategy	Real Estate - FOF	Target Size Max	\$250 million
Average Ownership	Control	Positions	30-40
Average Debt	n/a		

Geographic Exposure



Transaction Type



Firm

Founded	1996 (firm); 2007 (real estate group)
Primary Office	Denver, CO
Ownership	Public (SIX Swiss Exchange: PGHN)
Assets Managed	\$74 billion (firm); \$13 billion (Private RE)
Strategies Covered	PE, PERE, Private Infra., Private Debt
Employees	1,000+
Diversity Status	n/a

Investment Team

Total Professionals (Private RE)	>50
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Key Personnel	Title	Joined Firm
Marc Weiss	Partner	2007
Pamela Alsterlind	Partner	2007
Claude Angeloz	Partner	2000
Fabian Neuenschwander	Managing Director	2007
Stefan Lempen	Managing Director	2002

Fees & Key Terms

Annual Mgmt Fee	Sliding scale depending LP size: \$10M to \$20M=1.25%; \$20M to \$50M =1.20%. Add'l 0.25% is charged on actively managed assets. Fees reduced by 10% p.a. following the 5th anniversary of final close. No fees charged after the 10th yr. One-time organizational fee between 0.15% and 0.75% depending on size.
Carried Interest	10% for non-actively managed assets; 20% for actively managed assets.
Preferred Return	8%
Investment Period	4 yrs from final close w/ one 1-yr ext.
Fund Term	10 yrs from final close w/ three 1-yr exts.
GP Commitment	minimum of 1% of total commitments

Investment Information

Target Size	\$3 billion (hard cap)
Commitments	\$2.6 billion
Minimum	\$10 million
Expected Close Date	4Q18

Real Estate Secondary 2017

Partners Group

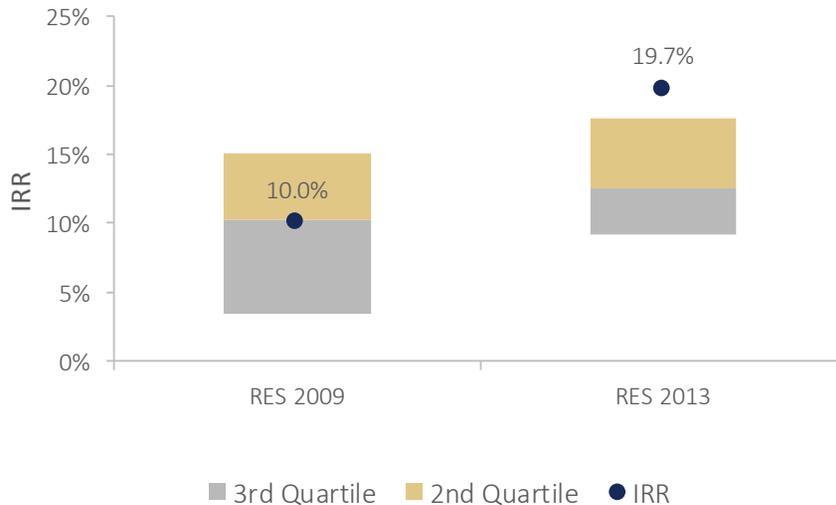
Observations

- In the two prior secondary funds, Partners Group has invested \$2.6 billion of equity across 106 investments. Seven investments are in both Real Estate Secondary 2009 and Real Estate Secondary 2013.
- Of the 65 deals completed in Real Estate Secondary 2009, 7 have been fully realized and 42 have been partially realized. While no investments in Real Estate Secondary 2013 have been fully realized, 20 have been partially realized.
- Real Estate Secondary 2009 has performed in-line with the Pitchbook median on a net IRR basis and is a top-quartile performing fund on a net TVPI basis. Partners Group did not use a subscription facility for this Fund which has hurt the Fund's IRR relative to peers. Additionally, most of the Fund is unrealized and performance should increase as the Fund exits more investments.
- Real Estate Secondary 2013 is performing above median on a net MOI basis and is a top-quartile fund when comparing IRRs of similar vintage real estate funds.

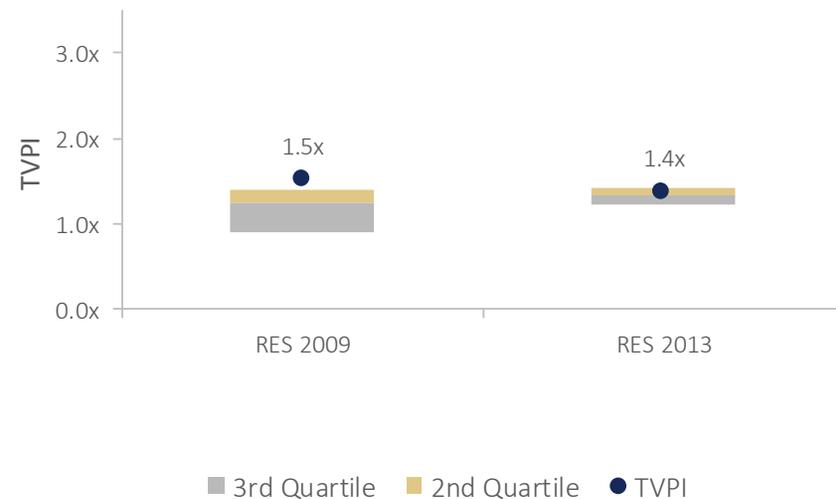
Track Record (\$ Millions)

Fund	Vintage Year	Fund Size	Invested Capital	Realized Value	Unrealized Value	Net IRR	Net TVPI
RES 2009	2009	1,421	1,343	1,053	985	10.0%	1.5
RES 2013	2013	1,938	1,300	392	1,400	19.7%	1.4

IRR Vintage Analysis



TVPI Vintage Analysis



Vintage comparison uses Pitchbook All Real Estate data as of 12/31/17
 Performance metrics shows as of 12/31/17 for the USD A sleeves

Disclosures

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