

#### RETIREMENT BOARD MEETING SECOND MONTHLY MEETING 8:30 a.m.

October 23, 2013

Retirement Board Conference Room The Willows Office Park 1355 Willow Way, Suite 221 Concord, California

## THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

- 1. Pledge of Allegiance.
- 2. Accept comments from the public.
- 3. Approve the minutes from the September 4 and 11, 2013 meetings.
- 4. Update from investment consultant regarding the finalists for the International Value Equity Manager search.
- 5. Manager presentations:

8:45 - 9:30 9:35 - 10:20	MFS Investment Management Schroders Investment Manager
10:20 - 10:35	Break
10:35 - 11:20	Pyrford International Ltd.

6. Consider and take possible action on International Value Equity Manager.

#### CLOSED SESSION

\*\* 7. The Board will go into closed session under Gov. Code Section 54957 to consider recommendations from the Medical Advisor and/or staff regarding the following disability retirement applications:

	<u>Member</u>	Type Sought	<b>Recommendation</b>
a.	Marie Espaniola	Non Service Connected	Non Service Connected
b.	Lisa Beaty	Service Connected	Service Connected

8. The Board will continue in closed session under Gov. Code Section 54959 to consider recommendation from the Hearing Officer regarding the disability application of Shirley Guyer.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

#### **OPEN SESSION**

- 9. Presentation by Transwestern on the Willows Office Building.
- 10. Consider and take possible action regarding repairs and upgrades to the Willows Office Building as recommended by Transwestern.
- 11. Miscellaneous
  - a. Staff Report
  - b. Outside Professionals' Report
  - c. Trustees' comments

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.



#### **RETIREMENT BOARD MEETING MINUTES**

# REGULAR BOARD MEETING 9:00 a.m.

September 4, 2013

Retirement Board Conference Room The Willows Office Park 1355 Willow Way, Suite 221 Concord, California

- Present: Debora Allen, Richard Cabral, Scott Gordon, Brian Hast, Jerry Holcombe, Louie Kroll, Karen Mitchoff, John Phillips, Gabe Rodrigues, Jerry Telles, and Rusty Watts
- Absent: None
- Staff: Marilyn Leedom, Retirement Chief Executive Officer; Kurt Schneider, Retirement Deputy Chief Executive Officer; Timothy Price, Retirement Chief Investment Officer; Karen Levy, Retirement General Counsel; Vickie Kaplan, Retirement Accounting Manager; and Christina Dunn, Retirement Administration Manager

Outside Professional Support:	Representing:
Harvey Leiderman	Reed Smith LLP

#### 1. Pledge of Allegiance

Hast led all in the *Pledge of Allegiance*.

#### 2. Accept comments from the public

No members of the public offered comment.

#### 3. Approval of Minutes

It was **M/S/C** to approve the minutes of the June 26, 2013 meeting. (Yes: Cabral, Hast, Holcombe Mitchoff, Phillips, Rodrigues, Telles and Watts. Abs.: Gordon)

Allen was present for subsequent discussion and voting.

It was M/S/C to approve the minutes of the July 10, 2013 meeting with an amendment to add Rebecca Byrnes, County Counsel, as an Outside Professional in attendance. (Yes: Allen, Cabral, Gordon, Hast, Mitchoff, Phillips, Rodrigues, Telles and Watts)

#### 4. <u>Routine Items</u>

It was **M/S/C** to approve the routine items of the September 4, 2013 Board meeting. (Yes: Allen, Cabral, Gordon, Hast, Mitchoff, Phillips, Rodrigues, Telles and Watts)

#### **CLOSED SESSION**

The Board moved into closed session pursuant to Govt. Code Section 54957, 54956.9(a) and 54956.9(b).

The Board moved into open session.

- 5. It was M/S/C to accept the Medical Advisor's recommendation and grant the service connected disability retirement for Julie Raner. (Yes: Allen, Cabral, Gordon, Hast, Mitchoff, Phillips, Rodrigues, Telles and Watts)
- **6.** There was no reportable action related to Govt. Code Section 54956.9(a).
- 7. There was no reportable action related to Govt. Code Section 54956.9(b).

#### 8. <u>Consider and take possible action to direct staff regarding pay items beyond base pay for</u> <u>PEPRA tiers</u>

Levy gave an update regarding possible legislation and CalPERS' current implementation of "pensionable compensation" under the Public Employees' Pension Reform Act of 2013 ("PEPRA") statute.

Levy reported that, as directed by the Board, CCCERA staff met with employers and interested parties to discuss specific pay items beyond base pay and is recommending some modifications to the preliminary analysis and pay item spreadsheets presented to the Board in April based on information obtained through this process.

After a lengthy discussion, it was M/S to exclude bilingual pay differential from pensionable compensation.

In public comment, <u>Rollie Katz</u>, Local 1, urged the Board to continue to include bilingual pay as pensionable compensation.

In public comment, <u>Joe Young</u>, member of the public, asked the Board to be conservative and include only base pay in pensionable compensation.

In public comment, <u>Bill Cullen</u>, retiree, stated that bilingual pay differential should be included in base pay. He also stated that everyone who is eligible to receive any differentials beyond base pay should have the differentials included in pensionable compensation and not be penalized.

After discussion, a substitute motion was **M/S** to use base pay only for pensionable compensation for PEPRA members and to exclude all other special pay items.

The original motion and second were withdrawn.

After a lengthy discussion, the question was called.

It was M/S/C to call for the question. (Yes: Allen, Gordon, Hast, Mitchoff, Phillips, Telles and Watts. No: Cabral and Rodrigues)

It was **M/S/C** to use base pay only for purposes of pensionable compensation for PEPRA members and to exclude all other special compensation. (Yes: Allen, Gordon, Mitchoff, Phillips and Watts. No: Cabral, Rodrigues and Telles. Abs.: Hast). Hast noted that his reason for abstaining is that he agrees with making it more simplistic for employers and employees, but he feels it provides a deterrent to employees and the services they provide and would hope in the future they would eliminate differentials and create different classifications which would include the differentials in the employee's base salaries.

Hast announced that the vote would be taken and recorded again after Public Comment.

In public comment, <u>Vince Wells</u>, President Local 1230, urged the Board to consider the reason why the differentials were put into place and wanted to remind the Board that differentials benefit the employer by saving the employer money.

In public comment, <u>Joe Young</u>, member of the public, expressed his desire for getting back to base pay only since that is what the public wants and what they voted for.

In public comment, <u>Rollie Katz</u>, Local 1, stated he doesn't remember the public voting on this matter. He doesn't feel employers are going to agree to pay all employees in a classification an extra 10% because some of the employees deserve it. He also stated he thinks it's a mistake to think that the base salary matter will be resolved in negotiations.

In public comment, <u>Steve Anderson</u>, board member of a special district in the County but speaking as a private citizen, stated that since we are talking about new employees he does not think there is anything being taken away. He stated that the survival of many special districts is predicated on what the Board decides since including additional pay items in pensionable compensation could make the difference between closing a fire station or not.

In public comment, <u>Alex Aliferis</u>, Contra Costa Taxpayers Association, urged the Board to continue with pension reform. He feels people are leaving California due to the high cost of living. Continued reform will help the state.

It was **M/S/C** to use base pay only for purposes of pensionable compensation for PEPRA members and to exclude all other special compensation beyond base pay. (Yes: Allen, Gordon, Mitchoff, Phillips and Watts. No: Cabral, Rodrigues and Telles. Abs.: Hast).

Levy asked for clarification on two pay items for the Moraga-Orinda Fire District. The Board clarified that FLSA Pay and Fire Retirement Allotment would be excluded from pensionable compensation because they are beyond base pay and directed staff to notify the Moraga Orinda Fire District and all employers of the Board's determination.

#### 9. <u>Consider and take possible action to direct staff regarding pay items used to enhance the final</u> retirement benefit

Schneider reported the Board had requested information regarding certain pay items which were the focus of recent media reports, including on-call pay reportedly paid to members who volunteered to work additional on-call hours during their final compensation period and additional on-call pay reportedly paid to physicians who did not provide on-call services for the time paid. He reviewed his memo on the compensation policy, pay items and compensation enhancements.

Schneider reviewed an example of a compensation enhancement using on-call pay. Leiderman stated it would not be known whether these types of enhancements to compensation can be revisited by the Board until we know the outcome of the AB 197 litigation.

Mitchoff was no longer present for subsequent discussion and voting.

There was a lengthy discussion on on-call pay, call-back pay and spiking.

It was **M/S/C** to direct staff to calculate this member's retirement benefit without on-call pay and send a letter to the member explaining that CCCERA is reviewing the on-call pay further. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Phillips, Telles and Watts. Abs.: Rodrigues)

In public comment, <u>Rollie Katz</u>, Local 1, stated that on-call pay has always been compensable and now it is an item of concern. He doesn't think the Board should deny the on-call pay as pensionable to the member used in the example.

There was further discussion regarding voluntary and mandatory on-call pay.

In public comment, <u>Rollie Katz</u>, Local 1, asked the Board to be careful comparing what they consider voluntary to what the employers and the unions consider as voluntary.

# 10. <u>Consider and take possible action to cause an election to be held to fill the vacancy in the seventh member seat</u>

Leedom reported the Board has the authority to call an election to fill the vacancy of the seventh (Safety) member seat. The nomination period would be from September 30 through October 25, 2013. The ballots will be mailed on December  $23^{rd}$  with an election on January 21, 2014.

It was M/S/C to hold an election at the earliest possible date in order to fill the vacancy in the seventh safety member seat. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Phillips, Rodrigues, Telles and Watts)

#### 11. Consider and take possible action regarding the investment consultant for CCCERA

Price reported the Board Chair requested that staff prepare a memo with options for the Board to consider regarding how to respond to personnel changes recently announced by Milliman.

The Board discussed different options including implementing a policy to review investment consultants, the possibility of having a separate investment consultant and a separate real estate consultant, and the amount of time needed to issue an RFP.

The Board directed staff to conduct an on-site visit to the Milliman office.

#### 12. Presentation of Administrative expenses: Budget vs. Actual as of June 30, 2013

Leedom distributed a detailed report of the budget, noting we are currently at 75% of budget. She will present the 2014 budget for approval at a meeting in November or December.

It was M/S/C to accept the Budget vs. Actual Report as of June 30, 2013. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Phillips, Rodrigues, Telles and Watts).

#### 13. <u>SACRS Voting Proxy</u>

It was **M/S/C** to appoint Jerry Telles as CCCERA's Voting Delegate and Gabe Rodrigues as the Alternate Voting Delegate at the upcoming SACRS Conference. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Phillips, Rodrigues, Telles and Watts).

Telles was no longer present for subsequent discussion and voting.

#### 14. <u>Consider and take possible action to reschedule the October 9, 2013 Board meeting</u>

It was **M/S/C** to reschedule the October 9, 2013 meeting to Wednesday, October 2, 2013. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Kroll, Phillips, Rodrigues, and Watts)

#### 15. <u>Conference Seminar Attendance</u>

**a.** It was **M/S/C** to authorize the attendance of 2 Board members at the Investment Fundamentals, PIMCO, September 19-20, 2013, Newport Beach, CA. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Kroll, Phillips, Rodrigues and Watts)

- **b.** It was **M/S/C** to authorize the attendance of 1 Board member at the Fall Conference, CRCEA, October 21-23, 2013, Fresno, CA. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Kroll, Phillips, Rodrigues and Watts)
- **c.** It was **M/S/C** to authorize the attendance of all Board members and all appropriate staff members at the Fall Conference, SACRS, November 12-15, 2013, Indian Wells, CA. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Kroll, Phillips, Rodrigues and Watts)

### 16. <u>Miscellaneous</u>

(a) Staff Report –

<u>Leedom</u> reported the agenda packets including the quarterly information for the September 11, 2013 meeting have been distributed to Board members.

She noted a dry rot problem with The Willows Office building. The property manager will present information to the Board at a future meeting.

Leedom reported Brown Armstrong will begin training the accounting staff on the new GASB reporting requirements.

<u>Schneider</u> reported progress has been made on the transition from the old retirement software system to the new retirement software system.

<u>Price</u> reported Long Wharf is selling a number of properties in Fund III so there will be some returns coming in soon.

He reported at the next meeting Paulson will be presenting on a possible real estate investment opportunity.

He reported he will be attending an on-site at Aether in Denver on October 28 and 29, 2013.

(b) Outside Professionals' Report -

None

(c) Trustees' comments -

<u>Phillips</u> reported he attended the Harvard course.

<u>Cabral</u> corrected a comment from the previous meeting noting Rebecca Byrnes has never been a County employee and does not collect a CCCERA pension.

<u>Rodrigues</u> reported some DSA members feel the Board is a pro-employer board and not supportive of employees. He questioned if there was a way to get information to members informing them why decisions are made by the Board.

It was M/S/C to adjourn the meeting. (Yes: Allen, Cabral, Gordon, Hast, Holcombe, Kroll, Phillips, Rodrigues, and Watts)

Brian Hast, Chairman



## **RETIREMENT BOARD MEETING MINUTES**

SECOND MONTHLY BOARD MEETING 9:00 a.m.

Retirement Board Conference Room The Willows Office Park 1355 Willow Way, Suite 221 Concord, California

September 11, 2013

Present: Brice Bins, Scott Gordon, Brian Hast, Jerry Holcombe, Louie Kroll, Karen Mitchoff, John Phillips, Gabe Rodrigues and Jerry Telles

Absent: Debora Allen and Richard Cabral

Staff: Marilyn Leedom, Retirement Chief Executive Officer; Timothy Price, Retirement Chief Investment Officer; and Christina Dunn, Retirement Administration Manager

Outside Professional Support:	Representing:
Bob Helliesen	Milliman
Marty Dirks	Milliman

#### 1. <u>Pledge of Allegiance</u>

Hast led all in the *Pledge of Allegiance*.

#### 2. Accept comments from the public

No members of the public offered comment.

#### 3. Review of total portfolio performance

Dirks discussed the key points of the quarterly report noting the CCCERA Total Fund returned 0.3% for the second quarter. He stated the CCCERA Total Fund performance has been first quartile over the trailing one through ten year periods. He also reviewed the cumulative performance statistics for all funds.

It was M/S/C to accept the Quarterly Report presented by Milliman. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)

#### a. Consideration of any managers already under review or to be placed under review

Dirks reported on the managers on the Watch List.

#### b. Consideration of any changes in allocations to managers

There were no changes in allocations to managers.

#### 4. Consider and take possible action on the International Value Equity Semi-Finalist Report

Dirks gave an overview of the search process to replace GMO as the International Value Equity Manager. He reported six firms were selected as semi-finalist candidates.

The Board discussed the availability of video conferencing for the initial interview.

After a discussion on the pros and cons of each of the semi-finalist managers, it was M/S/C to interview MFS Investment Management, Pyrford International and Schroders Investment Management. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)

The interviews will be held at the October 23, 2013 Board meeting. It was noted that the October 23, 2013 Board meeting will start at 8:30 am.

#### 5. <u>Consider and take possible action on the Small to Mid-cap Private Equity Semi-Finalist</u> <u>Report</u>

Dirks gave an overview of the search process to increase the allocation to private equity investments. He reported seven firms were selected as semi-finalist candidates.

After a discussion on the pros and cons of each of the semi-finalist managers, it was **M/S/C** to interview Bay Hills, Horsley Bridge, Sigular Guff and J.P. Morgan. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)

The interviews will be held at a special meeting on October 30, 2013.

#### 6. <u>Presentation from Paulson & Co. Inc. Real Estate Fund II</u> – Mike Barr, Stephanie Schulman

Price gave an overview of the background of investing in additional distressed real estate funds noting there is a \$25 million allocation still available to be committed to this fund.

Barr gave an overview of the firm and a summary of the Real Estate Fund II noting that this fund is focused on residential land. He reviewed the terms for the Real Estate Fund II. The expected final close is the end of October to the beginning of November.

#### 7. <u>Consider and take possible action on staff recommendation regarding Paulson & Co, Inc. Real</u> <u>Estate Fund II</u>

After a lengthy discussion, it was **M/S/C** to invest a target of \$25 million, but no less than \$20 million, to Paulson and Co, Inc. Real Estate Fund II subject to due diligence, on-site visits, legal review and authorize the CEO to sign the contracts. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)

#### 8. <u>Conference Seminar Attendance</u>

- **a.** It was **M/S/C** to authorize the attendance of 1 Board member at the Trustees' Roundtable, CALAPRS, September 13, 2013, San Jose, CA. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)
- **b.** There was no action taken on the 23<sup>rd</sup> Annual Northern California Public Retirement Seminar, The Public Retirement Journal, September 26, 2013, Sacramento, CA.

#### 9. Miscellaneous

(a) Staff Report –

<u>Leedom</u> reported she will bring investment guidelines back to be updated.

She is planning a fiduciary education presentation at the October 2, 2013 meeting.

She reported one of CCCERA's investments' is the Willows Office Park and on October 23<sup>rd</sup> both the leasing agent and the property manager will give updates on The Willows.

She and Schneider are meeting with the East County Fire finance committee and other employers regarding the drop in the assumed rate and the changes to the contribution rates.

Leedom informed the Board that if they have a new iPad or an existing iPad and want to work with IT on setting up dropbox to please let staff know.

Price noted that he will be scheduling a cash overlay educational presentation within the next three months.

<u>Price</u> reported Invesco came back on Fund III asking for a revision to the guidelines from a 25% cap to a 30% cap. He is going visit one of their construction projects to review and report back. He will also visit Artisan.

Price received a notice from Lord Abbett that their Chief Compliance Officer is retiring at the end of October.

(b) Outside Professionals' Report -

None

(c) Trustees' comments -

Rodrigues asked about reserves for building maintenance at the Willows Office Park.

<u>Holcombe</u> noted this is the  $12^{th}$  Anniversary of 9/11 and asked to adjourn the meeting in memory of those who lost their lives, most especially the first responders.

It was M/S/C to adjourn the meeting in memory of those who lost their lives, most especially the first responders, on this 12<sup>th</sup> Anniversary of 9/11. (Yes: Bins, Gordon, Hast, Holcombe, Mitchoff, Phillips, Rodrigues and Telles)

Brian Hast, Chairman

Jerry Telles, Secretary

# International Value Equity Manager Search Finalist Report

For

**Contra Costa County Employees' Retirement Association** 

October 23, 2013

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## **Introduction and Summary**

Milliman has conducted a search to identify a replacement for GMO the international value equity manager. This manager will complement the international growth strategy managed by William Blair. This mandate is intended to act as an alpha engine to generate superior long-term results within the overall international equity program. Milliman submitted a semi-finalist report on September 11, 2013 - discussed at the meeting - in which we presented six firms for the Board's consideration. The Board selected three firms as finalists. These firms will be interviewed at CCCERA's offices on Oct 23, 2013. Firms will have 45 minutes each for their presentations, including questions.

The interview schedule is as follows: 8:30 - 8:45 am Introduction and Overview 8:45 - 9:30 am MFS 9:35 - 10:20 am Pyrford 10:20 - 10:35 am Break 10:35 - 11:20 am Schroders

In this report we include a search overview, with tables that outline the pros and cons, product characteristics and investment process characteristics of each strategy. We also show a presentation and analysis of comparative performance and other quantitative measures for each of the finalist managers, updated through Septembers 30, 2013. A detailed summary of each manager's investment philosophy and approach follows. Finally, a glossary of the financial terms used in this report is included at the end of the report.

We will be prepared to discuss this report and answer any questions at the October 23, 2013 Board Meeting prior to the investment manager presentations.

# **Search Overview**

On May 22, 2013, the Board terminated GMO as the manager of the international value equity portfolio after a period of prolonged underperformance. At that meeting, the Board authorized a search to find a replacement manager. Assets that had been in the GMO product are being held in a passively managed index offered by State Street Bank until a replacement manager is selected.

In order to identify candidates, Milliman conducted a number of screens of the eVestment manager database and identified the firms that are best suited to manage an international value equity mandate for CCCERA. We ultimately identified 13 firms as reasonable candidates, and issued comprehensive questionnaires to that group on June 12, 2013.

# **Manager Search Process**

It was Milliman's intention to cast a wide net at the outset of this search to identify all reasonable candidates. The screens we used to identify candidate firms from the eVestment Alliance Database are shown below:

Product classified as international value equity	Firms: 116	Products: 157
Product assets of at least \$500 million	Firms: 63	Products: 86
3Yr Performance above the ACWI ex-US Value Index	Firms: 50	Products: 69
5Yr Performance above the ACWI ex-US Value Index	Firms: 43	Products: 55
5Yr Information Ratio above asset class median	Firms: 27	Products: 31
	Product classified as international value equity Product assets of at least \$500 million 3Yr Performance above the ACWI ex-US Value Index 5Yr Performance above the ACWI ex-US Value Index 5Yr Information Ratio above asset class median	Product classified as international value equityFirms: 116Product assets of at least \$500 millionFirms: 633Yr Performance above the ACWI ex-US Value IndexFirms: 505Yr Performance above the ACWI ex-US Value IndexFirms: 435Yr Information Ratio above asset class medianFirms: 27

Within the final screened group of 31 products, there were five products focused exclusively on international small cap, five closed products, and one product that as a part of the investment process excluded emerging markets. These eleven products were removed from consideration.

We then reviewed the offerings of firms that had several products, and selected the best performing, and most relevant ones. This eliminated two products from Lazard Asset Management that were focused on developed markets instead of developed plus emerging markets. Analysis of managers' characteristics as included in eVestment enabled us to eliminate five more products before issuing RFPs to the final list of thirteen candidates.

The 13 firms that received RFPs were:

	Firm	Product Name
1	Allianz Global Investors	NFJ International Value
2	Altrinsic Global Advisors	International Equity
3	First Eagle Investment Management	International Value Equity
4	Harris Associates	International
5	Lazard Investment Management	International Equity Plus (ACWI ex-US)
6	LSV Asset Management	International Large Cap Value Equity
7	Manulife Asset Management	International Value
8	MFS Investment Management	International Value Equity
9	Northern Cross	EAFE Equity
10	Polaris Capital Management	International Equity
11	Pyrford International	International Equity
12	Schroders Investment Management	QEP Global (ex-US) Value
13	Thomas White International	International Equity

We distributed questionnaires to this group of 13 candidates on June 12, 2013. Two firms chose not to participate in the search. Harris Associates chose not to respond because its product has reached capacity and First Eagle because it felt its product had too much overlap with the Global Equity product it already manages for CCCERA. Responses were received on July 15, 2013. Milliman reviewed all 11 responses and held conference calls with candidates for which we had questions. Six firms were ultimately selected as semi-finalist candidates:

	Firm	Product
1	Allianz Global Investors	NFJ International Value
2	Lazard Investment Management	International Equity Plus (ACWI ex-US)
3	Manulife Asset Management	International Value
4	MFS Investment Management	International Value Equity
5	Pyrford International	International Equity
6	Schroders Investment Management	QEP Global (ex-US) Value

The firms that were eliminated and the reason each was dropped are outlined below:

	Firm	Reason for Exclusion
1	Altrinsic Global Investors	Inconsistent performance on a rolling basis
2	LSV Asset Management	Weaker of the two quantative managers on the list
3	Northern Cross	Structural/decision making process issues, not comfortable with succession plan of senior members
4	Polaris Capital Management	Key employee risk, with small asset base
5	Thomas White International	Key employee risk, concentrated ownership structure

The semi-finalist report was presented at the September 11, 2013 meeting. During that meeting, the Board selected three firms as finalists. The three firms and products are:

	Firm	Product
1	MFS Investment Management	International Value Equity
2	Pyrford International	International Equity
3	Schroders Investment Management	QEP Global (ex-US) Value

The following pages outline the pros and cons, product characteristics and the investment process characteristics of each strategy. We display the cumulative and annual historical performance for each of the finalist managers as of September 30, 2013 compared to the MSCI All Country World Index ex-US Value. (All performance data is stated on a gross of fees basis.) We provide risk characteristics for each manager versus the index over the past three and five years and risk-reward analyses over the trailing three, five, seven and ten-year periods. Returns-based style analyses for each of the three managers under consideration are included. Next we included summaries of each firm's questionnaire response. Finally, we include a number of historic rolling measures: returns, standard deviation, downside and upside capture.

# **Pros and Cons**

Firm	Pros	Cons
MFS Investment Management	<ul> <li>Product has grown from assets of \$998 million to \$14,831 billion over the last 5 years</li> <li>Only 1 account lost in the last 5 years</li> <li>The global equity strategy is led by 3 portfolio managers with an average of 20 years of experience, and an equity research platform of 62 investment professionals.</li> <li>Low investment turnover during the past 3 years suggests a longer-term investment horizon.</li> <li>Style bias towards both quality and value</li> <li>Bottom up thematic approach</li> <li>Focus on downside protection</li> <li>Impressive and consistent outperformance</li> </ul>	<ul> <li>\$14.8 billion in asset under management (\$10 billion is in a mutual fund)</li> <li>Have had litigation issues – late trading, now settled</li> <li>Percentage of the portfolio invested in emerging market is 3.3%</li> <li>Only available through Collective Investment Trust Vehicle that is monthly valued, therefore cash flows can only occur on a monthly basis</li> <li>Prefers to use the MSCI EAFE Value Index as a performance benchmark, not ACWI ex-US Value Index</li> </ul>
Pryford International	<ul> <li>Low beta strategy, good downside protection</li> <li>Product assets have grown substantially in the last three years, with over \$700 million in new assets in 1<sup>st</sup> half of 2013</li> <li>Product assets of \$3.1 billion make up a meaningful portion of the firm's \$8.8 billion asset under management, this would indicate that this product is a very high priority for the firm</li> <li>Product team consists of 9 portfolio managers</li> <li>Country allocations are based upon a forward (5 year) estimate of country level earnings per share (EPS) growth which is then related to the country' market valuation as evidenced by the average dividend yield</li> <li>Fees of 43 basis points for separate</li> </ul>	<ul> <li>Prefers MSCI EAFE Index as benchmark</li> <li>Has hard time keeping up in rising markets (less than 100% upside market capture over the trailing three years)</li> <li>Historically low allocation to EM (6.5%-7.7%), capped at 20%</li> <li>Focus on large cap, but currently 25% of portfolio is mid cap or smaller, and there are no hard allocation bands based on capitalization size</li> </ul>

	account, or 60 basis points for a commingled fund (includes custody charges, custody at State Street Bank & Trust)		
Schroders Investment Management	Second highest 3yr information ratio of candidate firms Quantitative, fundamental bottom up approach that delivers a large portfolio of over 500 stocks (there is no maximum number of stocks, average number is 753, current number is 1460) Process aims to blend facets of value and quality investing Not index constrained, able to go anywhere but the US, across the entire cap spectrum Fee for \$300 million account is 55bps for separate account, 53bps for a commingled fund (would be seed investor, estimated annual operating expenses of 15bps, for a total fee of 68bps) No hard cap on capitalization weightings, can invest any portion of the portfolio at any cap level	•	Upper limit of emerging markets weight is 20% Smaller product with only \$497 million in assets, but the International Value strategy is one of a group of strategies totaling \$35 billion that is managed by the same team and investment process The team is organized across three key functions: the portfolio implementation team is based in London and is responsible for the day-to-day management of client portfolios, as the research team is located in both London and Sydney and its members are responsible for researching new investment strategies and enhancing existing models. The product management team is located in London and key international offices oversee all aspects of client service and marketing

# **Product Comparison**

Firm	Product Assets 6/30/13 (\$MM)	Team Size (PM/ Analysts)	Expected Number of Holdings	Turnover Rate Range	Fee (bp) for \$300 MM acct
MFS	\$16,515	4*	80-100	30-40%	59 (CIT)
Pryford	\$3,139	9*	60-95	15-40%	43 (SA) 60 (CF)
Schroders	\$497.6	2/2	500+	101-200%	55 (SA) 53 (CF)

\* Also act as analyst

MM Millions

PM Portfolio Managers

Basis points – hundredths of 1% Separate account bp

SA

CF Commingled Fund

CIT Collective Investment Trust

# **Process Comparison**

Firm	Currency Hedging	Emerging Markets Limit	Style Bias
MFS	• Not used	• Up to 15%	• Value
Pyrford	• Will hedge defensively	• Up to 20%	• Value
Schroders	• Will hedge to reduce currency exposure	• Up to 20%	• Value

## **Performance of Finalist Managers International Value Equity Search** Performance through September 30, 2013

Firm	MRQ	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
MFS	8.39	25.95	22.43	15.33	12.38	11.85	7.37	13.16
Pyrford	7.31	18.36	17.98	11.43	10.44	9.60	6.20	10.30
Schroders	12.62	20.92	18.20	9.74	10.15	11.38	6.53	
MSCI ACWI ex-US Value	11.45	17.40	15.81	6.36	5.86	6.76	3.06	9.66

Note: Periods greater than 1 year are annualized

#### Active Returns vs. MSCI All Country World Index Performance through September 30, 2013

Firm	MRQ	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs	10 Yrs
MFS	-3.06	8.55	6.62	8.97	6.52	5.09	4.31	3.50
Pyrford	-4.14	0.96	2.17	5.07	4.58	2.84	3.14	0.64
Schroders	1.17	3.52	2.39	3.38	4.29	4.62	3.47	-

Note: Periods greater than 1 year are annualized

# Performance of Finalist Managers (cont.) Annual Performance

Year to Date Ending September 30, 2013

Firm	YTD	2012	2011	2010	2009	2008	2006	2007
MFS	22.60	17.26	-0.65	10.60	26.48	-30.85	8.76	30.24
Pyrford	13.11	17.19	-1.77	9.51	31.54	-32.91	10.13	27.95
Schroders	14.22	20.02	-11.39	18.17	55.94	-44.93	11.90	
MSCI ACWI ex-US Value	10.22	17.68	-12.71	8.40	45.14	-45.10	12.87	30.41

## Annual Performance Active Returns vs. MSCI All Country World Index Year to Date Ending September 30, 2013

Firm	YTD	2012	2011	2010	2009	2008	2006	2007
MFS	12.38	-0.42	12.06	2.20	-18.66	14.25	-4.11	-0.17
Pyrford	2.89	-0.49	10.94	1.11	-13.60	12.19	-2.74	-2.46
Schroders	4.00	2.34	1.32	9.77	10.80	0.17	-0.97	

# **Risk Analysis of Finalist Managers**

Firm	Excess	Std Dev	Rk Err	Info	Sharpe	Alpha	Beta	R-Sqr
MFS	8.97	11.48	8.56	1.05	1.33	10.98	0.60	0.81
Pyrford	5.07	11.55	6.70	0.76	0.98	6.81	0.65	0.94
Schroders	3.37	17.23	2.36	1.43	0.56	3.30	0.98	0.98
MSCI ACWI ex-US Value	0.00	17.34	0.00		0.36	0.00	1.00	1.00

#### **Performance Statistics Annualized Three Years** Periods Ending September 30, 2013

## Performance Statistics Annualized Five Years Periods Ending September 30, 2013

Firm	Excess	Std Dev	Rk Err	Info	Sharpe	Alpha	Beta	R-Sqr
MFS	5.09	19.70	9.73	0.52	0.59	6.31	0.71	0.91
Pyrford	2.84	18.99	8.55	0.33	0.50	4.07	0.70	0.97
Schroders	4.63	27.08	3.23	1.43	0.41	4.35	1.01	0.99
MSCI ACWI ex-US Value	0.00	26.53	0.00		0.25	0.00	1.00	1.00

# Risk – Return Analysis 3 Years ending September 30, 2013



# Risk – Return Analysis 5 Years ending September 30, 2013



Risk – Return Analysis 7 Years ending September 30, 2013



# Risk – Return Analysis 10 Years ending September 30, 2013



# Return Based Style Analysis as of September 30, 2013

This graph shows the history of each manager's style. The larger the symbol, the more recent the period.









**Rolling 3-Year Excess Return Correlation to William Blair International Growth** vs. MSCI ACWI ex-USA

One key factor we are looking for is the ability of the manager to diversify against William Blair International Growth product. MFS and Pyrford shows negative correlations (which is good) in earlier periods, but correlations have risen recently. Schroder has had the most steady, low correlation to the William Blair product, albeit for a shorter time period than other candidate managers.

#### INTERNATIONAL VALUE EQUITY INVESTMENT MANAGER QUESTIONNAIRE As of June 30, 2013

#### **Organizational Background**

1. What is the firm name, address, and telephone and fax numbers of your main and branch offices? What investment activity takes place at each location?

Office Location	Function	Personnel Count (As of June 30, 2013)	Open Date
<b>USA (Boston)</b> MFS Investment Management 111 Huntington Avenue Boston, MA 02199 T: (617) 954-5000	Corporate Headquarters, Investment Management, Equity & FI Research, Sales & Marketing, Client Service, Operations	1,176	1924
Hong Kong MFS International (Hong Kong) Limited 1901 Wheelock House 20 Pedder Street Central, Hong Kong	Equity Research, Sales & Marketing, Client Service	3	1994*
UK (London) MFS International (U.K.) Limited Paternoster House 65 St. Paul's Churchyard London EC4M 8AB United Kingdom	Investment Management, Equity Research, Sales & Marketing, Client Service	87	1995
Japan (Tokyo) MFS Investment Management K.K. Daido Seimei Kasumigaseki Building 16F 1-4-2 Kasumigaseki, Chiyoda-Ku Tokyo 100-0013	Equity Research, Sales & Marketing, Client Service	28	1998
Singapore MFS International Singapore Pte. Ltd. 501 Orchard Road #13-01 Wheelock Place Singapore 238880	Equity Research, Sales & Marketing, Client Service	17	1998
<b>Brazil (São Paulo)</b> MFS do Brasil Rua Joaquim Floriano 1052. 11º andar Cj. 111. São Paulo, SP. Brasil CEP 04534-004	Equity Research, Sales & Marketing	3	1999
Mexico (Mexico City) MFS Investment Management Mexico Av. Jesus del Monte # 41 piso 19 of. 1901- 02 Col. Ex Hacienda Jesus del Monte C.P. 52764 Huixquilucan, Estado de Mexico	Investment Management Equity Research	4	2003
Australia (Sydney) MFS Investment Management 55 Hunter Street, 15th floor Sydney NSW 2000	Equity Research, Sales & Marketing, Client Service	16	2008

International Value Equity Manager Search Response Summary- MFS Milliman, Inc. Page 19

Canada (Toronto) MFS McLean Budden <sup>SM</sup> 77 King Street West 35th Floor Toronto ON M5K 1B7	Investment Management, Equity & FI Research, Sales & Marketing, Client Service, Operations	63	2010
United Arab Emirates (Dubai) MFS International (U.K.) Limited Office #21, Level 3, Gate Village Building 4 Dubai International Financial Centre PO Box 482065, Dubai	Sales & Marketing	1	1992*
Argentina (Buenos Aires) MFS International Ltd. Carlos Pellegrini 1265, Piso 5 Buenos Aires C1009ABY	Sales & Marketing	6	1994
<b>USA (Phoenix)</b> MFS Fund Distributors, Inc. 2575 E. Camelback Road Phoenix, AZ 85016	Sales & Marketing	15	2001
<b>Germany (Frankfurt)</b> MFS International Ltd. Mainzer Landstraβe, 33 Frankfurt am Main 60329 , Germany	Sales & Marketing	4	2005
Switzerland (Zürich) MFS International (UK) Limited Stockerhof Dreikoenigstrasse 31 A 8002 Zürich, Switzerland	Sales & Marketing	1	2005
The Netherlands (Rotterdam) MFS International (UK) Limited Lichtenauerlaan 102-120 NL-3062 ME Rotterdam, The Netherlands	Sales & Marketing	1	2007
<b>Italy (Milan)</b> MFS International Ltd. Via Torino 2 I-20123 Milan, Italy	Sales & Marketing	1	2007
<b>Spain (Madrid)</b> MFS International (UK) Limited Sucursal en España Paseo de la Castellana 95, 15th Floor E-28046 Madrid, Spain	Sales & Marketing	1	2007
France (Paris) MFS International (U.K.) Limited 19, boulevard Malesherbes 75008 Paris	Sales & Marketing	1	2008
USA (Quincy) MFS Service Center, Inc. 100 Hancock Street Quincy, MA	Transfer Agent	153	2008
<b>Canada (Montreal)</b> MFS McLean Budden <sup>SM</sup> 1250 René-Lévesque Blvd. W. Suite 3010 Montréal, QC H3B 4W8	Sales & Marketing, Client Service	5	2011

International Value Equity Manager Search Response Summary- MFS

Milliman, Inc. Page 20

Canada (Vancouver) MFS McLean Budden <sup>SM</sup> 595 Burrard Street Three Bentall Centre Suite 3043, P.O. Box 49105	Sales & Marketing, Client Service	3	2011
Vancouver, BC V7X 1G4			

\* Indicates the initial date of MFS' regional presence.

2. What is the name, position, telephone and fax numbers, and e-mail address of the firm's new business contact and database/questionnaire contact?

	New Business Contact	Questionnaire Contact
Name	Allan Duckett	Please contact Allan Duckett with any questions.
Title	Trust Officer – MFS Heritage Trust Company; Director – Institutional Sales	
Office	111 Huntington Avenue Boston, MA 02199	
Phone	(617) 954-5631	
Fax	(617) 954-7832	
Email	ADuckett@mfs.com	

 When was your firm founded? When was it registered with the SEC? MFS has been managing assets since 1924, helping generations of investors pursue their financial goals throughout varied investment markets. MFS and its predecessor organizations have been registered with the SEC since 1969.

Should MFS be selected to manage the Contra Costa County Employees' Retirement Association International Value mandate, the legal contracting entity servicing the Association will be Massachusetts Heritage Trust Company (MHTC). MHTC is a New Hampshire-Chartered Limited Purpose Trust Company and was established in 1999 as a wholly owned subsidiary of MFS Investment Management.

MHTC is a "bank" as defined in the Investment Advisers Act of 1940, as amended (the Advisers Act). As such, MHTC is exempt from registration as an investment advisor under the Advisers Act.

4. Describe the firm's ownership structure and explain any changes over the past five years. Discuss the firm's relationship with the parent and affiliated companies, if any.

MHTC, a New Hampshire-Chartered Limited Purpose Trust Company, was established in 1999 and is a wholly owned subsidiary of MFS Investment Management, commonly referred to as MFS. MFS has a history of money management dating back to 1924, when it created the first open-end U.S. mutual fund, Massachusetts Investors Trust.

MFS is a majority-owned subsidiary of Sun Life of Canada (U.S.) Financial Services Holdings, Inc., which in turn is an indirect majority-owned subsidiary of Sun Life Financial, Inc. (a diversified financial services organization). MFS has been a subsidiary of Sun Life since 1982. While MFS operates with considerable autonomy, this partnership provides significant resources as they continue to expand their global research presence.

5. State the carriers and the limits of errors and omissions and fiduciary liability insurance.

MFS and its subsidiaries, including MHTC, maintain a variety of insurance coverages that are typical of the investment management industry. The extent of coverage and exclusions for each policy are also typical of the industry. MFS' insurance policies include, but are not limited to, Professional Liability, Fidelity Bond, General Liability, and Workers Compensation. MFS does not disclose policy limits, with limited

exceptions, or claims information with respect to its insurance policies. MFS will however, produce certificates of insurance upon request. More specifically, MFS maintains

• A Directors and Officers/Errors and Omissions policy with a primary limit of liability in excess of US\$10 million. The primary carrier on the policy is ICI Mutual Insurance Company. This policy expires in November and is renewed annually.

• A Domestic Fidelity Bond with a primary limit in excess of US\$10 million. The primary layer on the Bond is a co-surety arrangement between ICI Mutual Insurance Company and Chubb Insurance Company. This policy expires in November and is renewed annually.

• General Liability coverage with limits of US\$1 million per occurrence and US\$2 million in the aggregate. The carrier on the policy is Chubb Insurance Company. This policy expires in March and is renewed annually.

• A U.S. Workers Compensation policy with statutory limits. The carrier on the policy is Sentry. This policy expires in April and is renewed annually.

MFS does not have separate fiduciary liability coverage for third parties. Fiduciary coverage is included in MFS' professional liability coverage that is provided by ICI Mutual Insurance Company.

6. Describe any litigation regarding your firm's investment activities over the past 5 years. Is the firm expecting new litigation?

MHTC has not been subject to litigation in the past five years. Pending litigation

MHTC's parent company, MFS, is not currently the subject of any material litigation. However, from time to time, MFS and its subsidiaries are named as defendants in litigation that MFS believes is not likely to have a material adverse impact on the financial position of the company or its ability to provide services to clients.

#### Concluded litigation

Over the past five years, MFS has also been involved in the following material, or potentially material, litigation or legal proceedings, all of which are now concluded:

In December 2003, MFS, MFS Fund Distributors Inc., Sun Life Financial Inc. (MFS' parent company), various MFS funds, the trustees of these MFS funds, and certain officers of MFS were named as defendants in multiple lawsuits filed in federal and state courts relating to market timing and/or late trading. The lawsuits generally alleged that some or all of the defendants permitted or acquiesced in market timing and/or late trading in some of the MFS funds, inadequately disclosed MFS' internal policies concerning market timing and such matters, received excessive compensation as fiduciaries to the MFS funds, and should not have imposed contingent deferred sales charges (CDSC) on certain redemptions. These lawsuits related to pre-2004 events. MFS (and related parties) entered into agreements with the plaintiffs to settle these actions. The settlements were given final approval by the court in October 2010.

On July 28, 2008, a class action lawsuit was filed against MFS and MFS Fund Distributors, Inc., alleging that the disclosure in certain MFS fund prospectuses concerning the value and performance of Class A shares relative to other share classes was misleading. The complaint alleged that the prospectus omitted information that might have led certain investors to invest in other share classes. After MFS filed a motion to dismiss, the plaintiff voluntarily dismissed the case with prejudice on March 5, 2009.

In 2004, MFS, MFD, Sun Life Financial, Inc., various MFS funds, the trustees of these funds, and certain officers of MFS were named as defendants in lawsuits filed in (or transferred to) the United States District Court for the District of Massachusetts. The lawsuits alleged generally that the defendants received excessive fees, permitted or acquiesced in the improper use of fund assets by MFS to support the distribution of fund shares, and inadequately disclosed MFS' use of fund assets in this manner. Those lawsuits were settled by agreement of the parties and dismissed by court orders in 2007 and 2008.

In March 2004, Premium Plus Partners, L.P. filed a class action in federal court in Chicago against MFS

International Value Equity Manager Search Response Summary- MFS Milliman, Inc. Page 22
and several other defendants, generally alleging that MFS' purchase of 30-year U.S. Treasury bonds on October 31, 2001, was made while in possession of nonpublic information. Plaintiffs alleged that such purchase, prior to the Treasury's announcement that it would no longer issue 30-year Treasury bonds, restricted the supply of available 30-year Treasury bonds and caused those who held short positions to cover those positions at higher prices. On July 30, 2008, the court granted summary judgment in favor of MFS and this decision was not appealed.

In addition, from time to time, MFS has been a party to immaterial litigation or other disputes.

7. Describe any judgments against your firm by governmental and regulatory agencies over the past 5 years. Also describe any current investigations.

There have been no judgments against MHTC or MFS by governmental or regulatory agencies over the past five years. From time to time, MFS and its subsidiaries receive subpoenas, inquiries, and other information requests from governmental or regulatory bodies, to which they respond. They consider such subpoenas, inquiries, and requests to be confidential.

8. Please provide copies of your firm's Form ADV Parts I and II.

As a New Hampshire-chartered, non-depository trust company, MFS Heritage Trust Company (MHTC) is a "bank" as defined in the Investment Advisers Act of 1940, as amended (the Advisers Act). Therefore, MHTC is excluded from the definition of "investment adviser" under the Advisers Act and, accordingly, is not required to file Form ADV, Parts 1 and 2. MFS' Form ADV Parts 1 and 2A are provided in Appendix I.

9. Please state the market value of assets under management for the firm for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained, as well as accounts and assets lost over each of these periods.

Please note the following chart has been completed on a firm wide basis for MFS, which includes assets held at MHTC.

	Total Firm Assets					
	Market Value \$(Millions)	# Accounts Gained	Assets Gained \$(Millions)	#Accounts Lost	Assets Lost \$(Millions)	
Dec 31, 2008	127,581.8	43	3,953.3	20	1,474.2	
Dec 31, 2009	183,448.2	91	10,058.6	21	1,104.8	
Dec 31, 2010	219,655.6	102	11,952.8	14	2,185.8	
Dec 31, 2011	251,423.9	94	8,998.6	24	2,624.6	
Dec 31, 2012	321,452.5	112	14,885.2	19	1,726.4	
March 31, 2013	347,752.0	13	993.1	8	722.3	

10. Please state the market value of assets under management for the recommended product for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained, as well as accounts and assets lost over each of these periods.

Please refer to the following chart for the MFS International Value Fund – Collective Investment Trust (CIT), which funded on September 21, 2010.

Specifica international value Equity i routet							
	Market Value	# Accounts	Assets Gained	# Accounts	Assets Lost		
	\$ (Millions)	Gained	\$ (Millions)	Lost	\$ (Millions)		
Dec 31, 2010	110.6	1	105.6	0	0		
Dec 31, 2011	98.6	1	6.0	0	0		
Dec 31, 2012	109.3	2	34.0	1	32.6		
March 31, 2013 <sup>1</sup>	118.2	0	0	0	0		

#### **Specified International Value Equity Product**

Please refer to the following chart for the MFS International Value Equity strategy, which shows all assets managed in the style, including the MFS International Value Fund – CIT

Specificu International Value Equity I roduct							
	Market Value	# Accounts	Assets Gained	# Accounts	Assets Lost		
	\$ (Millions)	Gained	\$ (Millions)	Lost	\$ (Millions)		
Dec 31, 2008	998.5	0	0	0	0		
Dec 31, 2009	3,008.9	3	350.2	0	0		
Dec 31, 2010	5,149.7	6	688.7	0	0		
Dec 31, 2011	6,538.9	4	175.2	0	0		
Dec 31, 2012	12,395.2	10	1,168.7	1	32.6		
March 31, 2013 <sup>2</sup>	14,831.4	0	0	0	0		

# Specified International Value Equity Product

#### **International Value Equity Investment Services**

11. Please provide the name of the product described in the remainder of this response.

MFS International Value Fund – Collective Investment Trust (CIT)

12. Provide the following information on the firm's key members of the international value equity portfolio management team: names, titles and responsibilities, years on the product (please note any changes in roles below), years with firm, and years of investment experience. Please provide biographies and an organization chart.

		Yrs. w/	Yrs. W/	Yrs. Inv.
Name	Title	Product	<u>Firm</u>	Exp.
Barnaby Wiener	Portfolio Manager	10	15	19
Benjamin Stone	Portfolio Manager	5	7	17
Camille Humphries Lee, CFA	Institutional Portfolio Manager	7	13	23

Biographies are included below:

<sup>&</sup>lt;sup>1</sup> Please note assets as of June 30, 2013 are not yet available. Year-to-date asset and account values provided are as of March 31, 2013.

<sup>&</sup>lt;sup>2</sup> Please note assets as of June 30, 2013 are not yet available. Year-to-date asset and account values provided are as of March 31, 2013.

Barnaby Wiener

- Investment Officer
- Equity Portfolio Manager
- Serves on MFS Global Equity Management Committee.
- As a Value Equity Portfolio Manager, responsible for final buy and sell decisions, portfolio construction, risk and cash management. Participates in the research process and strategy discussions.
- Joined MFS in 1998; previous positions include Equity Research Analyst.
- Previous experience includes 2 years as Vice President & Equity Analyst at Merrill Lynch; 2 years as Equity Research Analyst at Credit Lyonnais.
- Served five years in the British Army reaching the rank of Captain.
- Royal Military College, Sandhurst, Graduate Course
- Oxford University, MA, upper 2nd class history degree

Benjamin Stone, IIMR

- Investment Officer
- Equity Portfolio Manager
- As a Value Equity Portfolio Manager, responsible for final buy and sell decisions, portfolio construction, risk and cash management. Participates in the research process and strategy discussions.
- Joined MFS in 2005; previous positions include Equity Research Analyst.
- Previous experience includes 9 years as Research Analyst at Schroders Investment Management.
- Affiliations include Institute of Investment Management and Research.
- Durham University, BA, 2:1

Camille Humphries Lee, CFA

- Investment Officer
- Institutional Equity Portfolio Manager
- As an Institutional Portfolio Manager, participates in the research process and strategy discussions. Assesses portfolio risk, customizes portfolios to client objectives and guidelines, and manages daily cash flows. Communicates investment policy, strategy, and positioning.
- Joined MFS in 2000.
- Previous experience includes 3 years as Research Analyst at SG Cowen Securities Corporation; 8 years as Research Analyst and Associate Analyst at Alex Brown.
- Affiliations include CFA Institute, Boston Security Analysts Society, Inc.
- University of Virginia, MBA
- University of Virginia, BA
- 13. What has been the level of personnel turnover for investment professionals at both the firm and product levels over each of the last five years and the current year to date? Please explain any losses at the product level.

Year	Firm-v	wide	Product S	Specific
	Employees Added	Employees Lost	Employees Added	Employees Lost
Dec 31, 2008	11	18	1	0
Dec 31, 2009	9	8	0	0
Dec 31, 2010	13	6	0	0
Dec 31, 2011	27	6	0	0
Dec 31, 2012	7	6	0	0
June 30, 2013	5	2	0	0

14. As of June 30, 2013, provide the number of accounts, assets under management, median account size, and

number of portfolio managers in the product.

Please note the information provided below is as of March 31, 2013. Asset and account data as of June 30, 2013 is not yet available.

# MFS International Value Fund – CIT

Please refer to the following chart for the MFS International Value Fund – Collective Investment Trust (CIT).

\$ Assets Under Mgt (MM)	Number of Investors	Median Client Size (MM)	Largest Client Size (MM)	Number of Portfolio Mgrs	Number of Inv Analysts
118.2	$3^{3}$	9.9	103.9	$3^4$	32

# MFS International Value Equity Strategy

Please refer to the following chart for the MFS International Value Equity strategy, which is the underlying strategy of the MFS International Value Fund – CIT.

\$ Assets Under Mgt	Number of Investors	Median Client Size	Largest Client Size	Number of Portfolio Mgrs	Number of Inv Analysts
(MM)		(MM)	(MM)	9	•
	1			- 4	

15. Please provide the following information as of June 30, 2013 for each vehicle through which your international value product is offered:

	Offered? (Y/N)	Assets (\$MM)	Acct Minimum
Separate Account	Y	4,404.0	50.0 <sup>5</sup>
Commingled Fund	Y	118.2	3.0
Mutual Fund	Y	10,309.2	None
Other (specify)	-	-	-

Please note the information provided above is as of March 31, 2013. Asset and account data as of June 30, 2013 is not yet available.

16. Is there a limit to the amount of assets the firm will manage in this product? If yes, please specify.

At MFS, they continually evaluate the capacity of products in order to preserve their ability to provide superior investment performance through a combination of quantitative and qualitative techniques.

Capacity is closely monitored and systematically measured as part of MFS' comprehensive risk management process. A preliminary estimate of capacity is run for all strategies as part of their semi-annual portfolio review process. Capacity estimates are modeled on several factors including firm ownership limits and trading volumes. The estimate also takes into consideration common holdings across all MFS products. If a product's total assets approaches the forecast of the quantitative model additional analysis is performed which includes a review of additional quantitative factors as well as qualitative input from the investment team. They also monitor investment style and transaction costs on an ongoing basis to ascertain whether asset inflows have caused unintended style shifts and whether increasing assets are making a strategy more expensive to implement.

Product closures are implemented at appropriate asset levels to protect the interest of their clients. MFS has demonstrated a record of closing products when we reach capacity, which they will continue to uphold.

<sup>&</sup>lt;sup>3</sup> Represents institutional investors only.

<sup>&</sup>lt;sup>4</sup> Includes Portfolio Managers Barnaby Wiener and Benjamin Stone and Institutional Portfolio Manager Camille Humphries Lee.

Based on their ongoing evaluation of capacity across the firm, they implemented a soft close of their International Value Equity strategy to new separate accounts in November 2012. Taking into account the current assets under management and anticipated flows, they believe this was an appropriate time to begin to limit flows into the strategy. Pooled vehicles designed for institutional investors and the retail mutual fund have remained open to new and existing clients.

17. What internal controls are in place to monitor market timing activity in particular and late trading in your firm's funds? Who monitors these activities? Have there been any trading policy violations over the past five years?

The company has in place a policy on market timing that is designed to protect the interests of long-term shareholders of MFS funds. According to the current policy, investors are restricted as to the number of times they may exchange out of a fund during a calendar quarter (subject to certain dollar limits). Additional information on MFS retail mutual funds and their prospectus disclosure on market timing can be found at their website, <u>www.mfs.com</u>.

There have been no trading policy violations over the past five years. Please note these policies pertain to registered mutual funds offered by MFS and do not specifically pertain to the MHTC collective investment trust.

#### **International Value Equity Investment Philosophy**

18. Briefly describe the investment philosophy/strategy, style and distinguishing characteristics of this product.

#### **Investment Philosophy**

They believe:

Most market participants speculate on near-term information and overreact to short-term news flow.

- They invest on a three- to five-year time horizon. Their global research platform, collaborative investment process, and compensation structure are all aligned with this time frame. Most market participants attach too much weight to forecasts, which often prove inaccurate, particularly at
  - Most market participants attach too much weight to forecasts, which often prove inaccurate, particularly at inflection points.
- They seek an analytical advantage by evaluating the long-term quality, sustainability, improvement potential, and intrinsic value of businesses.

Most market participants overemphasize upside potential versus downside risk.

They manage client capital by avoiding stocks with substantial downside risk and only invest where valuations more than compensate for inherent risks.

#### Style

They would describe the style of the CIT as international all-cap value equity.

#### **Distinguishing characteristics**

They believe the competitive advantages of International Value include Integrated global research platform

- collaborative culture critical to process
- combines equity, fixed-income, and quantitative analysis Disciplined, consistent strategy
- seek sustainable returns in various market environments
- assess investment opportunities in context of three- to five-year time horizon Rigorous valuation discipline
- patient, contrarian approach
- focus on downside risk management
- 19. Does your firm's international value equity discipline have a growth, value or core style bias?

The MFS International Value Fund – CIT has a value style bias.

20. Explain the firm's portfolio approach to the level of cash and equivalent holdings. Specify the normal, maximum and minimum levels of cash holdings.

Generally, the fund has been fully invested. Cash levels have been the result of buy/sell transactions, rather than a reflection of their optimism/pessimism regarding international equity markets. Generally, the maximum of cash that has been committed to the fund is 10%. However, the percentage of cash has typically been less than 5%.

21. Briefly state how your firm defines an investable international value equity market for the purposes of this product.

The investable universe for the strategy has included all securities included in the MSCI All County World ex US Index.

22. How does your firm assess the liquidity of individual equity markets?

Liquidity risk comprises market liquidity and settlement liquidity. Market liquidity is the risk that a transaction cannot be unwound because of inadequate market depth, while settlement liquidity is the risk that an investment manager will not be able to meet its obligations resulting from a transaction. The MFS Investment Management Committee considers market depth as part of the criteria for approval of a new instrument and in its periodic evaluation of existing instruments.

Prior to investment, portfolio managers consider the relationship between liquidity and size of the position. The Compliance team uses an internal compliance system to monitor positions based on Information Memorandum, Trust Deed, and internal guidelines.

The Quantitative Solutions team, portfolio managers, and the Investment Management Committee semiannually review capacity liquidity analysis on equity portfolios by quantifying the number of days of trading volume held by portfolio and the complexity for each security. Through various sources including other MFS departments, the MFS Investment Compliance Group receives and reviews information regarding newly acquired restricted/illiquid securities. In addition, these

receives and reviews information regarding newly acquired restricted/illiquid securities. In addition, these securities may be deemed liquid under approved procedures. This information is used to monitor and to report applicable limitation requirements.

Certain security types are automatically considered illiquid unless deemed liquid. Board-approved procedures exist for deeming certain securities to be liquid. These include 144A securities, municipal lease securities, 4(2) commercial paper, bank loans, and private placements. In addition, portfolio managers are responsible for reviewing the trading markets of their securities and for evaluating a number of factors to determine liquidity, such as frequency of trades, number of dealers making a market in the security, and whether the security can be disposed of in the ordinary course of business within seven days.

23. Will your firm invest in emerging equity markets in this investment discipline? If yes, specify the typical portfolio percentage as well as maximum and current (6/30/2013) percentage.

Yes. While they consider International Value's primary universe to be any stock that is a member of the MSCI EAFE Index, the fund may invest in emerging equity markets. Historically, the fund's emerging markets limit has not exceeded 15%.

As of March 31, 2013, the current emerging markets exposure in the fund was 1.6%. Since the fund's inception in 2010, the maximum emerging markets exposure in the fund has been 4.4% (December 2010, January 2011). The average emerging markets exposure from September 2010 to March 2013 was 3.3%. Please note that due to MFS' holdings policy, portfolio characteristics for pooled vehicles cannot be released prior to the 15<sup>th</sup> day following quarter-end. As such, emerging markets exposure as of June 30, 2013 is not yet available.

24. What securities other than common stock and cash equivalents will be held?

In addition to common stock and cash equivalents, the fund may invest in ADR versions of stocks in which the ordinary shares are a component of the MSCI EAFE Index.

25. Does your firm engage in currency hedging in this strategy? If yes, is there a maximum hedge ratio for major currencies?

Currency derivatives may be used in the fund purely for defensive purposes if the fund is overweight or underweight a country or region, with the objective of providing downside risk management in the event of a significant move in currency exchange rates.

In November 2009, they purchased yen put options to hedge part of the portfolio's exposure to the yen. Considering their overweight in Japan and exposure to a number of domestic Japanese companies, combined with the strength of the yen relative to other currencies, they were concerned that a possible sharp decline in the value of yen could detract from portfolio returns.

They do not have a maximum hedge ratio for major currencies.

26. State typical benchmark(s) used to measure the fund's performance. Which do you believe is best?

The MFS International Value Fund – CIT has sought to outperform the MSCI EAFE Value Index (Europe, Australia, Far East) (net dividends reinvested) over a full market cycle. The MSCI EAFE (Europe, Australia, Far East) (net of dividends reinvested) is a secondary benchmark.

Their "best-fit" analysis reveals that the MSCI EAFE Value Index is most suitable, and, in their view, can best help investors understand the potential return patterns of International Value over time. A broader index, such as the MSCI EAFE, is also appropriate, however, given the diversified nature of International Value, its reliance on stock picking as the primary driver of security selection, and the portfolio management team's comfort with broader benchmarks.

27. What is the expected tracking error of this product compared to the MSCI ACWI ex-US Value Index?

The MFS International Value Fund – CIT, while benchmark aware, has been primarily structured as a stock picking strategy where the benchmark does not guide security selection. As noted above, MFS International Value is benchmarked against the MSCI EAFE Value (primary) and MSCI EAFE (secondary) indices. Given the strategies underweight to Emerging Markets versus the MSCI ACWI ex-US Value, it would not be an appropriate benchmark.

Tracking error has generally fallen within a range of 3% - 8% on a prospective basis relative to both the MSCI EAFE Value and MSCI EAFE indices. They monitor predicted tracking error regularly to ensure that they understand the sources of risk in their fund, and that they are not taking any unintended positions relative to the benchmark. They do not, however, tactically shift their portfolio positioning (relative sector and country weightings) to increase or decrease the portfolio's tracking error.

28. Does this product target a particular level of volatility (index-relative or absolute)? If so, please describe how the volatility target is implemented.

The fund's goal is to outperform the MSCI EAFE Value Index over full market cycles with below average volatility. While the fund has not targeted a particular level of volatility, volatility is controlled through stock selection. Most market participants attach too much weight to forecasts, which often prove inaccurate, particularly at inflection points. They seek an analytical advantage by evaluating the long-term quality, sustainability, improvement potential, and intrinsic value of businesses. Most market participants overemphasize upside potential versus downside risk. They manage client capital by avoiding stocks with substantial downside risk and only invest where valuations more than compensate for inherent risks.

Please refer to the following chart for standard deviation and beta, as of June 30, 2013, for the MFS International Value Fund – CIT, Class 1 shares net of fees, since its inception in September 2010.

	Standard Deviation	Beta
MFS International Value Fund - CIT	13.03	0.62
MSCI EAFE Value Index - Net	18.91	1.00
Return		

Please refer to the following chart for standard deviation and beta, as of June 30, 2013, for the MFS International Value Equity composite, gross of fees. The composite is representative of the fund's underlying strategy, MFS International Value Equity.

	Standard Deviation			Beta		
	3-Year	5-Year	10-Year	3-Year	5-Year	10-Year
MFS International Value Equity Composite	13.75	19.44	15.47	0.67	0.77	0.77
MSCI EAFE Value Index – Net Return	19.42	24.43	19.30	1.00	1.00	1.00

#### **International Value Equity Research Process**

29. Describe the process for identifying attractive securities. List screening steps and fundamental security requirements. What role does macro-economic research play in this process? Describe the analytical research performed on individual securities.

# Idea generation: invest rather than speculate

The process of getting from the broad universe of securities to a group of 80 - 100 stocks that historically have made up the fund starts with idea generation. With a focus on teamwork and communication, the portfolio management team, fundamental research analysts, and quantitative analysts actively participate in the idea-generation process.

The analysts are organized into eight global sector teams that include capital goods, consumer cyclicals, consumer staples, energy, financial services, health care, technology, and telecommunications and cable. The sector-team structure facilitates the sharing of information across geographies as well as asset classes, resulting in a highly collaborative, integrated model that leverages all of the research being done by MFS. The global platform enables all investment professionals to develop a comprehensive view of the securities under evaluation. They believe that this helps us to make better investment decisions for the portfolio. In each sector team, analysts are responsible for following companies within their specific industry-coverage area.

They develop and maintain their own earnings and valuation models, visit with company management teams, and interview competitors, suppliers, and customers in order to form an opinion about each company. Within the global sector framework, they also incorporate relevant data points gathered by other analysts to complete the overall investment picture. Ultimately, this process leads to a "buy," "hold," or "sell" rating for each company that is followed.

The International Value team also leverages the significant investment experience of other MFS portfolio managers to round out its idea generation process. Most of their portfolio managers started their careers at MFS as analysts, and, as such, they have a long investment history of working together — even with managers outside of their respective disciplines. The International Value team's ability to leverage the knowledge of other portfolio management teams can be an important source of alpha for the portfolio.

Finally, as a complement to their fundamental research efforts, the firm also has significant in-house quantitative research capabilities that have grown over the last several years in scale and scope. The quantitative research team has been helpful in generating new ideas by running screens based on International Value's investment criteria to stimulate discussion around ideas currently owned or not owned. This team is generally viewed as another resource for the portfolio management team to utilize in coordination with their fundamental, bottom-up process in evaluating potential investment ideas.

The International Value portfolio management team collaborates on an ongoing basis with the analysts throughout their research process, accompanying them on company visits, working through their financial models, valuation framework, and other parts of their investment thesis. Interaction with the analyst teams, both formally and informally, results in highly collaborative discussions to select appropriate ideas for inclusion within the portfolio. Analysts and portfolio managers also exchange ideas and information in formal weekly meetings. However, much of the communication among the members of the investment team takes place on an informal basis through face-to-face discussions, voicemail/e-mail, and an online notes system through which team members post reports and ratings for companies followed.

# Stock analysis: analyze rather than forecast

Once an idea has been generated, the next step is for the team to decide whether the idea is a good fit for the fund. The team is focused on assessing the durability of returns and intrinsic value. The following investment issues are addressed:

- **Evaluate quality:** The team defines quality as a company's ability to generate returns above its cost of capital on a sustainable basis. As part of the team's analysis, the following questions are considered: How sustainable is the company's business model? How fast is the industry growing? How cyclical is the industry and what risks are involved? What is the strength of the management team? How does it allocate capital?
- Determine appropriate valuation: The team looks for stocks that are cheap on a wide range of valuation metrics, believing that in some cases, valuation alone can be the catalyst. Multiple valuation measures are evaluated in making their assessment: cash flow, book value or total capital employed, earnings, sales, dividend yield, as well as the company's cash flow return on investment (CFROI). The team then considers how these valuation measures compare versus the company's history, its peers, and the overall market.
- Assess improvement potential: The team believes that the market often overlooks the potential value that can be created by companies vis-à-vis improving structural conditions, including changes in supply/demand, relative profitability and restructuring potential, and analysis of changes in management Using a longer-term investment framework enables the team to fully assess the potential impact of future fundamental improvements on a company's sustainable returns, cash flows, margins, etc. that may result from changing structural conditions.
- 30. What is the number of securities regularly followed by security analysts and/or portfolio managers?

Analysts typically cover two industries and have active ratings on 30-40 securities.

31. Describe any processes in place to detect accounting irregularities at companies held in the portfolio.

Assessing the quality of a company's underlying earnings and understanding the potential for corporate financial statement irregularities require one to be diligent in analyzing the integrity of accounting reports issued by the company. Their fundamental, bottom-up research process involves a diligent review of a company's financial statements.

They place particular emphasis on the free cash flow that is generated by the company — which is typically less subject to accounting manipulation than income statement items — and how it relates the net income reported by the company. Over time, there should be a consistent relationship between the cash flows of the business and its net income. Poor free cash flow conversion or inconsistencies in this ratio can be one indication that a company's earnings may be of lower quality or that its accounting policies may not match its underlying

business economics. In addition, having their equity and fixed income analysts working in close collaboration with each other as they analyze companies is also helpful in noting potential problem areas.

Their analysts create proprietary financial models on all companies that they follow — including income statements, statements of cash flows, and balance sheets. They believe understanding how a business operates and comparing it to similar companies within the same industry segment or sector can also help to highlight potential areas of concern with respect to both earnings quality or fraudulent accounting practices. Finally, they have raised their internal awareness on where reporting segment irregularities are most prevalent and which industries and events (such as acquisitions) warrant heightened scrutiny.

32. Does your firm use any technical and/or price momentum research? If so, how and why?

No. The primary driver of stock ratings and purchase and sell decisions is fundamental analysis. Additionally, their analysts and portfolio managers have access to several quantitative systems that allow them to monitor technical and price factors for the securities followed and owned in the fund. While analysts are aware of technical research, the basic driver of an investment thesis is fundamental analysis.

#### **Portfolio Construction and Management**

33. Describe in detail the portfolio construction and management process. If a team approach is used, state the names of the team members and explain the role(s) of each team member.

The International Value team includes Portfolio Managers Barnaby Wiener and Benjamin Stone and Institutional Portfolio Manager Camille Humphries Lee. Barnaby and Benjamin participate in the research process and strategy discussions and maintain overall responsibility for portfolio construction, final buy and sell decisions, and risk management for the fund. Institutional Portfolio Manager Camille Lee participates in the research process, portfolio construction discussions, assesses risk, manages daily cash flows, and communicates investment policy, strategy, and tactics.

As the team evaluates all of the potential investment opportunities, it is guided by a common investment philosophy and framework. Potential ideas are evaluated and compared based on valuation, business characteristics, balance sheet, normalized cash flow generation, sustainable returns, and risk/return opportunity, etc. The portfolio construction process is highly collaborative and is conducted based on bottom-up, fundamental research. Position size within the fund has been determined by the level of conviction in the idea (e.g., the upside potential/downside risk) and liquidity of the company. Sector, industry, country, and regional weightings have generally been the residual of the bottom-up, stock selection process, rather than the result of any top-down, macroeconomic outlook.

Generally, no more than 5% has been held in a single issue at purchase, and no more than 25% has been allocated to any one industry. Generally, the fund's emerging markets limit has not exceeded 15%. The fund has typically held 80 - 100 holdings, the majority of which were buy-rated securities. All final buy and sell decisions are made by Portfolio Managers Barnaby Wiener and Benjamin Stone.

34. What is the current number, typical number and range of securities held in the product?

As of June 30, 2013	Typical Number	Range
93	90	80 - 100

35. As of June 30, 2013, state the typical portfolio allocation to equities in the market capitalization ranges shown below. Also, please specify the possible ranges and typical allocations for each category.

International Value is an all-cap value investment approach. They generally have invested in companies with a market capitalization that is greater than US\$1 billion at the time of purchase. They do not have predefined targets for exposure across small-, mid-, or large-cap segments of the market. Please note the information provided below is as of March 31, 2013. Due to MFS' holdings policy, portfolio characteristics for pooled vehicles cannot be released prior to the 15<sup>th</sup> day following quarter-end.

Market Canitalization Range	Allocation as of June 30, 2013	Typical Allocation	Possible Range of Allocation
Less than \$100 million	0.0	-	-
Between \$100 mil. and \$500 mil.	0.0	-	-
Between \$500 mil. and \$1 bil.	0.0	-	-
Between \$1 bil. and \$3 bil.	10.9	-	-
Between \$3 bil. and \$5 bil.	9.1	-	-
Between \$5 bil. and \$10 bil.	11.5	-	-
Between \$10 and \$20 billion	12.2	-	-
Greater than \$20 billion	56.4	-	-
Median Market Capitalization	31.6	-	-
Weighted Average Market Capitalization	54.9	-	-

36. Describe the firm's sell discipline.

They will review a stock for potential sale if any of the following occur:

- expensive valuation
- fundamentals change
- more attractive alternatives
- 37. What has been the average international value equity turnover for each of the last five years and the current year to date?

Turnover data represents the ongoing buying and selling of shares, but not necessarily the entire selloff of a position. The managers will buy a security when an attractive investment idea is discovered and, if not funding the purchase with cash; will similarly sell off a less attractive position to fund the purchase. The turnover data also represents increased positions of current holdings, which are seen as attractive investments by the portfolio managers.

The current annual turnover is representative of the expected rate, approximately 30-40%. The table below details 12 month portfolio turnover as of the following dates. Due to MFS' holdings policy, portfolio characteristics for pooled vehicles cannot be released prior to the 15<sup>th</sup> day following quarter-end.

	MFS International Value Fund – CIT Turnover <sup>6</sup>
YTD (as of March 31, 2013)	47.71%
12/31/2012	50.09%
12/31/2011	22.89%
12/31/2010	6.42% <sup>7</sup>

# **Investment Management Fees**

38. Provide your fee schedules for the international equity product, both for commingled/mutual funds and separate accounts. If a commingled fund is proposed, what are the custody costs of the trust and are they an additional fee that is directly charged to the client? Please specify who custodies the assets. Are investment management fees negotiable?

# MFS International Value Fund – Collective Investment Trust (CIT) Fee Proposal

The MFS International Value Fund - CIT is offered in multiple share classes.

Management fees for Class 1 shares are assessed outside of the fund (*i.e.*, separately invoiced and not reflected in the NAV) and are based on the client's assets. For the other share classes, fees will be assessed

<sup>&</sup>lt;sup>6</sup> This mode is based on the following calculation: (Lesser of Purchase or Sales)/Average Market Value of the Date Range.

<sup>&</sup>lt;sup>7</sup> Partial period. The fund incepted in September 2010.

inside the fund (*i.e.*, reflected in the NAV).

Shown below is the fee schedule proposed for the Contra Costa Employees' Retirement Association for the Class 1 shares of the MFS International Value Fund - CIT.

Assets (\$ USD)	Management Fee	Other	Total Expense Ratio
First \$25 million	75 bps	10 bps	85 bps
Next \$25 million	70 bps	10 bps	80 bps
Next \$50 million	60 bps	10 bps	70 bps
Over \$100 million	50 bps	10 bps	60 bps

For allocations greater than \$100 million but below \$300 million, their Class 4 shares of the fund are most appropriate. Below is the fee schedule for Class 4 shares:

Assets (\$ USD)	Management Fee	Other	Total Expense Ratio
Flat Fee	55 bps	10 bps	65 bps

For allocations greater than \$300 million, their Class 5 shares of the fund are most appropriate. Below is the fee schedule for Class 5 shares:

Assets (\$ USD)	Management Fee	Other	Total Expense Ratio
Flat Fee	49 bps	10 bps	59 bps

To protect the interests of existing investors, MFS institutional commingled vehicles are subject to a transaction fee policy that reimburses the vehicle for estimated trading costs associated with large cash flows. These fees are not reflected in the fee schedule above. The fee is paid to the vehicle, not to MFS. State Street Bank and Trust Company serves as the fund's custodian.

#### MFS International Value Equity Separate Account Fee Proposal

MFS implemented a soft close of the International Value Equity strategy to new separate accounts, effective April 1, 2013. As such, a separate account fee schedule is not applicable.

39. Has the firm entered into incentive fee arrangements? If so, provide details.

They have occasionally entered into performance-based fee arrangements. Their willingness to offer a performance-based fee is influenced by the mandate size, their existing exposure to performance-based fees in the product, and the firm's overall exposure to performance-based fees.

While the specifics of any performance-based fee arrangement are subject to negotiation, an example of a typical arrangement would be one in which they are compensated at a specified base rate for their services and receive an additional fee based on a percentage of outperformance over the benchmark.

40. Does your firm use any service, information, or merchandise paid for with directed commissions? If yes, please list the services received from such commissions, and the percentage of fees so directed.

Many full service broker/dealers with whom MFS trades could be viewed as the recipients of soft dollar trades. As permitted by Section 28(e) of the Securities Exchange Act of 1934, as amended (Section 28(e)), MFS may cause a client to pay a broker or dealer that provides brokerage and research services to MFS an amount of commission for effecting a securities transaction for the client in excess of the amount other brokers or dealers would have charged for the transaction if MFS determines in good faith that the greater commission is reasonable in relation to the value of the brokerage and research services provided by the executing broker or dealer viewed in terms of either a particular transaction, the value of research and brokerage services provided

in connection with MFS' overall relation with the broker or dealer or MFS' overall responsibilities to the client and its other clients. Although commissions paid on every transaction will, in the judgment of MFS, be reasonable in relation to the value of the brokerage and research services provided, commissions exceeding those which another broker might charge may be paid to broker/dealers who were selected to execute transactions on behalf of the client and MFS' other clients in part for providing such brokerage and research services.

MFS has entered into Client Commission Agreements (CCAs) with broker/dealers that execute, clear, or settle securities transactions on behalf of clients (executing brokers) that provide for the executing brokers to pool a portion of the commissions paid by registrant's clients for securities transactions (pooled commissions) to providers of research (research providers). Such research providers produce research for the benefit of the registrant. Because a research provider may play no role in executing client securities transactions, any research prepared by that research provider may constitute third-party research. The registrant may use brokerage commissions, including pooled commissions, from the clients' portfolio transactions to acquire research, subject to the procedures and limitations described in this discussion.

Please refer to the following chart for a percentage of trades executed that were tied to soft dollar relationships for the past three years, ending December 31, 2012.

Calendar Year-end (1/1-12/31)	Percentage of Trades tied to Soft Dollars
2012	14.3%
2011	12.6%
2010 <sup>8</sup>	12.7%

41. Please provide copies of your firm's Form ADV Parts I and II.

As a New Hampshire-chartered, non-depository trust company, MFS Heritage Trust Company (MHTC) is a "bank" as defined in the Investment Advisers Act of 1940, as amended (the Advisers Act). Therefore, MHTC is excluded from the definition of "investment adviser" under the Advisers Act and, accordingly, is not required to file Form ADV, Parts 1 and 2.

MFS' Form ADV Parts 1 and 2A are provided in Appendix I.

# International value Equity Investment Performance

42. Provide quarterly historical performance for your product using the attached form. Do not include any simulated data. Returns should be total portfolio, time-weighted rates of return **both gross and net** of investment management fees. For year-end periods, also provide the market value of assets and number of accounts. If you offer both a commingled product and separate accounts, provide performance for both.

Please refer to Appendix II.

43. Please specify the methodology for constructing the firm's composite performance.

As a general rule, a new account is added to a composite in the second full month of the account's performance history and has a minimum of \$5 million in net assets for fixed-income composites. For equity composites, the general rule is an account is added to a composite in the first full month of the account's performance history

<sup>&</sup>lt;sup>8</sup> Partial period. The fund incepted in September 2010.

and has a minimum of \$2 million in net assets. However, there are exceptions to the above rules for specific composites.

All terminated accounts remain in the composite's history. The terminated account ceases to be a component in the month they lose discretion.

Portfolios in their composites are size weighted. Since inception, this policy has been consistently applied.

44. Are returns audited? By whom? Are returns CFAI/AIMR compliant? For what time period? Please provide the most recent statement of verification by an independent third party.

MFS claims compliance with the Global Investment Performance Standards (GIPS®). All composite performance data supplied in this response are taken from reports constructed to be strictly compliant with the requirements of those standards. MFS engages Deloitte & Touche to conduct an annual verification examination of firmwide compliance plus performance reviews of selected composites

#### INTERNATIONAL VALUE EQUITY INVESTMENT MANAGER QUESTIONNAIRE As of June 30, 2013

#### **Organizational Background**

1. What is the firm name, address, and telephone and fax numbers of your main and branch offices? What investment activity takes place at each location?

Name of firm:	Pyrford International Ltd.
Address:	79 Grosvenor Street
	London
	W1K 3JU
	United Kingdom
Telephone:	+44 20 7495 4641
Fax:	+44 20 7399 2205
E-mail:	information@pyrford.co.uk

2. What is the name, position, telephone and fax numbers, and e-mail address of the firm's new business contact and database/questionnaire contact?

New Business Contact		Questionnaire Contact	
Name	Mark Osterkamp	Simon Phillips	
Title	Relationship Manager, Institutional Sales,	RFP Manager	
	BMO Global Asset Management		
Office	BMO Asset Management US,	79 Grosvenor Street, London UK	
Phone	310 321 7852	+44 20 7399 2242	
Fax	310 321 7810	+44 20 7399 2205	
Email	mark.osterkamp@bmo.com	simon.phillips@pyrford.co.uk	

3. When was your firm founded? When was it registered with the SEC?

Pyrford was founded in 1987 and was registered with the SEC in 1989.

4. Describe the firm's ownership structure and explain any changes over the past five years. Discuss the firm's relationship with the parent and affiliated companies, if any.

Pyrford is 100% owned by Bank of Montreal Capital Markets (Holdings) Limited, a company within the BMO Financial Group (being Bank of Montreal and its subsidiaries). There have been no ownership changes during the last five years.

5. State the carriers and the limits of errors and omissions and fiduciary liability insurance.

Pyrford carries the following insurance coverage for its business:

Public Liability Insuran	ce
Name of underwriter	Chubb Insurance Company of Canada
Policy number	35347551 (Primary Commercial General Liability)
Expiry Date	April 30 <sup>th</sup> , 2014
Level of coverage	C\$1,000,000
Amount deductible	C\$100,000
Name of underwriter	Chubb Insurance Company of Canada
Policy number	79733428 (Excess & Umbrella Liability)
Expiry Date	April 30 <sup>th</sup> 2014

International Value Equity Manager Search Response Summary- Pyrford Milliman, Inc. Page 37

Level of coverage	C\$10,000,000 (excess of C\$1,000,000)
Amount deductible	C\$100,000

#### **Employers' Liability Insurance**

Name of underwriter	Amlin Insurance Services
Policy number	L10000023822
Expiry Date	March 31 <sup>st</sup> 2014
Level of coverage	£5,000,000
Amount deductible	None.

#### **Professional Indemnity Insurance**

Name of underwriter	Travelers Insurance Company Ltd.
Policy number	KK325610j001
Expiry Date	March 4 <sup>th</sup> 2014
Level of coverage	£10,000,000
Amount deductible	£75,000

Additionally, the SEC sets out a minimum requirement to hold an appropriate ERISA bond. Pyrford holds this through Hartford Fire Insurance Corp. for an amount of US\$500,000.

6. Describe any litigation regarding your firm's investment activities over the past 5 years. Is the firm expecting new litigation?

There are no litigation issues applicable.

7. Describe any judgments against your firm by governmental and regulatory agencies over the past 5 years. Also describe any current investigations.

There are no such judgements applicable.

8. Please provide copies of your firm's Form ADV Parts I and II.

Please refer to Appendix 1.

9. Please state the market value of assets under management for the firm for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained, as well as accounts and assets lost over each of these periods.

	Total Firm Assets				
	Market Value \$(Millions)	# Accounts Gained	Assets Gained \$(Millions)	#Accounts Lost	Assets Lost \$(Millions)
Dec 31, 2008	\$2,009.10m	11	\$253.1m	8	\$566.7m
Dec 31, 2009	\$2,583.46m	7	\$154.9m	3	\$36.8m
Dec 31, 2010	\$3,122.55m	11	\$358.0m	1	\$35.2m
Dec 31, 2011	\$3,509.70m	17	\$515.1m	2	\$173.6m
Dec 31, 2012	\$7,263,48m	33	\$3,002.1m	0	0
June 30, 2013	\$8,840.30m	15	\$1,150.7m	1	\$28.7m

10. Please state the market value of assets under management for the recommended product for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained, as well as accounts and assets lost over each of these periods.

	Specified International Value Equity Product				
	Market Value (Millions)	Accounts Gained	Assets Gained (Millions)	Accounts Lost	Assets Lost (Millions)
Dec 31, 2008	\$808.25m	7	\$168.7m	8	\$566.7m
Dec 31, 2009	\$1,218.62m	6	\$154.9m	3	\$36.8m
Dec 31, 2010	\$1,489.73m	5	\$108.2m	0	0
Dec 31, 2011	\$1,544.74m	8	\$254.3m	1	\$163.8m
Dec 31, 2012	\$2,478.37m	7	\$593.2m	0	0
June 30, 2013	\$3,139.85m	4	\$729.9m	1	\$28.7m

#### International Value Equity Investment Services

11. Please provide the name of the product described in the remainder of this response.

International Equity.

12. Provide the following information on the firm's key members of the international value equity portfolio management team: names, titles and responsibilities, years on the product (please note any changes in roles below), years with firm, and years of investment experience. Please provide biographies and an organization chart.

		Yrs. w/	Yrs. W/	Yrs. Inv.
Name	Title	Product	Firm	Exp.
Bruce Campbell	Investment Chairman	26	26	43
Tony Cousins CFA	Chief Executive Officer and Chief	24	24	28
	Investment Officer			
Paul Simons CFA	Head of Portfolio Management, Asia	17	17	17
	Pacific			
Daniel McDonagh CFA	Head of Portfolio Management, Europe	16	16	16
	& UK			
Geraldine Arrigoni CFA	Portfolio Manager, Asia Pacific	10	10	12
Jun Yu CFA	Portfolio Manager, Asia Pacific	5	5	13
Stefan Bain ASIP	Portfolio Manager, Asia Pacific	1	1	12
Peter Moran CFA	Portfolio Manager, Europe	10	10	10
Nabil Irfan CFA	Portfolio Manager, Europe	8	8	13

# Bruce Campbell

# B Com (Hons)

# Investment Chairman

Bruce has over 40 years' experience in the international investment industry. After graduating from Melbourne University in 1969 Bruce managed the investment operations of an Australian based general insurance company for 12 years and then founded the predecessor company to Pyrford in Melbourne in 1982 – at that stage as part of the multi-national Elders IXL group. In 1987 Bruce moved the investment operations to London and in 1991 headed the buy-out of the investment management subsidiary from the Elders organisation. At that time the company's name was changed to Pyrford International.

Bruce remained Chief Executive and Chief Investment Officer until 31<sup>st</sup> December 2010 at which time he took up the role of Investment Chairman.

# Tony Cousins MA (Hons), CFA Chief Executive Officer/Chief Investment Officer

Tony assumed the role of Chief Executive Officer and Chief Investment Officer on 1<sup>st</sup> January 2011.

Tony joined Pyrford in 1989 and was Director of Portfolio Management for Europe/UK until his promotion as Joint Chief Investment Officer in November 2009.

After graduating from Cambridge University in 1985 with a Bachelor of Arts, Tony joined Daiwa International Capital Management in London as an Equity Portfolio Manager having obtained his Master of Arts and CFA in 1990.

# Paul Simons

#### MA (Hons), CFA Head of Portfolio Management, Asia Pacific

Paul joined Pyrford's Asia team in 1996 after graduating from Oxford University with a degree in geography. He spent seven years covering South East Asia, Hong Kong, Taiwan, Korea, Australia and New Zealand before being promoted to the role of Portfolio Manager for Australia and New Zealand in 2003. Paul became a CFA charter holder in 2000, as well being awarded his Master of Arts. Paul was appointed Head of the Asia Pacific team and a member of the Investment Strategy Committee in 2008.

#### Daniel McDonagh

#### MA (Hons), CFA

Head of Portfolio Management, Europe/UK

Daniel started at Pyrford in October 1997 after graduating from Oxford University with a degree in Politics and Economics. Daniel worked as a Portfolio Manager and Senior Research Analyst within the European portfolio management team until his appointment as head of the team in November 2009. He became a CFA charter holder in 2000.

#### Geraldine Arrigoni BSc (Hons), CFA Portfolio Manager

Geraldine joined Pyrford in June 2003 to work as a Research Analyst within the Asia portfolio management team. Prior to joining Pyrford, Geraldine worked for Cazenove Fund Management in London as an Investment Analyst (Asian region) for two years and before that she was employed as a Trainee Actuary at PricewaterhouseCoopers. Geraldine is a Maths graduate from the University of Wales (Cardiff) and became a CFA charter holder in July 2003.

#### Stefan Bain *MSc, ASIP* Portfolio Manager

Stefan joined Pyrford in June 2012 as a Portfolio Manager covering Japanese and South Korean companies within the Asian portfolio management team. Prior to joining Pyrford Stefan worked for F&C Fund Management in London for five years as a Director of Japanese Equities, and at Royal London for six years as Japanese fund manager. Stefan has a degree in Investment Analysis from the University of Stirling and is an Associate of the Institute of Investment Management and Research.

# Peter Moran

# MA (Hons), CFA

#### **Portfolio Manager**

Peter started at Pyrford in October 2003, having spent 8 months with Merrill Lynch. In 2001 he graduated from Oxford University with a degree in History. Peter is a Portfolio Manager within the European portfolio management team. Peter became a CFA charter holder in 2007.

# Nabil Irfan

BSc (Hons), CFA

International Value Equity Manager Search Response Summary- Pyrford Milliman, Inc. Page 40

# **Portfolio Manager**

Nabil joined Pyrford in September 2005 to work as a Research Analyst within the European portfolio management team. Prior to joining Pyrford, Nabil worked for 5 years at JPMorgan Asset Management in Equity Research as a utilities analyst, and before that, as a Research Assistant in their technology, media and telecoms (TMT) team. Nabil graduated from University College London with an Economics degree in September 2000 and became a CFA charter holder in 2004.

#### Jun Yu *BA, CFA, MBA* Portfolio Manager

Jun joined Pyrford in October 2008 to work as a research analyst within the Asia portfolio management team. Prior to joining Pyrford, Jun worked in Asian equity sales for 8 years in London, most recently spending over two years with Daiwa SMBC Europe. Before moving to Europe, Jun worked with LVMH group in China. Jun's first degree is in Literature from Shanghai International Studies University and she gained her MBA from INSEAD in 2000.

13. What has been the level of personnel turnover for investment professionals at both the firm and product levels over each of the last five years and the current year to date? Please explain any losses at the product level.

Year	Firm-wide		Product Specific	
	Employees Added	Employees Lost	Employees Added	Employees Lost
Dec 31, 2008	2	1	1	1
Dec 31, 2009	0	0	0	0
Dec 31, 2010	0	0	0	0
Dec 31, 2011	0	0	0	0
Dec 31, 2012	1	1	1	1
June 30, 2013	0	0	0	0

14. As of June 30, 2013, provide the number of accounts, assets under management, median account size, and number of portfolio managers in the product.

\$ Assets	Number of	Median	Largest	Number of	Number of
Under Mgt	Investors	Client Size	Client Size	Portfolio Mgrs	Inv Analysts
\$3,139.85m	47	\$21.70m	\$632.80m	9	0

15. Please provide the following information as of June 30, 2013 for each vehicle through which your international value product is offered:

	Offered? (Y/N)	Assets (\$MM)	Acct Minimum
Separate Account	Y	\$1,481.30m	\$50m
Commingled Fund	Y	\$740.40m	\$1m
Mutual Fund	Y	\$918.15m	\$2m
Other (specify)			

16. Is there a limit to the amount of assets the firm will manage in this product? If yes, please specify.

They have no capacity constraints at present in any of their products. Although their investment style is not size limiting, the maximum number of clients they can manage would ultimately be restricted by their aim to maintain the highest levels of client service.

It should be noted that Pyrford's portfolio management methodology, together with its highly computerised back office, is designed to cope with far greater client numbers and assets under management than is presently the case. Consequently, they do not anticipate declining any new business for the foreseeable future.

17. What internal controls are in place to monitor market timing activity in particular and late trading in your firm's funds? Who monitors these activities? Have there been any trading policy violations over the past five years?

For mutual funds sub-advised by Pyrford, the Mutual Fund Board has approved policies that seek to discourage frequent purchases and redemptions and curb the disruptive effects of frequent trading (the Market Timing Policy). Pursuant to the Market Timing Policy, a Fund may decline to accept an application or may reject a purchase request, including an exchange, from an investor who, in the sole judgment of the Adviser, has a pattern of short-term or excessive trading or whose trading has been or may be disruptive to the Fund. The Funds, the Adviser, and affiliates thereof are prohibited from entering into arrangements with any shareholder or other person to permit frequent purchases and redemptions of Fund shares.

The Market Timing Policy does not apply to the money market funds, which are typically used for cash management purposes and invest in highly liquid securities. However, the Adviser seeks to prevent the use of the money market funds to facilitate frequent trading in other BMO Funds in violation of the Market Timing Policy.

Each Fund monitors and enforces the Market Timing Policy through:

- the termination of a shareholder's purchase and/or exchange privileges.
- selective monitoring of trade activity.
- the imposition of a 2.00% short-term redemption fee for redemptions or exchanges of shares of a Fund, if applicable to such Fund, within 30 days after purchase of such shares, determined on a first-in, first-out basis.

They confirm there have been no significant trading policy violations over the past five years.

#### **International Value Equity Investment Philosophy**

18. Briefly describe the investment philosophy/strategy, style and distinguishing characteristics of this product.

Their investment philosophy is based on a quality and value-driven, absolute return approach, with both topdown and bottom-up elements included. At the country level they seek to invest in countries that offer an attractive market valuation relative to their long-term prospects (as determined by their research) and avoid countries that do not. At the stock level they identify companies that offer excellent value relative to their inhouse forecast of long-term (5 years) earnings growth. This approach produces long-term investment returns characterised by low absolute volatility and excellent downside protection.

They believe their product has the following competitive advantages:

- Pyrford has a highly experienced and stable investment team with an average tenure at Pyrford of nearly 12 years. Four of the five senior investment professionals have worked together at Pyrford for over 15 years.
- Pyrford has an extremely disciplined and proven investment methodology rooted in fundamentals and common sense.
- Pyrford's approach is risk averse it is only concerned with absolutes, not relatives. By diligently adhering to this approach the 'relatives' take care of themselves over the long-term.
- Pyrford invests a great deal of its time in macro-economic research and analysis this is becoming a rarity in the investment management industry. This research plays a key role in helping Pyrford's clients minimise downside risk by allowing sensible strategic moves.
- Pyrford has the advantage of operating as a 'boutique' but the ability to tap the wider and extensive fund management and research capabilities of its parent as required.
- 19. Does your firm's international value equity discipline have a growth, value or core style bias?

Their product has a quality and value style bias.

20. Explain the firm's portfolio approach to the level of cash and equivalent holdings. Specify the normal, maximum and minimum levels of cash holdings.

Cash is used purely for working capital purposes and typically ranges between 2 and 6% of the portfolio value. The maximum allowable holding of cash is 10% and the minimum is 0%.

21. Briefly state how your firm defines an investable international value equity market for the purposes of this product.

The main criteria used to determine whether a market is of institutional quality are as follows:

- Generally accepted accounting principles.
- Adequate market regulation and protection for minority investors.
- Reliability of transaction settlement and dividend receipt.
- Absence of sovereign risk.
- Adequate trading liquidity.
- Accurate and transparent pricing information source.

Pyrford is only interested in investing in markets of sound institutional quality. For a new market to be added to Pyrford's investible universe, the relevant regional specialist portfolio manager must justify its inclusion to Pyrford's Investment Strategy Committee.

22. How does your firm assess the liquidity of individual equity markets?

One of the factors always considered when deciding to include a market in their universe is whether the market has sufficient liquidity for their purposes. A market would not be in the investable universe if they believe liquidity constraints would hamper their country allocation strategy.

For each market they have a minimum market capitalisation which companies must meet in order to qualify for their universe. The exact cut-off for each country is specific to each market but will be limited to medium and large companies in that country. In addition, the company will only be included in their universe if they can make a meaningful investment on behalf of their clients without owning more than 2% of the free float of that company. This combination of market capitalisation and free float criteria ensures that they are not invested in illiquid securities.

23. Will your firm invest in emerging equity markets in this investment discipline? If yes, specify the typical portfolio percentage as well as maximum and current (6/30/2013) percentage.

Their investment universe includes the following emerging market territories:

- Malaysia.
- Taiwan.
- Thailand.
- Indonesia.
- South Korea.

Their portfolio currently invests in Malaysia and Taiwan and the current holding as at 30<sup>th</sup> June 2013 is 7.69%.

The maximum holding in emerging market territories is 20% and the average for 3 years to 30<sup>th</sup> June 2013 is 6.54%. The highest holding during that period was 7.71%.

24. What securities other than common stock and cash equivalents will be held?

The portfolio contains only ordinary shares with some frictional cash balances.

25. Does your firm engage in currency hedging in this strategy? If yes, is there a maximum hedge ratio for major currencies?

Hedging is initiated when destination currencies become more than 25% overvalued versus the portfolio base currency on a purchasing power parity (PPP) basis. Calculations of PPP are prepared internally using wholesale prices and regression analysis over the very long-term - typically around 40 years. They find this a very powerful and predictive tool. Hedges are removed when the destination currency falls to the 5% overvaluation level on the same basis. This policy is subject to overriding considerations of data veracity/reliability, liquidity, client guidelines and other pertinent investment issues - in particular they take into account the direct cost of hedging.

The goal of the strategy is to capture the upside in a currency but avoid the downside - in keeping with Pyrford's overall capital preservation philosophy.

The maximum hedge in the portfolio is 50%.

26. State typical benchmark(s) used to measure the fund's performance. Which do you believe is best?

They have always used the MSCI EAFE index for the strategy and their clients have typically agreed to adopt this benchmark measure. They believe that this index is the most representative indicator for investment in the International Equity product. However, they would be happy to be measured against another index such as MSCI ACWI ex-US Index or a value index.

27. What is the expected tracking error of this product compared to the MSCI ACWI ex-US Value Index?

They do not set any targets in respect of tracking error. However, they expect tracking error to range between 5 and 8% per annum.

28. Does this product target a particular level of volatility (index-relative or absolute)? If so, please describe how the volatility target is implemented.

They do not target levels of volatility for their strategies. Their quality and value orientation generally leads to low levels of absolute volatility. Absolute volatility since inception to  $30^{th}$  June 2013 was 14.20%.

#### **International Value Equity Research Process**

29. Describe the process for identifying attractive securities. List screening steps and fundamental security requirements. What role does macro-economic research play in this process? Describe the analytical research performed on individual securities.

The process for identifying suitable securities for the portfolio is in three stages, as follows:

# a) Investment Universe Screening

The universe for the strategy comprises 2,760 stocks, made up as follows:

•	European region	600 stocks (DJStoxx 600),
•	Asia Pacific region	2,160 stocks (various indices in the region),

During the stock selection process they look for the following features of a company before they consider investing:

Firstly, they will only consider stocks that fulfil these requirements:

- Market cap minima US\$2bn (Europe) or US\$1bn (Asia Pacific).
- Interest cover minimum of 3x.

Secondly, they narrow down the list of stocks by assessing the following quantitative factors:

- Return on Equity (ROE).
- Debt/equity ratio
- Dividend Yield.

Once a manageable list of stocks is produced, Pyrford's fundamental research is undertaken. They focus on companies with sustainably high ROE.

# b) Top-Down Country Allocation

Country allocations are based upon a forward (5 year) estimate of country level earnings per share (EPS) growth which is then related to the 'country' market valuation as evidenced by the average dividend yield. The theory is quite simple – at the country (or stock) level the return is made up of the dividend yield + the long term EPS movement + the movement in the price earnings ratio. The critical part of the analysis is therefore Pyrford's evaluation of the potential for EPS growth over its 5-year time horizon. This is the principal function of the Investment Strategy Committee which meets at a minimum once each week.

30. What is the number of securities regularly followed by security analysts and/or portfolio managers?

From the universe detailed in the above response, the Portfolio Managers will closely follow approximately 250 companies.

31. Describe any processes in place to detect accounting irregularities at companies held in the portfolio.

During the stock selection process, they conduct rigorous analysis of accounting data produced by the companies they are investigating. Whilst they believe that the role of the auditor is to provide the primary quality control on the accounting records of the company, they would track extraordinary occurrences, for example excessive changes in accounting policies which might be indicative of undesirable practices.

32. Does your firm use any technical and/or price momentum research? If so, how and why?

This is not applicable to their process.

# Portfolio Construction and Management

33. Describe in detail the portfolio construction and management process. If a team approach is used, state the names of the team members and explain the role(s) of each team member.

The first stage of the portfolio construction process is the country/currency allocation decision, which is taken by the Investment Strategy Committee, as detailed in the response to question 29. Once securities have been identified as suitable for investment, stock weights within each country portfolio are determined after further consideration of the following:

- the long-term value assessment for each stock (dividend yield plus Pyrford's forecast five year EPS growth).
- the confidence levels around forecasts made.
- the liquidity of each stock.

The team members responsible for the process are:

Name	Title
Bruce Campbell *	Investment Chairman
Tony Cousins CFA *	Chief Executive Officer & Chief Investment Officer
Paul Simons CFA *	Head of Portfolio Management, Asia Pacific
Daniel McDonagh CFA *	Head of Portfolio Management, Europe & UK
Geraldine Arrigoni CFA	Portfolio Manager, Asia Pacific
Jun Yu CFA	Portfolio Manager, Asia Pacific
Stefan Bain ASIP	Portfolio Manager, Asia Pacific
Peter Moran CFA	Portfolio Manager, Europe
Nabil Irfan CFA	Portfolio Manager, Europe

\* Denotes member of the Investment Strategy Committee with responsibility for country and currency allocation decisions.

34. What is the current number, typical number and range of securities held in the product?

As of June 30, 2013	Typical Number	Range
76	N/A	60-95

35. As of June 30, 2013, state the typical portfolio allocation to equities in the market capitalization ranges shown below. Also, please specify the possible ranges and typical allocations for each category.

Market Capitalization Range	Allocation as of June 30, 2013	Typical Allocation	Possible Range of Allocation
Less than \$100 million	0%	0%	0%
Between \$100 mil. and \$500 mil.	0%	0%	0%
Between \$500 mil. and \$1 bil.	0%	0%	0%
Between \$1 bil. and \$3 bil.	6.44%	0 – 100%	0 – 100%
Between \$3 bil. and \$5 bil.	7.00%	0 – 100%	0 – 100%
Between \$5 bil. and \$10 bil.	14.06%	0 – 100%	0 – 100%
Between \$10 and \$20 billion	19.58%	0 – 100%	0 – 100%
Greater than \$20 billion	52.92%	0 – 100%	0 – 100%
Median Market Capitalization	\$18,141m	0 – 100%	0 – 100%
Weighted Average Market Capitalization	\$51,834m	0 - 100%	0 - 100%

There are no target or typical allocations for ranges of market cap in the portfolio.

36. Describe the firm's sell discipline.

All portfolio holdings are continuously monitored by the portfolio management team and stocks are sold for one of three reasons:

- The company's share price rises to such an extent that the sum of its dividend yield and forecast longterm (5 year) earnings per share growth falls to a level below that of the total local market or alternative stocks within that market.
- Changes occur in company strategy, circumstances or industry which in their view will negatively affect its ability to generate adequate long-term earnings per share growth.
- They have made a country allocation change and have decided not to maintain client funds in the

International Value Equity Manager Search Response Summary- Pyrford Milliman, Inc. Page 46 country or have reduced the allocation to a country.

37. What has been the average international value equity turnover for each of the last five years and the current year to date?

Year	Turnover (annual)
2008	33.17%
2009	32.80%
2010	26.59%
2011	20.91%
2012	18.71%
YTD	11.90%

# **Investment Management Fees**

38. Provide your fee schedules for the international equity product, both for commingled/mutual funds and separate accounts. If a commingled fund is proposed, what are the custody costs of the trust and are they an additional fee that is directly charged to the client? Please specify who custodies the assets. Are investment management fees negotiable?

# Separate Account (minimum investment \$50m)

	Market Value	Fee in Percent
First	\$50m	0.70%
Next	\$50m	0.50%
Over	\$100m	0.35%

The above fees do not include custody charges which are payable by the client direct to its appointed custodian.

(	Commingled Fund (minimum investment \$1m)		
Iarket Value	Fee in Percent		
5m	1.00%		
15m	0.95%		
80m	0.75%		
100m	0.50%		
1	arket Value 5m 15m 30m 100m		

The above fees are inclusive of custody charges. Custody is provided by State Street Bank & Trust Company.

# BMO Pyrford International Stock Fund (minimum investment US\$2m) - ticker MISNX

A mutual fund offered through their partnership with BMO Funds. The management fee is a flat 0.80% per annum, whilst the total expense ratio (TER) is capped at a maximum of 0.99% per annum.

In terms of negotiating management fees, they would be pleased to discuss alternative fee options once they understand specific portfolio requirements and have confirmed the expected size of investment. They are open to negotiating fees to the extent that their fees must be consistent across clients. As the potential account value increases, they would be able to show greater flexibility in this regard.

39. Has the firm entered into incentive fee arrangements? If so, provide details.

Pyrford is not a strong believer in performance related fees as it suggests that a manager can 'try harder' if it is remunerated on an incentive basis. It is their belief that they should be paid a fair fee for the work they perform. However, if a client specifically requires this element in the fee structure, they would be happy to discuss this further.

40. Does your firm use any service, information, or merchandise paid for with directed commissions? If yes, please list the services received from such commissions, and the percentage of fees so directed.

Pyrford has a policy of **not** using soft dollars as a method of payment for any services.

41. Please provide copies of your firm's Form ADV Parts I and II.

Please refer to Appendix 1.

#### International value Equity Investment Performance

42. Provide quarterly historical performance for your product using the attached form. Do not include any simulated data. Returns should be total portfolio, time-weighted rates of return **both gross and net** of investment management fees. For year-end periods, also provide the market value of assets and number of accounts. If you offer both a commingled product and separate accounts, provide performance for both.

Quarterly performance returns have been added to the table in the following section. The performance returns are representative of both separate accounts and their pooled/mutual fund.

43. Please specify the methodology for constructing the firm's composite performance.

Performance measurement and attribution is managed by Nicholas Miller, Senior Performance Analyst. Nicholas conducts a full reconciliation of the valuation and transaction data between the accounting system (FMC) and the performance system (supplied by BiSam) on a monthly basis.

44. Are returns audited? By whom? Are returns CFAI/AIMR compliant? For what time period? Please provide the most recent statement of verification by an independent third party.

Pyrford's performance returns have been audited as GIPS compliant by Grant Thornton LLP as at 30<sup>th</sup> September 2012. A copy of the relevant verification letter is attached as Appendix 2.

#### INTERNATIONAL VALUE EQUITY INVESTMENT MANAGER QUESTIONNAIRE As of June 30, 2013

#### **Organizational Background**

1. What is the firm name, address, and telephone and fax numbers of your main and branch offices? What investment activity takes place at each location?

Schroders plc. 31 Gresham Street London, EC2V 7QA United Kingdom Main: +44 (0)20 7658 6000 Fax: +44 (0)20 7658 6965

Schroder Investment Management North America Inc. 875 Third Ave New York, NY 10022 Main: (212) 641-3800 Fax: (212) 632-2954

They operate on a global scale with 34 offices in 27 countries. Schroders accesses clients in the traditional areas of the UK, Europe, North America and Japan, where the demand for asset management services is long established, as well as the fast-growing savings pools in emerging and more recently developed economies in the Middle East, Asia Pacific and Latin America.

Key members of the QEP Investment Team are located in their London office. However, please note the client service team for this mandate is located in their New York Office.

2. What is the name, position, telephone and fax numbers, and e-mail address of the firm's new business contact and database/questionnaire contact?

	New Business Contact	Questionnaire Contact
Name	Jamie Macmillan	Same
Title	US Institutional Business Development	Same
	Director	
Office	Schroder Investment Management	Same
	North America Inc.	
Phone	(347) 558-5165	Same
Fax	(212) 632-2954	Same
Email	jamie.macmillan@schroders.com	Same

3. When was your firm founded? When was it registered with the SEC?

Schroders plc, founded in 1804, is a global asset management company with more than 200 years of experience in world financial markets.

Schroder Investment Management North America Inc. became an SEC-registered Investment Adviser in 1980 through its SEC-registered predecessor firm, Schroder Capital Management International Inc.

4. Describe the firm's ownership structure and explain any changes over the past five years. Discuss the firm's relationship with the parent and affiliated companies, if any.

Schroders is one the largest asset managers listed on the London Stock Exchange. Their shares have been

listed since 1959. The Schroder family holds 47.75% of the Schroders voting equity in various nominee accounts and personal holdings. This promotes stability for their clients. The table below provides details of holdings greater than 3% as of December 31, 2012:

	Class of shares	No. of voting rights held indirectly	% of voting rights held indirectly
Vincitas Limited*	Ordinary	60,724,609	26.87
Veritas Limited*	Ordinary	39,218,470	16.28
Flavida Limited#	Ordinary	60,951,886	26.97
Fervida Limited#	Ordinary	40,188,706	17.78
Harris Associates L.P.	Ordinary	15,969,200	7.07

The aggregate Schroder family interests have remained the same for many years.

Schroders employees' rights to and ownership of shares through share schemes as a percentage of total shares in issue are approximately 6%.

They aim to ensure that the interests of their employees are aligned with those of their shareholders by deferring part of the annual bonus paid to key employees in the form of Schroders equity. This deferred equity vests over a three year period, ensuring that their key employees have an incentive to remain with us. Around 24% of employees received an award of Schroders equity from the 2012 incentive awards, spread across almost all of the locations in which they operate.

Schroder Investment Management North America Inc. is 100% directly owned by Schroder U.S. Holdings Inc., which is an indirect, wholly owned subsidiary of Schroders plc.

There have not been any significant (over 3%) ownership changes over the past five years.

5. State the carriers and the limits of errors and omissions and fiduciary liability insurance.

Schroders maintains insurance coverage at the parent level that covers its U.S. affiliates. They have insurance cover arranged with AIG Europe Ltd and others covering professional negligence (including errors & omissions), fraud and electronic crime committed by employees and in some circumstances external persons. The sum insured is greater than £25 million (approx. \$40.6 million) for each and every loss and in the annual aggregate and with a deductible of £100,000 (approx. \$162,550).

Professional Professional	Professional Indemnity Insurance held (Fidelity/Crime & Professional/E&O)				
Insurers	AIG Europe Ltd and Others				
Address	58 Fenchurch Street				
	London				
	EC3M 4AB				
	Greater than $\pounds 25$ million for each and every loss and in the annual aggregate and with a deductible of $\pounds 100,000$				
Extent of	(approx. \$162,550) (as part of Crime and Professional				
Cover	Cover Indemnity Program) (approx. \$40.6 million)				
Expiry					
Date	December 30, 2013				

[Note: Translated into \$ using the 2012 year-end conversion rate  $1.6255 = \pounds 1.00$ ]

6. Describe any litigation regarding your firm's investment activities over the past 5 years. Is the firm

expecting new litigation?

#### Schroders plc

Certain Schroders group undertakings may, from time to time, be parties to litigation. The Directors consider that none of these actions, either individually or in aggregate, have in the past or are likely to have a material adverse effect on the Group's financial position or the ability of the firm to conduct its business.

#### Schroder Investment Management North America Inc.

Schroder Investment Management North America Inc. (SIMNA) has not been involved in any business litigation or other legal proceedings related to investment activities in the past five years. However, they believe it prudent to make you aware that in 2008 SIMNA conducted an internal investigation of potential compliance violations by an employee. Following the internal investigation, SIMNA reported the matter to the SEC. The individual has not been an employee of SIMNA since 2008. On May 11, 2010, the SEC commenced administrative proceedings against this former employee. On April 21, 2011 an administrative law judge issued a judgment against this former employee.

Schroders does not anticipate any new litigation at this time.

7. Describe any judgments against your firm by governmental and regulatory agencies over the past 5 years. Also describe any current investigations.

Schroders group and related undertakings may be subject to regulatory and other inquiries from time to time. These matters are usually confidential and cannot be disclosed save in so far as they affect the ability of the undertakings to conduct their business.

Schroder Investment Management North America Inc. has not been party to any governmental or regulatory judgments over the past five years.

8. Please provide copies of your firm's Form ADV Parts I and II.

Please refer to **Appendix I** for a copy of their Form ADV Part I, Advisory Brochure and Investment Supplement.

9. Please state the market value of assets under management for the firm for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained, as well as accounts and assets lost over each of these periods.

Please note as of the submission date of this questionnaire, assets under management have yet to be released publically. They anticipate  $2^{nd}$  quarter assets information will be available for release in the first week of August.

	Total Firm Assets						
	Market Value \$(Millions)	# Accounts Gained	Assets Gained \$(Millions)	#Accounts Lost	Assets Lost \$(Millions)		
Dec 31, 2008	158,437	534	13,509	400	12,215		
Dec 31, 2009	239,624	538	16,237	355	10,146		
Dec 31, 2010	307,897	708	31,972	391	7,395		
Dec 31, 2011	291,008	411	18,552	264	8,416		
Dec 31, 2012	344,545	343	18,254	291	8,339		
June 30, 2013	Not Available	Not Available	Not Available	Not Available	Not Available		

Schroders Group assets under management as of March 31, 2013 were \$359.17 billion.

10. Please state the market value of assets under management for the recommended product for each of the past five calendar years as well as the year-to-date ending June 30, 2013. Also, state accounts and assets gained,

as well as accounts and assets lost over each of these periods.

The International Value strategy is one of a group of strategies totaling \$35 billion that is managed by the same team and investment process

	Specified International Value Equity Product					
	Market Value (Millions)	Accounts Gained	Assets Gained (Millions)	Accounts Lost	Assets Lost (Millions)	
Dec 31, 2008	8.1	0	0	0	0	
Dec 31, 2009	11.1	0	0	0	0	
Dec 31, 2010	13.7	0	0	0	0	
Dec 31, 2011	16.8	0	0	0	0	
Dec 31, 2012	409.6	1	223.1	0	0	
June 30, 2013	497.6	0	0	0	0	

International Value Equity Investment Services

11. Please provide the name of the product described in the remainder of this response.

The name of the proposed strategy is QEP Global ex-US Value.

12. Provide the following information on the firm's key members of the international value equity portfolio management team: names, titles and responsibilities, years on the product (please note any changes in roles below), years with firm, and years of investment experience. Please provide biographies and an organization chart.

		Yrs. w/	Yrs. W/	Yrs. Inv.
Name	<u>Title</u>	Product	<u>Firm</u>	Exp.
Justin Abercrombie	Head of QEP Investment Team	17	17	20
David Philpotts	Head of Research, Portfolio Manager	11	15	23
Stephen Langford	Senior Analyst & Portfolio Manager	10	10	14
Stuart Adrian	Senior Analyst & Portfolio Manager	0.2	0.2	16

13. What has been the level of personnel turnover for investment professionals at both the firm and product levels over each of the last five years and the current year to date? Please explain any losses at the product level.

Year	Firm-	wide	Product Specific		
	Employees Added	Employees Lost	Employees Added	Employees Lost	
Dec 31, 2008	35	60	5	3	
Dec 31, 2009	13	42	1	0	
Dec 31, 2010	17	34	1	0	
Dec 31, 2011	27	9	2	2	
Dec 31, 2012	27	30	2	1	
June 30, 2013	Not Available	Not Available	2	0	

14. As of June 30, 2013, provide the number of accounts, assets under management, median account size, and number of portfolio managers in the product.

\$ Assets	Number of	Median	Largest	Number of	Number of
Under Mgt	Investors	Client Size	Client Size	Portfolio Mgrs	Inv Analysts
497.6	2	n/a	391.7	6*	12

15. Please provide the following information as of June 30, 2013 for each vehicle through which your international value product is offered:

Offered? (Y/N)	Assets (\$MM)	Acct Minimum	

International Value Equity Manager Search Response Summary- Schroders

Separate Account	Y	391.7	\$100 Million
Commingled Fund	Y*	-	\$1 Million
Mutual Fund	Y	105.9	\$250,000 (Investor Shares) \$2,500 (Advisor Shares)
Other (specify)	-	-	-

16. Is there a limit to the amount of assets the firm will manage in this product? If yes, please specify.

The QEP Global ex-US Value strategy is highly scalable on account of its diversified approach and broad investment universe. They estimate that the strategy has at least \$10 billion in capacity and is not currently constrained.

17. What internal controls are in place to monitor market timing activity in particular and late trading in your firm's funds? Who monitors these activities? Have there been any trading policy violations over the past five years?

Provided below are their Procedures to Discourage Market Timing.

#### **Introduction/General Policy**

The Funds and Schroder Investment Management North America Inc. (SIMNA) believe it is in the best interests of shareholders to maintain policies and procedures to discourage short-term trading by those seeking to benefit from pricing and market inefficiencies at the expense of long-term investors. The Funds have adopted the following procedures to monitor trading in the Funds.

#### Procedures

- The Board has imposed redemption fees of 2% for redemptions within 2 months of purchase of funds in instances where it believes that short term trading may adversely affect management of the fund or otherwise harm long term holders.
- The Board has determined to utilize a third party service provider to provide data concerning fair valuation of foreign securities held by international funds. That data will be used to fair value securities under circumstances approved by the Trustees.
- SIMNA and the Funds' distributor review reports of large trades (\$50,000 and up) from the Funds' transfer agent, and perform surveillance of multiple trade activities from specific dealers and suspicious trades through omnibus accounts.
- SIMNA and the Fund's distributor may ban, suspend, or place limitations on, any timing activity, if, following
  investigation, it believes that the trading activity in the account may adversely affect management of the fund or
  otherwise harm long term holders.
- No Later than the effective date of Rule 22c-2, SIMNA or the distributor for the Funds will on behalf of the Funds enter into a written agreement with each dealer or other financial intermediary, requiring that dealer or intermediary to:
- Provide, promptly upon request by the Funds, the taxpayer Identification relating to all shareholders that purchased, redeemed, transferred, or exchanged shares held through an account with the dealer or intermediary, and the amount and dates of such shareholder purchases, redemptions, transfers, and exchanges; and
- Carry out any instructions from the Funds or its distributor to restrict or prohibit further purchases or exchanges of fund shares by any shareholder who the Fund or their distributor has identified as having engaged in transactions in Fund shares that violate this policy.
- SIMNA and the Distributor for the funds will retain on behalf of the Funds the current written agreements entered into pursuant to this policy and any other agreement in effect at any time within the prior six years in an easily accessible place.

The Trust recognizes that SIMNA and the distributor for the Funds may not always be able to detect or prevent all market timing activity or other trading activity that may disadvantage the Funds or their shareholders.

The CCO will report to the Board no less often than annually on the status and effectiveness of the procedures

to discourage market timing.

#### **International Value Equity Investment Philosophy**

18. Briefly describe the investment philosophy/strategy, style and distinguishing characteristics of this product.

Schroder QEP Global ex-US Value is an active, index-unconstrained, value-based strategy designed to deliver higher long-run returns with low stock-specific risk. Analyzing a universe of around 12,000 stocks, the team uses a bottom-up process to construct a highly diversified portfolio typically containing over 500 stocks.

Stock selection for this strategy is grounded in the analysis of company fundamentals indicating Value (dividends, cashflow, sales, assets and earnings). Portfolios will exhibit a style bias towards these factors. They believe that Value outperforms over the long term but investment decisions are also informed by the team's analysis of business quality (determined on measures of Profitability, Stability and Financial Strength). This helps to minimize exposure to 'value traps' or, in other words, stocks which may be cheap for good reason.

They believe that intelligent portfolio construction can greatly enhance the ability to generate repeatable longrun returns. They reduce stock specific risk by building a highly diversified portfolio, but with no less conviction. Recognizing the limitations of market cap-weighted indices, they take an index-unconstrained approach which enables us to invest wherever they find the best value opportunities and to capitalize upon those which may be missed by other global managers, including those at the lower end of the market cap spectrum and across emerging markets.

19. Does your firm's international value equity discipline have a growth, value or core style bias?

As noted in their response to question 18 above, QEP Global ex-US Value is a value-based strategy.

20. Explain the firm's portfolio approach to the level of cash and equivalent holdings. Specify the normal, maximum and minimum levels of cash holdings.

They typically pursue a fully invested policy and cash usually represents less than 1% of their portfolios. Cash is kept to the minimum required for efficient portfolio management and is not used as a tactical asset.

21. Briefly state how your firm defines an investable international value equity market for the purposes of this product.

They invest from the broadest possible universe of stocks while screening for sufficient liquidity to trade without undue market impact. For this strategy the universe consists of around 12,000 companies of all sizes across approximately 40 countries, including both developed and emerging markets.

22. How does your firm assess the liquidity of individual equity markets?

Awareness of liquidity considerations is built into the QEP investment process at every stage. Liquidity risk is managed via their proprietary Market Impact Model, which adjusts the weights for stocks in more illiquid markets or which are smaller or more volatile. They further manage liquidity risk by typically only investing in stocks which have traded an average of \$100,000 per day over the preceding 100 days and generally restricting a single trade to a maximum of 20% of the Average Daily Volume (ADV) traded.

23. Will your firm invest in emerging equity markets in this investment discipline? If yes, specify the typical portfolio percentage as well as maximum and current (6/30/2013) percentage.

As an unconstrained strategy, QEP Global ex-US Value can invest right across their stock universe (with the exception of America), which covers around 40 countries. One of the strengths of their approach is that

they have the flexibility to invest as much or as little in emerging markets as reflects the Value opportunities currently available there.

They place an upper limit on the emerging markets weight of 20% and their long-run average exposure is 11.0%. The graph below illustrates their historic emerging markets exposure in the QEP Global ex-US Value strategy, broken down by region.



#### **Emerging Markets by Region**

24. What securities other than common stock and cash equivalents will be held?

They typically invest in common stocks, preferred stocks, American Depository Receipts (ADRs), Global Depository Receipts (GDRs), ETFs, cash, index futures and currency forwards (the latter two only for the purposes of efficient portfolio management and risk reduction).

25. Does your firm engage in currency hedging in this strategy? If yes, is there a maximum hedge ratio for major currencies?

They make use of currency hedging periodically, specifically where they wish to partially hedge currency risk in markets where returns are at risk of being reduced by unfavorable currency moves. In order to mitigate portfolio risk in countries where they are either overweight or underweight the benchmark they have the ability to hedge currency exposure back towards the benchmark. In order to maintain a diversified currency exposure and not subsequently increase the base currency exposure, they may hedge an overweight into another currency where they are underweight or vice versa.

The size of each hedging position is influenced by the size of the position relative to the benchmark in the underlying equities, but the judgment of how much of that exposure to hedge lies with the discretion of the portfolio management team.

26. State typical benchmark(s) used to measure the fund's performance. Which do you believe is best?

The QEP Global ex-US Value strategy is index-unconstrained and therefore a benchmark is used for performance comparison purposes only. Suitable benchmarks include the MSCI EAFE Index and the MSCI AC World ex-US Index.

Schroders would be willing to consider being measured against a Value index.

27. What is the expected tracking error of this product compared to the MSCI ACWI ex-US Value Index?

The strategy does not explicitly target tracking error, but they anticipate that the long run ex post figure will typically be around 4% to 5% p.a. when measured against the MSCI EAFE Index. When measured against the MSCI ACWI ex-US Value Index, the strategy has seen an ex post (realised) tracking error of 3.65% p.a.\* over the past five years.

28. Does this product target a particular level of volatility (index-relative or absolute)? If so, please describe how the volatility target is implemented.

The QEP Global ex-US Value strategy does not target volatility specifically and it will vary over time with the opportunities available.

#### **International Value Equity Research Process**

29. Describe the process for identifying attractive securities. List screening steps and fundamental security requirements. What role does macro-economic research play in this process? Describe the analytical research performed on individual securities.

#### Stage 1. Global Value Rank

To maximize the potential investment opportunity, the team analyses as broad a universe as possible - 12,000 stocks of all sizes (screened for liquidity) across around 40 countries (excluding the US), including both developed and emerging markets. Each stock is assigned a Global Value Rank, determined by dividend forecast, cashflow, earnings, sales and assets.

The team will invest in stocks in the cheapest third of the Global Value Rank.

#### Stage 2. Stock Selection

The most significant aspects of their security selection process are their Market Impact Model and their calculation of each stock's probability of Value being realized. They determine security weights by establishing an equilibrium weight for each stock in the universe.

#### Stage 3. Portfolio Construction

A disciplined and sophisticated approach to portfolio construction is one of the team's most significant competitive advantages. Portfolio construction issues are integrated at all stages of the investment process, including at a research level.

The strategy is managed with an entirely bottom-up approach, with no top-down constraints imposed at the country, sector or stock level. They do, however, limit overall exposure to emerging markets to 20%.

30. What is the number of securities regularly followed by security analysts and/or portfolio managers?

In their approach, analysts focus on researching new investment strategies and enhancing their existing models, rather than covering securities individually. Therefore each analyst works on projects, which may be focused on one sector, country or region, but they are not assigned to areas of the market in the way that traditional analysts would be. They maintain considerable flexibility within the research team to allocate resources effectively as projects and other demands change.

Please refer back to their answer to question 29 for details on the universe covered and number of securities held.

31. Describe any processes in place to detect accounting irregularities at companies held in the portfolio.

As mentioned above their researches role is unlike that of a "traditional analyst" covering a sample of stocks. There are members of the research team, who focus more on accounting aspects. They ensure that a large part of the research effort is focused on data quality as, ultimately, the analysts, as the biggest users of the data, are best placed to check incoming data and recommend enhancements to this process.

32. Does your firm use any technical and/or price momentum research? If so, how and why?

No. they do not use external research into technical or momentum indicators but incorporate their own proprietary research into these factors and how they relate to other factors within their process.

Their research methodology is distinguished from the majority of managers by focusing on identifying factors and patterns that indicate likely outperformance for a group of stocks, rather than looking at companies one by one. This lends scalability, consistency and efficiency to their process.

The direction of their research is driven by the observations and insights of experienced investors, who are constantly looking to identify future opportunities and risks. They have great flexibility to allocate research resources wherever the team sees the greatest potential for adding value for their clients. Their research on financial quality described above is a good example of the way the team is always looking to develop new research insights according to changing market conditions.

#### Portfolio Construction and Management

33. Describe in detail the portfolio construction and management process. If a team approach is used, state the names of the team members and explain the role(s) of each team member.

Please refer to their response to question 29 above, for full details on their portfolio construction process. Provided below are details on the investment management team.

The team is organized across three key functions. The portfolio implementation team is based in London and is responsible for the day-to-day management of client portfolios. The research team is located in both London and Sydney and its members are responsible for researching new investment strategies and enhancing existing models. A product management team located in London and key international offices oversees all aspects of client service and marketing. Additionally, the QEP Investment Team utilizes Schroders' global resources for Trading, IT, Risk and Compliance.

# Portfolio Management Role

They adopt a team approach to portfolio management. Portfolio managers are responsible for the day-today management of each client portfolio. In essence, the role of portfolio managers is three-fold:

- 1) No "black box". Having experienced investors review every trade recommended by their allocator tool provides an important sense-check that the process is working as it should, guarding against unexpected or anomalous outputs.
- 2) **Risk budgeting.** Portfolio managers are responsible for shaping portfolios that are positioned to add value for their clients, by monitoring a range of characteristics and ensuring that risk profiles remain appropriate.
- 3) **Forward-looking research.** Portfolio manager insights into future opportunities and risks in global markets are a key source of idea generation for their research team, who investigate how to incorporate these insights in order to enhance their investment process.

#### **Research Analyst Role**

The QEP Investment Team consists of 27 members\*, located in London and Sydney, and is led by Justin Abercrombie, supported by David Philpotts (Head of Research) and Stephen Langford and Stuart Adrian (Senior Analysts & Portfolio Managers).

34. What is the current number, typical number and range of securities held in the product?

As of June 30, 2013	Typical Number	Range
1460	Typically holds at least 500 stocks and there is no maximum number.	Average number of holdings: 753*

35. As of June 30, 2013, state the typical portfolio allocation to equities in the market capitalization ranges shown below. Also, please specify the possible ranges and typical allocations for each category.

	Allocation as	Typical	Possible Range
Market Capitalization Range	of	Allocation	of Allocation
	June 30, 2013		
Less than \$100 million	0.66%	No typical allocation	No formal range
Between \$100 mil. and \$500 mil.	9.79%	No typical allocation	No formal range
Between \$500 mil. and \$1 bil.	7.99%	No typical allocation	No formal range
Between \$1 bil. and \$3 bil.	22.74%	No typical allocation	No formal range
Between \$3 bil. and \$5 bil.	9.02%	No typical allocation	No formal range
Between \$5 bil. and \$10 bil.	11.30%	No typical allocation	No formal range
Between \$10 and \$20 billion	10.68%	No typical allocation	No formal range
Greater than \$20 billion	27.24%	No typical allocation	No formal range
Median Market Capitalization	2,015 m	No typical allocation	No formal range
Weighted Average Market Capitalization	23,866 m	No typical allocation	No formal range

36. Describe the firm's sell discipline.

Their investment process provides a disciplined buy and sell strategy, as it culminates in a ranking of all stocks in the investment universe according to their relative value and quality. A stock will be eligible for sale or reduction in the event that:

- It falls out of the top third of their Value and Quality Ranks (i.e. the stock becomes too expensive or its quality deteriorates relative to peers)
- The holding appreciates above their typical maximum holding size, when profit-taking and rebalancing into other opportunities may be appropriate.
- 37. What has been the average international value equity turnover for each of the last five years and the current year to date?

Year	Turnover (annual)
2009	133.50%
2010	85.43%
2011	94.23%
2012	62.53%
YTD	Not Available

# **Investment Management Fees**

38. Provide your fee schedules for the international equity product, both for commingled/mutual funds and separate accounts. If a commingled fund is proposed, what are the custody costs of the trust and are they an additional fee that is directly charged to the client? Please specify who custodies the assets. Are investment management fees negotiable?

Please refer below for their standard fee schedules for a separate account and commingled fund.

	Market Value	Fee in Percent
First	100 Million	0.70%
Next	100 Million	0.55%
Over	Balance	0.40%

Minimum Account Size: \$ 100 Million
Fees quoted are for investment management services and are on a per annum basis, calculated and payable quarterly in arrears based on the average market values of the Account as of the end of each calendar month during the calendar quarter.

	Market Value	Fee in Percent
First	50 Million	0.65%
Next	50 Million	0.60%
Next	100 Million	0.55%
Over	Balance	0.40%

#### **Standard Commingled Fund Fee Schedule**

**Operating Expense:** 0.15%

#### Minimum Account Size: \$1 Million

Fees quoted are on a per annum basis, calculated and payable monthly based on the balance of the Investor's Capital Account, as described in the Fund's offering documents.

Mutual Fund Expense RatiosInvestor Share Class:0.80% Management Fee 0.96% TER)Minimum Account Size:\$250,000Advisor Share Class:0.80% Management Fee 1.31% (TER)Minimum Account Size:\$2,500

The custodian for their US Mutual Fund range is JP Morgan.

Schroders is willing to discuss alternative fee arrangements for accounts over \$100 million.

Also, while a commingled fund is not currently available they would launch one should this vehicle 39. Has the firm entered into incentive fee arrangements? If so, provide details.

Yes. Please refer below for details.

#### **Performance Based Fees**

50% of the fixed fee plus a performance fee of 12.5% of performance over the benchmark\*

Please note this fee could only be applied in the case of a separate account or commingled fund.

40. Does your firm use any service, information, or merchandise paid for with directed commissions? If yes, please list the services received from such commissions, and the percentage of fees so directed.

Currently, almost all assets managed by Schroder Investment Management North America Inc. are discretionary in nature. Their trading desk routes client orders for execution solely on the basis of best execution considerations. Moreover, the firm generally aggregates all client order for execution. They generally discourage directed brokerage arrangements that might compromise best execution or aggregation. There may be instances when a client wishes to direct a trade to a specified broker/dealer or due to restrictions are prohibited from trading through a specified broker/dealer.

41. Please provide copies of your firm's Form ADV Parts I and II.

Please refer to **Appendix I** for a copy of their Form ADV Part I, Advisory Brochure and Investment Supplement.

#### International value Equity Investment Performance

International Value Equity Manager Search Response Summary- Schroders 42. Provide quarterly historical performance for your product using the attached form. Do not include any simulated data. Returns should be total portfolio, time-weighted rates of return **both gross and net** of investment management fees. For year-end periods, also provide the market value of assets and number of accounts. If you offer both a commingled product and separate accounts, provide performance for both.

Please refer to the table below for composite returns

43. Please specify the methodology for constructing the firm's composite performance.

#### **Composite Construction**

New accounts are included from the beginning of the first full month of management on a discretionary basis. Terminated accounts are excluded from the end of the last full month of discretionary management. This Composite has no minimum asset level for inclusion. The composite currency is US Dollar

Composite Inception Date: 08/31/2006

Composite Creation Date: 11/01/2006

#### **Performance Calculation**

The portfolio returns are time-weighted rates of return that are adjusted for cash flows. Portfolio returns are combined using beginning of period asset weights to produce the composite return. Periodic returns are geometrically linked to produce annual returns.

Dividends on equities are recognized net of irrecoverable withholding tax. Since January 1999 dividends have been recognized as of the ex-dividend date having previously been recognized on a cash basis. Performance results are presented before the deduction of management fees and custodian fees but after trading expenses.

44. Are returns audited? By whom? Are returns CFAI/AIMR compliant? For what time period? Please provide the most recent statement of verification by an independent third party.

Yes. All composite returns are audited by their external auditor Ernst & Young on an annual basis.

Please refer to Appendix II for a copy of the most recent GIPS verification.

### **Rolling Returns Three-Year Periods**



We specifically looked at the ability of the products to consistently deliver three-year rolling returns in excess of the MSCI ACWI Index. All firms delivered returns higher than the MSCI ACWI Index over all but the most recent rolling three-year periods.Performance all firms is particularly strong in the 2009-2012 period, with all firms significantly outperforming the index, and ranking in the top quartile. MFS and Pryford show particular strength with consistent outperformance of the index and ranking in the top quartile.



### **Rolling Standard Deviation Three-Year Periods**

In earlier periods, Schroder has a much higher standard deviation relative to other firms. In more recent periods, MFS and Pyrford have standard deviations that are close to each other, and Pryford have a standard deviation that is consistently lower than the index.



### **Rolling Downside Market Capture Ratio Three-Year Periods**

DMC ratio is a measure of the manager's performance in down markets relative to the market itself. A value of 90 suggests the manager's loss is only nine tenths of the market's loss during the selected time period. A market is considered down if the return for the benchmark is less than zero. The DMC Ratio is calculated by dividing the return of the manager during the down market periods by the return of the market during the same periods. Generally, the lower the DMC ratio, the better (If the manager's DMC ratio is negative, it means that during that specific time period, the manager's return for that period was actually positive).

Over most periods, all firms showed a DMC ratio of less than 100. In the most recent period, MFS showed a DMC ratio of 70.3 in early years, but has come down in significantly in subsequent periods. Pryford has the lowest DMC ratio of the candidate firms over earlier time periods, while MFS show the lowest DMC ratios in the most recent period.



### **Rolling Upside Market Capture Ratio Three-Year Periods**

Downside Market Capture ratios are a measure of the ability of the strategy to hold value. However, the strategy also needs to be able to benefit from rising markets. We show the Upside Market Capture (UMC) ratio in the chart above, which is simply the measure of the manager's performance in up markets relative to the market itself. Again, a value above 100 suggests the manager's gain would be stronger than the market during the selected time period. Generally, the higher the UMC ratio, the better.

Schroders have the highest UMC ratio over all periods. Pryford have an UMC ratio of below 100 for all periods. Since its inception, Schroder have maintained an UMC ratio above 100.



### **Rolling Sharpe Ratio Three-Year Periods**

While it is informative to look at return, risk and performance in up and down markets in isolation, we are ultimately seeking to identify a manager that can use its risk budget appropriately to add value over a market cycle. All strategies under consideration show higher Sharpe ratios (defined as the return above cash divided the portfolio's standard deviation) than the index. All three strategies are reasonable on this measure, and most generally have a Sharpe ratio only slightly better than the Index.



### **Rolling Information Ratio Three-Year Periods**

Additionally, we reviewed the managers' ability to produce consistent, risk adjusted returns better than the MSCI ACWI ex-US Value Index. We reviewed the firm's information ratios (active return divided by tracking error); a higher information ratio would indicate that a firm is being rewarded for the non-benchmark risk it is taking. MFS and Pryford have the lowest information ratio for periods 2009-2012. Schroders consistently rank in or near the top quartile for information ratio since inception.

#### **Definitions**

**Excess Returns** - Returns in excess of the risk-free rate, a benchmark or in excess of another manager. A positive excess return indicates that the manager outperformed the benchmark for that period.

Given two return series (typically a manger and a benchmark),  $x_1, \dots, x_n$  and  $y_1, \dots, y_n$ , the excess return series is defined as  $er_1, \dots, er_n = x_1 - y_1, \dots, x_n - y_n$ 

#### Annualized Excess Return = Annualized Manager Return - Annualized Index Return

**Standard Deviation** - A measure of the average deviations of a return series from its mean; often used as a risk measure. A large standard deviation implies that there have been large swings or volatility in the manager's return series.



- n = the number of observations
- Ny = the number of periods in a year (4 if quarterly data, 12 if monthly data)

**Tracking Error** - A measure of the amount of active risk that is being taken by a manager. This statistic is computed by subtracting the return of a specified benchmark or index from the manager's return for each period and then calculating the standard deviation of those differences. A higher tracking error indicates a higher level of risk – not necessarily a higher level of return - being taken relative to the specified benchmark. Tracking error only accounts for deviations away from the benchmark, but does not signal in which directions these deviations occur (positive or negative).

#### TE = Standard Deviation of Excess Return

**Information Ratio** - This statistic is computed by subtracting the return of the market from the return of the manager to determine the excess return. The excess return is then divided by the standard deviation of the excess returns (or Tracking Error) to produce the information ratio. This ratio is a measure of the value added per unit of active risk by a manager over an index. Managers taking on higher levels of risk are expected to then generate higher levels of return, so a positive IR would indicate "efficient" use of risk by a manager. This is similar to the Sharpe Ratio, except this calculation is based on excess rates of return versus a benchmark instead of a risk-free rate.



**Sharpe Ratio** - This statistic is computed by subtracting the return of the risk-free index (typically 91-day T-bill or some other cash benchmark) from the return of the manager to determine the risk-adjusted excess return. This excess return is then divided by the standard deviation of the manager. A manager taking on risk, as opposed to investing in cash, is expected to generate higher returns and Sharpe measures how well the manager generated returns with that risk. In other words, it is a measurement of efficiency utilizing the relationship between annualized risk-free return and standard deviation. The higher the Sharpe Ratio, the greater efficiency produced by this manager. For example, a Sharpe Ratio of 1 is better than a ratio of 0.5.



 $R_f = Risk-free rate$ 

Alpha - The incremental return of a manager when the market is stationary. In other words, it is the extra return due to nonmarket factors. This risk-adjusted factor takes into account both the performance of the market as a whole and the volatility of the manager. A positive alpha indicates that a manager has produced returns above the expected level at that risk level, and vice versa for a negative alpha. Alpha is the Y intercept of the regression line.

Alpha 
$$(a) = X - [Beta*Y]$$

- X = the mean return for the manager
- Y = the mean return for the index

International Value Equity Manager Search Additional Information Milliman, Inc. Page 67 **Beta** - This is a measure of a portfolio's volatility. Statistically, beta is the covariance of the portfolio in relation to the market. A beta of 1.00 implies perfect historical correlation of movement with the market. A higher beta manager will rise and fall more rapidly than the market, whereas a lower beta manager will rise and fall slower. For example, a 1.10 beta portfolio has historically been 10% more volatile than the market.

Beta <sub>(β)</sub> = 
$$\frac{[(n)^* \Sigma(x_i^* y_i)] - (\Sigma x_i)(\Sigma y_i)}{[(n)^* \Sigma(y_i^2)] - (\Sigma y_i)^2}$$

n = the number of observations

xi = the return of the first data series (*ith* observation)

yi = the return of the second data series (ith observation)

Generally, xi = the manager's return series and yi will be a specified index (benchmark)

**R-Squared** - Otherwise known as the *Coefficient of Determination*, this statistic, like beta, is a measure of a manager's movement in relation to the market. Generally, the R-Squared of a manager versus a benchmark is a measure of how closely related the variance of the manager returns and the variance of the benchmark returns are. In other words, the R-Squared measures the percent of a manager's return patterns that are "explained" by the market and ranges from 0 to 1. For example, an r-squared of 0.90 means that 90% of a portfolio's return can be explained by movement in the broad market (benchmark).

R-Squared =  $(r)^2$ 

r = correlation coefficient



# MFS<sup>®</sup> INTERNATIONAL VALUE EQUITY

Presented to:

The Contra Costa County Employees' Retirement Association

October 23, 2013



# Presenters

Camille Humphries Lee, CFA	<ul> <li>Investment Officer</li> <li>Institutional Equity Portfolio Manager</li> <li>As an Institutional Portfolio Manager, participates in the research process and strategy discussions. Assesses portfolio risk, customizes portfolios to client objectives and guidelines, and manages daily cash flows. Communicates investment policy, strategy, and positioning.</li> <li>Joined MFS in 2000.</li> </ul>
	- Previous experience includes 3 years as Research Analyst at SG Cowen Securities Corporation; 8 years as Research Analyst and Associate Analyst at Alex Brown.
	<ul> <li>Affiliations include CFA Institute, Boston Security Analysts Society, Inc.</li> </ul>
	- University of Virginia, MBA
	- University of Virginia, BA
Allan Duckett	<ul> <li>Director, Institutional Sales</li> <li>Joined MFS in 2008.</li> </ul>
	<ul> <li>Previous experience includes 7 years as Vice President, Manager - Client Relations at AllianceBernstein; 1 year as Consultant at Spherion, Inc.</li> </ul>

- University of California, Berkeley, MBA
- University of Wisconsin, BBA



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### MFS<sup>®</sup> overview

### **Integrated Research**

We look at investment opportunities across the globe by integrating fundamental equity, quantitative and credit disciplines in our analysis.

### **Global Collaboration**

Our team philosophy and incentive structure ensure strong collaboration across the firm.

### Active Risk Management

We take a holistic approach to actively managing risk with reviews in place at security, portfolio and firm levels and a clear focus on generating alpha for our clients.







We apply a uniquely collaborative approach to build better insights for our clients



### Business profile (USD) 353 billion total MFS AUM





### EAFE/International equity capabilities (USD) Composite performance as of 30 June 2013 – gross of fees

	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Sinc	e Inception
MFS Blended Research International Equity	1.9	15.2	-	-	-	-	-1.9	01-May-11
MSCI All Country World (ex-US) Index (net div)	0.0	13.6	-	-	_	-	-3.3	·
Excess Returns	1.9	1.6	-	-	-	-	1.4	
MFS International Equity	2.3	18.2	12.8	3.9	5.2	10.3	8.8	01-Mar-96
MSCI EAFE (Europe, Australasia, Far East) Index (net div)	4.1	18.6	10.0	-0.6	1.4	7.7	4.4	
Excess Returns	-1.8	-0.4	2.8	4.5	3.8	2.6	4.4	
MFS International Research Equity	4.0	18.2	12.2	1.0	3.5	9.8	7.3	01-Jul-98
MSCI EAFE (Europe, Australasia, Far East) Index (net div)	4.1	18.6	10.0	-0.6	1.4	7.7	3.6	
Excess Returns	-0.1	-0.4	2.2	1.6	2.1	2.1	3.7	
MFS International Value Equity <sup>1</sup>	13.1	24.3	16.7	6.3	6.9	12.8	10.0	01-Dec-97
MSCI EAFE (Europe, Australasia, Far East) Value Index (net div)	2.7	18.6	9.2	-0.9	0.3	7.6	5.4	
Excess Returns	10.4	5.7	7.5	7.2	6.6	5.2	4.6	
MFS International Growth Equity	1.2	14.5	12.1	3.7	5.9	11.3	10.1	01-Oct-01
MSCI All Country World (ex-US) Growth Index (net div)	1.4	14.4	8.7	-1.0	2.7	8.3	7.3	
Excess Returns	-0.2	0.1	3.4	4.7	3.2	3.0	2.8	
MFS Emerging Markets Equity	-9.6	2.5	5.4	-1.0	5.7	14.4	9.5	01-Jan-00
MSCI Emerging Markets Index (gross div) <sup>2</sup>	-9.4	3.2	3.7	-0.1	6.1	14.0	7.8	
Excess Returns	-0.2	-0.7	1.7	-0.9	-0.4	0.4	1.7	
MFS International Concentrated Equity	3.7	18.2	12.1	4.2	_	-	3.5	01-Apr-07
MSCI EAFE (Europe, Australasia, Far East) Index (net div)	4.1	18.6	10.0	-0.6	_	_	-1.3	
Excess Returns	-0.4	-0.4	2.1	4.8	-	-	4.8	
MFS International Small Cap Equity <sup>1</sup>	5.6	20.2	16.3	6.7	7.7	14.3	11.2	01-Jan-01
Blended Benchmark <sup>3</sup>	1.6	15.8	9.2	1.6	3.6	11.4	11.4	
Excess Returns	4.0	4.4	7.1	5.1	4.1	2.9	2.8	

<sup>1</sup> Soft close.

<sup>2</sup> MFS uses MSCI EMF gross dividends performance due to its longer track record.

<sup>3</sup> The benchmark for the International Small Cap strategy was S&P Citigroup EMI Global ex-US Index prior to 1-Dec-11. After 1-Dec-11, the benchmark changed to the MSCI AC World ex-US Small Mid Cap Index.

Please see the appendix for composite reports.

GPS/UP/Capabilities/USD/EAFE Intl.1

FOR INSTITUTIONAL USE ONLY MFS Institutional Advisors, Inc.

28460.1.



Public funds & Taft Hartley

### Representative MFS institutional client list<sup>1</sup> Serving over 300 institutional clients globally

Corporate

Non-profit

•		
<ul> <li>American Airlines</li> <li>Bristol-Myers Squibb</li> <li>CenturyLink</li> <li>Chrysler</li> <li>Google</li> <li>MeadWestvaco Corporation</li> <li>Mitsubishi Electric Pension Fund</li> <li>Nestle</li> <li>Panasonic Pension Fund (Japan)</li> <li>PepsiCo Inc</li> <li>Robert Bosch GmbH</li> <li>Toyota Motor Corporation (Japan)</li> <li>U.S. Airways</li> </ul>	<ul> <li>Archdiocese of New York</li> <li>California Academy of Sciences</li> <li>CERN Pension Fund</li> <li>Children's Hospital of Pittsburgh</li> <li>Community Hospital of the Monterey Peninsula</li> <li>Furman University</li> <li>National Gallery of Art</li> <li>North Shore Long Island Jewish Health System</li> <li>Providence College</li> <li>Texas A&amp;M Foundation</li> <li>Trinity University</li> <li>Virginia Tech</li> </ul>	<ul> <li>Andra AP-Fonden</li> <li>City of Phoenix</li> <li>County of Los Angeles</li> <li>Lærernes Pension</li> <li>Federation of National Public Service Workers Personnel Mutual Aid Associations, Japan</li> <li>Government Pension Investment Fund of Japan</li> <li>London Pensions Fund Authority</li> <li>Lønmodtagernes Dyrtidsfond</li> <li>LSR (The Pension Fund for State Employees in Iceland)</li> <li>Massachusetts Water Resources Authority</li> <li>Nebraska Investment Council</li> <li>Oregon and Southwest Washington Painters</li> <li>Parliamentary Contributory Pension Fund</li> <li>State of Oregon</li> </ul>

### Sub-advised accounts

- ING Investment Management
- GuideStone Capital Management

- NTUC Income Insurance Co-Operative Ltd.
- Russell Investment Group

<sup>1</sup> As of 30-Jun-13. This does not represent a complete list of MFS' institutional clients. The selection of clients represents a sampling of those who have agreed to the use of their names. It is not known whether the listed clients approve or disapprove of MFS Institutional Advisors Inc. or the advisory service provided. The criteria used to include the above listed clients are a mix of investment style, type of client, and other considerations.

Commitment to world class client service results in enduring relationships



# **Distinguishing characteristics**

# What makes us different from other international value managers?

#### Integrated global research platform

- Collaborative culture critical to process
- · Combines equity, fixed-income, and quantitative analysis

#### Disciplined, consistent strategy

- · Seeks sustainable returns in various market environments
- · Assess investment opportunities in context of 3 to 5 year time horizon

#### **Rigorous valuation discipline**

- Patient, contrarian approach
- · Focus on downside risk management



# Experienced MFS International Value Equity team



Barnaby Wiener<sup>1</sup> Portfolio Manager 19 years industry experience



Benjamin Stone Portfolio Manager 17 years industry experience



Pablo de la Mata<sup>2</sup> Portfolio Manager 9 years industry experience



Camille Lee, CFA Institutional Portfolio Manager 23 years industry experience

#### Additional resources

#### **Nevin Chitkara**

**Portfolio Manager** 20 years industry experience

#### Steven Gorham, CFA Portfolio Manager 23 years industry experience

Katrina Mead, CFA Institutional Portfolio Manager 18 years industry experience

#### Ann Marie Costello Investment Product Specialist 25 years industry experience

<sup>1</sup> Effective 31 December 2014, Barnaby Wiener will relinquish his manager responsibilities on the MFS International Value Equity strategy. <sup>2</sup> Effective 30 September 2014, Pablo de la Mata will join Benjamin Stone on the portfolio management team of the MFS International Value Equity strategy.

Experienced management, tested by markets, backed by depth



# Investment approach

hort-term newsflow. rative investment
inaccurate, particularly
sustainability,
risk, and only invest

7



# Historical performance in diverse markets (USD)



<sup>1</sup> MSCI EAFE Value with net dividends reinvested. Source: benchmark performance from SPAR, FactSet Research Systems Inc. Based on quarterly returns in USD.



### Investment process overview





### Idea generation: Invest rather than speculate





### Stock analysis: Analyze rather than forecast





# Portfolio construction: Focus on downside risk



Seeks to invest where we believe valuations more than compensate for inherent risks



### Sector weights



#### As of 30-Sep-13

4.6% cash and other assets are less liabilities; this may include derivative offsets.



# Region and country weights

Underweight/overweight as of 30-Sep-13 (%)



		MSCI EAFE Value	Underweight/
	Portfolio (%)	Index (%)	overweight (%)
Europe ex-U.K.	40.4	42.4	-2.0
Switzerland	12.4	3.5	8.9
Netherlands	3.8	2.2	1.6
Denmark	1.3	0.4	0.9
Finland	1.4	1.2	0.2
Ireland	0.2	0.3	-0.1
Norway	1.1	1.5	-0.4
Sweden	2.4	2.8	-0.4
Italy	1.5	2.7	-1.2
Germany	8.5	10.5	-2.0
Spain	1.7	5.3	-3.6
France	6.0	11.0	-5.0
Other <sup>1</sup>	0.0	1.0	-1.0
United Kingdom	24.7	23.6	1.1
Japan	26.9	21.2	5.7
Asia/Pacific ex-Japan	2.0	12.4	-10.4
Singapore	0.3	1.6	-1.3
Hong Kong	0.5	2.8	-2.3
Australia	1.2	7.9	-6.7
Other <sup>1</sup>	0.0	0.1	-0.1
Emerging Markets	1.4	0.0	1.4
Taiwan	1.2	0.0	1.2
China	0.2	0.0	0.2

4.6% cash and other assets are less liabilities; this may include derivative offsets. Portfolio does not own securities in the Developed - Middle East/Africa region (0.5%).

<sup>1</sup> Portfolio does not own securities in the following country: Israel 0.5%; and 5 other countries with weights less than 0.5% totaling 1.1%.



# Top 10 portfolio holdings

As of 31-Aug-13	Country	Sector	Portfolio (%)	MSCI EAFE Value (%)	MSCI EAFE (%)
KDDI Corp	Japan	Utilities & Communications	3.7	0.3	0.2
Danone SA	France	Consumer Staples	3.6	-	0.4
GlaxoSmithKline PLC	United Kingdom	Health Care	3.2	-	1.1
Roche Holding AG	Switzerland	Health Care	2.8	-	1.5
Kao Corp	Japan	Consumer Staples	2.5	-	0.1
Nestle SA	Switzerland	Consumer Staples	2.5	-	1.8
Telefonaktiebolaget LM Ericsson	Sweden	Technology	2.3	0.3	0.3
Japan Tobacco Inc	Japan	Consumer Staples	2.3	-	0.3
Royal Dutch Shell PLC	United Kingdom	Energy	2.3	3.6	1.8
Henkel AG & Co KGaA IPS	Germany	Consumer Staples	2.2	-	0.2



### **Characteristics**

As of 30-Sep-13		Portfolio	MSCI EAFE Value	MSCI EAFE
Fundamentals <sup>1</sup>	Price/earnings (12 months forward)	14.7x	11.3x	13.1x
	Price/book	2.0x	1.2x	1.6x
	Dividend yield	2.8%	3.9%	3.1%
	Return on equity (3-year average)	16.3%	11.3%	15.6%
Market capitalization (USD)	Median by weight	30.7 bn	44.1 bn	39.8 bn
	Weighted average	55.4 bn	63.4 bn	63.6 bn
Diversification	Top 10 holdings	27%	20%	13%
	Number of holdings	94	504	909
	Number of countries	18	22	26
Turnover <sup>2</sup>	1 year	25%	-	-
Risk/reward (USD)	Standard deviation (5 years composite monthly)	18.8%	23.8%	22.2%
	Barra predicted tracking error vs. <sup>3</sup>	_	7.1%	5.5%
	Beta (5 years composite monthly) vs.	_	0.76	0.82

No forecasts can be guaranteed.

<sup>1</sup> Weighted average.

<sup>2</sup> (Lesser of purchase or sales)/average market value.

Source: Barra. The Barra information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used to create any financial instruments or products or any indices. The Barra information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. Barra, each of its affiliates and each other person involved in or related to compiling, computing or creating any Barra information (collectively, the "Barra Parties") expressly disclaims all warranties (including without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any Barra Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages.



# MFS International Value Equity Composite Performance – gross of fees (USD)

#### Annualized returns (%), as of 30-Sep-13

<ul> <li>MFS International Value Equity Composite</li> <li>MSCI EAFE (Europe, Australasia, Far East) Value Index (net div)</li> <li>MSCI EAFE (Europe, Australasia, Far East) Index (net div)</li> </ul>	25.9	24.3 2	3.8	15.3	8.0 8.	5	11.8	9 6.4	1	3.1 7.9	8.0
Excess return (%) vs.		1 Year		3 `	Years		5 Ye	ears		10 Ye	ars
MSCI EAFE (Europe, Australasia, Far East) Value Index (net div)		1.6			7.3		5	5.9		5.2	2
MSCI EAFE (Europe, Australasia, Far East) Index (net div)		2.1			6.8		5	5.4		5.	1
Annual performance (%), as of 30-Sep-13	YTD	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
MFS International Value Equity Composite	22.6	17.2	-0.7	10.6	26.5	-30.9	8.8	30.3	16.3	29.4	35.0
MSCI EAFE (Europe, Australasia, Far East) Value Index (net div)	15.7	17.7	-12.2	3.2	34.2	-44.1	6.0	30.4	13.8	24.3	45.3
Excess return	6.9	-0.5	11.5	7.4	-7.7	13.2	2.8	-0.1	2.5	5.1	-10.3
MSCI EAFE (Europe, Australasia, Far East) Index (net div)	16.1	17.3	-12.1	7.8	31.8	-43.4	11.2	26.3	13.5	20.2	38.6
Excess return	6.5	-0.1	11.4	2.8	-5.3	12.5	-2.4	4.0	2.8	9.2	-3.6

Please see performance methodology and composite report in appendix for net of fee performance and other information. Source for benchmark performance: SPAR, FactSet Research Systems Inc. Past performance is no guarantee of future results.

A proven history of strong relative performance



# How has this translated into performance results? (USD)



<sup>1</sup> MSCI EAFE Value with net dividends reinvested.

Source: benchmark performance from SPAR, FactSet Research Systems, Inc.

Disciplined approach, consistent relative returns



### Fee Schedule (USD)<sup>1</sup>

	Assets	Total Expense Ratio <sup>2</sup>
Collective Investment Trust Class 4	Investment minimum 100 million	65 basis points
Collective Investment Trust Class 5	Investment minimum 300 million	59 basis points

<sup>1</sup>To protect the interests of existing investors, MFS institutional commingled vehicles are subject to a Significant Transaction Fee which reimburses the vehicle for trading costs associated with large cash flows. These fees are not reflected in the fee schedule above. The fee is paid to the vehicle, not MFS.

<sup>2</sup>Includes Other fees represent operating expenses such as, but not limited to, custody, accounting and audit expenses. CIT "other fees" are currently capped at 10 basis points.



### Your MFS Team

Barnaby Wiener<sup>1</sup> Portfolio Manager 19 years industry experience

Benjamin Stone Portfolio Manager 17 years industry experience **Carolyn Lucey, CIMA** Director, Relationship Management 26 years industry experience

> Allan Duckett Director, Institutional Sales 13 years industry experience

Pablo de la Mata<sup>2</sup> Portfolio Manager 9 years industry experience

> Camille Lee, CFA Institutional Portfolio Manager 23 years industry experience

The Contra Costa County Employees' Retirement Association

Ann E. Flynn Client Service Manager 12 years industry experience

Ann Marie Costello Investment Product Specialist 25 years industry experience

INSTITUTIONAL PRODUCT MANAGE

As of 30-Sep-13

<sup>1</sup> Effective 31 December 2014, Barnaby Wiener will relinquish his manager responsibilities on the MFS International Value Equity strategy.

<sup>2</sup> Effective 30 September 2014, Pablo de la Mata will join Benjamin Stone on the portfolio management team of the MFS International Value Equity strategy.

 $\underset{\text{IV-S-MT-USD-US-3Q13.1}}{\text{MFS}^{\textcircled{B}}} \text{ International Value Equity}$


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# MFS International Value Equity team

Barnaby Wiener	<ul> <li>Investment Officer</li> <li>Equity Portfolio Manager</li> <li>Serves on MFS Global Equity Management Committee</li> <li>As a Value Equity Portfolio Manager, responsible for final buy and sell decisions, portfolio construction, risk and cash management. Participates in the research process and strategy discussions.</li> <li>Joined MFS in 1998; previous positions include Equity Research Analyst.</li> <li>Previous experience includes 2 years as Vice President &amp; Equity Analyst at Merrill Lynch; 2 years as Equity Research Analyst at Credit Lyonnais.</li> <li>Served five years in the British Army reaching the rank of Captain</li> <li>Royal Military College, Sandhurst , Graduate Course</li> <li>Oxford University, MA, upper 2nd class history degree</li> </ul>
Benjamin Stone, IIMR	<ul> <li>Investment Officer</li> <li>Equity Portfolio Manager</li> <li>Joined MFS in 2005; previous positions include Equity Research Analyst.</li> <li>Previous experience includes 9 years as Research Analyst at Schroders Investment Management.</li> <li>Affiliations include Institute of Investment Management and Research</li> </ul>

- Durham University, BA, 2:1

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### MFS International Value Equity team (continued)

#### **Camille Humphries Lee, CFA**

- Investment Officer
- Institutional Equity Portfolio Manager
- As an Institutional Portfolio Manager, participates in the research process and strategy discussions. Assesses portfolio risk, customizes portfolios to client objectives and guidelines, and manages daily cash flows. Communicates investment policy, strategy, and positioning.
- Joined MFS in 2000.
- Previous experience includes 3 years as Research Analyst at SG Cowen Securities Corporation; 8 years as Research Analyst and Associate Analyst at Alex Brown.
- Affiliations include CFA Institute, Boston Security Analysts Society, Inc.
- University of Virginia, MBA
- University of Virginia, BA

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### MFS International Value Equity team additional resources

#### Nevin P. Chitkara

#### - Investment Officer

- Equity Portfolio Manager
- As a Value Equity Portfolio Manager, responsible for final buy and sell decisions, portfolio construction, risk and cash management. Participates in the research process and strategy discussions.
- Joined MFS in 1997; previous positions include Equity Research Analyst.
- Previous experience includes 5 years as Analyst, Acquisition Associate and Manager at General Electric Company.
- Massachusetts Institute of Technology, MBA
- Boston University, BS, magna cum laude

Steven R. Gorham, CFA

- Investment Officer
- Equity Portfolio Manager
- Serves on MFS Global Equity Management Committee
- As a Value Equity Portfolio Manager, responsible for final buy and sell decisions, portfolio construction, risk and cash management. Participates in the research process and strategy discussions.
- Joined MFS in 1989; previous positions include Equity Research Analyst; Marketing Representative; Teleservices Representative.
- Affiliations include CFA Institute, Boston Security Analysts Society, Inc.
- Boston College, MBA
- University of New Hampshire, BS



### MFS International Value Equity team additional resources (continued)

Katrina Mead, CFA	<ul> <li>Investment Officer</li> <li>Institutional Equity Portfolio Manager</li> <li>As an Institutional Portfolio Manager, participates in the research process and strategy discussions. Assesses portfolio risk, customizes portfolios to client objectives and guidelines, and manages daily cash flows. Communicates investment policy, strategy, and positioning.</li> <li>Joined MFS in 1997; previous positions include Equity Research Analyst.</li> <li>Previous experience includes 2 years as Financial Analyst - Real Estate Advisory Services at Coopers &amp; Lybrand, Financial Advisory Services.</li> <li>Affiliations include CFA Institute, Boston Security Analysts Society, Inc.</li> <li>University of Pennsylvania, MBA</li> </ul>
	- Villanova University, BS, magna cum laude
Ann Marie Costello	<ul> <li>Managing Director, Investment Product Specialist</li> <li>As an Investment Product Specialist, communicates investment policy, strategy and tactics, performs portfolio analysis and leads product development.</li> <li>Joined MFS in 2001.</li> <li>Previous experience includes 13 years as Senior Product Manager, Investment Specialist, Senior Statistical Analyst - Performance and Analytics, and Supervisor - Institutional Accounting at Putnam Investments.</li> </ul>
	- University of Massachusetts, BS



### Historical portfolio weights Five years as of 30 September 2013

Developed markets			
weights	Max	Min	Avg
North America	0.6	-	0.1
Canada	0.0	_	0.0
United States	0.6	_	0.1
Europe ex U.K.	47.1	35.6	41.0
Austria			
Belgium	0.2		0.0
Denmark	1.3		0.6
Finland	2.2		1.0
France	11.4	5.9	8.0
Germany	9.6	6.1	7.6
Ireland	1.4		0.3
Italy	2.0	0.8	1.3
Netherlands	9.2	3.8	6.4
Norway	2.8	0.7	1.1
Spain	2.6		1.3
Sweden	2.4	1.1	1.8
Switzerland	12.7	9.8	11.6
U.K.	27.9	14.7	23.7
Japan	29.0	21.8	25.5
Asia Pacific ex Japan	4.0	1.6	2.0
Australia	2.3	-	0.8
Hong Kong	1.1	0.2	0.7
New Zealand	0.5	-	0.1
Singapore	0.9	0.3	0.5

Emerging markets			
weights	Max	Min	Avg
Asia Pacific ex Japan			
China	0.6	0.2	0.4
South Korea	2.7	0.3	1.4
Taiwan	2.8	0.9	1.6
Thailand	1.1	_	0.3
Europe/Middle East			
Czech Republic	_	-	_
Israel	_	-	-
Latin America			
Brazil	0.7	_	0.1
Mexico	0.6	_	0.1
Total Emerging Markets	6.9	1.4	3.6

Sector weights	Max	Min	Avg
Autos & Housing	3.7	1.1	1.8
Basic Materials	4.0	2.4	3.2
Consumer Staples	21.1	11.2	18.1
Energy	9.7	3.4	6.1
Financial Services	20.2	14.6	17.3
Health Care	15.9	9.9	12.9
Industrial Goods & Services	7.8	4.4	5.7
Leisure	6.9	2.1	3.9
Retailing	3.1	1.7	2.2
Special Products & Services	7.7	1.9	4.7
Technology	9.4	6.1	7.7
Transportation	3.6	1.3	2.4
Utilities & Communications	12.7	8.5	9.9

Based on the MFS representative account for the strategy.

Data prior to 30-Jun-10 reflects market value, and is not based on equivalent exposure, which may differ.



## Region and country weights

Underweight/overweight as of 30-Sep-13 (%)



	Portfolio (%)	MSCI EAFE Index (%)	Underweight/ overweight (%)
Europe ex-U.K.	40.4	43.6	-3.1
Denmark	1.3	1.1	0.2
Finland	1.4	0.9	0.6
France	6.0	9.8	-3.9
Germany	8.5	8.7	-0.2
Ireland	0.2	0.3	-0.1
Italy	1.5	2.1	-0.7
Netherlands	3.8	2.7	1.2
Norway	1.1	0.8	0.3
Spain	1.7	3.2	-1.4
Sweden	2.4	3.2	-0.8
Switzerland	12.4	9.1	3.4
Other <sup>1</sup>	0.0	1.7	-1.7
United Kingdom	24.7	21.7	3.0
Japan	26.9	21.6	5.3
Asia/Pacific ex-Japan	2.0	12.6	-10.7
Australia	1.2	8.0	-6.8
Hong Kong	0.5	3.0	-2.5
Singapore	0.3	1.6	-1.3
Other <sup>1</sup>	0.0	0.1	-0.1
Developed - Middle East/Africa	0.0	0.4	-0.4
Other <sup>1</sup>	0.0	0.4	-0.4
Emerging Markets	1.4	0.0	1.4
China	0.2	0.0	0.2
Taiwan	1.2	0.0	1.2
Other	0.0	0.1	-0.1

4.2% cash and other assets are less liabilities; this may include derivative offsets.

<sup>1</sup> Portfolio does not own securities in the following countries: Belgium 1.2%; and 6 other countries with weights less than 0.5% totaling 1.1%.



## Market capitalization (USD)



Weighted average market cap	(USD billions)
Portfolio	55.4
MSCI EAFE Value	63.4
MSCI EAFE	63.6

Based on the MFS representative account for the strategy.



### MFS International Value Equity Composite

Quarterly and annual performance summary – gross of fees (USD)

	1Q	2Q	3Q	4Q	Year
2013 MFS International Value Equity	8.5%	4.3%	8.4%		
2013 MSCI EAFE Value <sup>1</sup>	3.5	-0.7	12.6		
2013 MSCI EAFE <sup>2</sup>	5.1	-1.0	11.6		
2012 MFS International Value Equity	9.3	-2.3	6.9	2.7%	17.2%
2012 MSCI EAFE Value <sup>1</sup>	9.7	-7.1	7.5	7.4	17.7
2012 MSCI EAFE <sup>2</sup>	10.9	-7.1	6.9	6.6	17.3
2011 MFS International Value Equity	2.6	4.6	-11.2	4.3	-0.7
2011 MSCI EAFE Value <sup>1</sup>	4.5	1.0	-19.0	2.7	-12.2
2011 MSCI EAFE <sup>2</sup>	3.4	1.6	-19.0	3.3	-12.1
2010 MFS International Value Equity	1.8	-9.9	12.2	7.4	10.6
2010 MSCI EAFE Value <sup>1</sup>	-0.2	-15.5	16.4	5.3	3.2
2010 MSCI EAFE <sup>2</sup>	0.9	-14.0	16.5	6.6	7.8
2009 MFS International Value Equity	-14.7	23.1	19.3	1.0	26.5
2009 MSCI EAFE Value <sup>1</sup>	-15.5	29.7	22.1	0.3	34.2
2009 MSCI EAFE <sup>2</sup>	-13.9	25.4	19.5	2.2	31.8
2008 MFS International Value Equity	-4.5	-1.7	-16.0	-12.4	-30.9
2008 MSCI EAFE Value <sup>1</sup>	-9.7	-4.6	-19.1	-19.8	-44.1
2008 MSCI EAFE <sup>2</sup>	-8.9	-2.3	-20.6	-20.0	-43.4
2007 MFS International Value Equity	3.2	5.6	1.4	-1.5	8.8
2007 MSCI EAFE Value <sup>1</sup>	3.2	6.1	0.0	-3.3	6.0
2007 MSCI EAFE <sup>2</sup>	4.1	6.4	2.2	-1.8	11.2
2006 MFS International Value Equity	11.4	1.8	5.0	9.5	30.3
2006 MSCI EAFE Value <sup>1</sup>	9.8	1.1	5.5	11.3	30.4
2006 MSCI EAFE <sup>2</sup>	9.4	0.7	3.9	10.4	26.3
2005 MFS International Value Equity	2.2	-1.0	11.7	2.9	16.3
2005 MSCI EAFE Value <sup>1</sup>	0.5	-1.1	10.3	3.8	13.8
2005 MSCI EAFE <sup>2</sup>	-0.2	-1.0	10.4	4.1	13.5

<sup>1</sup> MSCI EAFE Value with net dividends reinvested.

<sup>2</sup> MSCI EAFE with net dividends reinvested.

Please see appendix for net-of-fees performance, composite report, and other information.

Source: benchmark performance from SPAR, FactSet Research Systems, Inc. Past performance is no guarantee of future results.

MFS<sup>®</sup> International Value Equity

IV-S-MT-USD-US-3Q13.27

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#### MFS International Value Equity Composite Performance – net of fees (USD)

#### Annualized returns (%), as of 30-Sep-13 MFS International Value Equity Composite MSCI EAFE (Europe, Australasia, Far East) Value Index (net div) MSCI EAFE (Europe, Australasia, Far East) Index (net div) 25.0 24.3 23.8 Percent (%) 14.5 12.3 11.0 8.5 8.0 7.9 8.0 6.4 5.9 1 Year 3 Years 5 Years 10 Years



## MFS International Value – investing for the long term



Weighted average holdings duration: 5.3 years



#### Additional disclosures

Portfolio characteristics are based on equivalent exposure, which measures how a portfolio's value would change due to price changes in an asset held either directly or, in the case of a derivative contract, indirectly. The market value of the holding may differ.

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#### **Performance Presentation Report**

#### 2013, Q2

**Composite:** MFS International Value Equity Composite

Benchmark MSCI EAFE Value - Net Return

Creation Date: 19-Oct-2005

#### Inception Date: 1-Dec-1997

**Investment Objective:** To provide longterm capital appreciation and current income by investing principally in attractively valued equities of companies whose operations lie outside of the U.S. Stock selection is based solely on MFS proprietary research process and therefore excludes assets managed by external parties or non-MFS subadvisors.

#### Institutional Separate Account Fee Schedule Asset Breakpoints (USD)

	()	
For Assets Up To	50 MM	75 bp
For Assets From	50 MM To 100 MM	60 bp
For Assets Over	100 MM	50 bp

Accounts are eligible for inclusion in the composite if they have assets greater than 2 MM USD.

Accounts are included as of their first full month of performance.

#### Derivative Exposure Disclosure

Certain MFS portfolios in this composite may utilize derivative instruments to manage risk or to achieve timely and cost effective implementation of the investment strategy. As of 30-Jun-2013, the number of accounts shown below held derivatives with the depicted equivalent exposure as a percent of total net assets:

_	Number of Accounts	Exposure
Long Exposure	16	4.11%
Short Exposure	16	-4.11%

Period	Composite	and Benchma	ark Return	Composite	Accounts in Composite at	Annualiz Standard	ed 3-Year Deviation	Assets in (	Composite
	Gross of fees	Net of fees	Benchmark	Dispersion	End of Period	Composite	Benchmark	(USD million)	% Firm
2013 Q2	4.28	4.09	-0.74	0.12	20	13.76	19.42	\$16,391.9	4.6
2013 Q1	8.48	8.28	3.50	0.21	19	14.65	20.38	\$14,713.3	4.2
2012	17.21	16.34	17.69	0.23	19	14.59	20.56	\$12,317.2	3.8
2011	-0.68	-1.43	-12.17	0.10	12	19.87	24.86	\$6,494.2	2.9
2010	10.60	9.78	3.25	n/a	9	n/a	n/a	\$5,104.7	2.3
2009	26.50	25.57	34.23	n/a	<6	n/a	n/a	\$3,009.2	1.6
2008	-30.86	-31.39	-44.09	n/a	<6	n/a	n/a	\$998.4	0.8
2007	8.77	7.96	5.96	n/a	<6	n/a	n/a	\$1,540.1	0.8
2006	30.25	29.30	30.38	n/a	<6	n/a	n/a	\$1,109.9	0.6
2005	16.33	15.48	13.80	n/a	<6	n/a	n/a	\$596.3	0.4
2004	29.43	28.49	24.33	n/a	<6	n/a	n/a	\$298.8	0.2
2003	34.98	34.00	45.30	n/a	<6	n/a	n/a	\$171.8	0.1

MFS Investment Management® claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. MFS has been independently verified for the periods 1-Jan-1988 through 31-Dec-2011.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS® standards. MFS International Value Equity Composite has been examined for the periods 01-Dec-1997 through 31-Dec-2011. The verification and performance examination reports are available upon request.

Total Gross-of-fee returns in USD (includes both capital appreciation and income), are net of transaction costs, withholding taxes and direct expenses, but before management fees, custody and other indirect expenses. Certain institutional accounts hold Canadian trusts subject to custody and other indirect expenses. Certain accounts may be subject to Fair Valuation as conditions warrant. Typical separate accounts utilize 4:00 PM (London Time) foreign exchange rates; retail products will use rates deemed most appropriate for daily NAV per share calculations. The possibility exists for performance dispersion between otherwise similarly managed accounts and also with the benchmark.

Net composite returns are prepared by subtracting from the monthly gross returns one-twelfth of the maximum applicable annual institutional separate account fee. Returns based on actual management fees, including non-separate account fees and performance based fees, would be lower for the following periods - 2003: 33.76; 2004: 28.30; 2005: 15.30; 2006: 29.11; 2007: 7.74; 2008: -31.49; 2009: 25.44.

Total Returns of the Benchmark are provided for each period depicted, expressed in USD. Source of Benchmark Performance: FACTSET ®. Benchmark returns are not examined by independent accountants.

MSCI EAFE (Europe, Australasia, Far East) Value Index - a market capitalization-weighted index that is designed to measure equity market performance for value securities in the developed markets, excluding the U.S. and Canada.

Composite Dispersion is measured by the asset-weighted standard deviation of account returns for all accounts in the composite for the full period. For composites containing less than six accounts, dispersion is deemed not meaningful.

Effective 1-Dec-2012, the composite name changed from the MFS Diversified International Value Composite to the MFS International Value Equity Composite. Effective 1-Dec-2012, the former MFS International Value Composite is now the MFS International Value Equity Legacy Composite. Prior to 31-Mar-2009 accounts would be eligible for inclusion in the composite if they had assets greater than 5.0 MM USD and as of their second full month of performance.

Certain accounts in this composite may make tactical allocation to U.S. and Canadian based securities, where each investment is deemed to be consistent with the composite's overall investment objective.

For purposes of GIPS® compliance, the firm is defined as MFS Investment Management® which is comprised of Massachusetts Financial Services Company (MFS) and MFS Institutional Advisors, Inc. (MFSI), each of which is a registered investment advisor, MFS Heritage Trust Company, a New Hampshire Trust company, and McLean Budden Limited, a registered investment advisor (MFS® McLean BuddenSM). Total firm assets are calculated at market value and include assets managed by MFS, MFSI, MFSI, MFSI Heritage Trust Company and MFS®McLean BuddenSM as well as assets managed by MFS and MFSI in a sub-advisory capacity on behalf of affiliated investment advisors that may or may not be registered under the United States Investment Advisers Act of 1940, such as MFS International (U.K.), Ltd. (MIL UK) and MFS Investment Management K.K. (MIMKK), as well as assets managed by MFS and MFSI on behalf of unaffiliated investment advisors that may or be registered under the United States Investment Advisers Act of 1940. Total firm assets for GIPS® purposes do not include assets of non-discretionary advisory relationships.

In November of 2011 MFS acquired McLean Budden Limited. Total firm assets from 31-Mar-2012 forward include the assets of institutional and pooled McLean Budden Limited products. Assets from 31-Dec-2012 forward include the McLean Budden Limited PPM product assets. A complete list of firm composites and descriptions, along with additional information regarding policies for calculating and reporting returns are available upon request.





1)	Firm ownership and organizational structure
2)	Investment management and client service personnel
3)	Investment philosophy
4)	Investment process - Research, risk management and portfolio construction
5)	Portfolio/account monitoring
6)	Performance and fees















Return Drivers									
Value (30+ strategies) Assets • Book value, book ex-goodwill & tangible book • Cash & current assets net of debt / liabilities Gross income & sales • Sales – current & cyclically adjusted • Gross income – current & cyclically adjusted Earnings • Operating income • Net Income & analyst estimates • Net Rome & analyst estimates • Recurring earnings Cash flows & dividends • Gross, operational & free cash-flow • Dividend yield, growth, pay-out & track record	Quality (60+ strategies)         Profitability <ul> <li>Refurns on asset, capital &amp; equity</li> <li>Current, change, industry relative &amp; cyclically adjusted</li> </ul> <ul> <li>Profitability drivers</li> <li>Operating margins – change &amp; normalised</li> <li>Asset &amp; inventory turnover – industry relative &amp; cyclically adjusted</li> </ul> Stability <ul> <li>Growth stability – sales, earnings, cash flow, margins &amp; industry</li> <li>Capital management – dividends, buybacks &amp; dilution</li> </ul> Financial Strength <ul> <li>Non financials – leverage, debt service &amp; liquidity</li> <li>Financials – funding, leverage/capital, liquidity &amp; asset quality</li> </ul>								
	Diversification & Risk								
Market based (10+ strategies)	Warning flags (15+ strategies)								
Analyst coverage & revisions Price persistence Return reversal & excess volatility Tracing activity & beta	<ul> <li>Excessive accruals or inventories</li> <li>High capital expenditure/intensity</li> <li>Acquisitive growth</li> <li>Diluter or non-payer</li> </ul>								





	1													
Stock Se	electic	on												
Кеу	Ranking by Global Value (Green is high and Red is low)						und a W	nd Tra eights						
Stock	Country	Industry	Dividend	Market Cap Sm	Value Rank	Profit- ability	Stability	Financial Strength	Quality	Fund Wt	Trade	Amount	Hot/Cold	Comment
Snt Corp	Japan	Auto	3.3%	110	0%	79%	91%	15%	Low	0.02%			HOT.M	Small weight in deep value stock
K&S Ag	Germany	Fertilizers	7.5%	4,856	0%	26%	57%	19%	Medium	0.22%			TEPID.NT	Out of favour fertilizer industry
Statoil Asa	Norway	Intgr O&G	5.0%	71,847	1%	13%	32%	24%	High	0.45%			TEPID.NT	High Quality/Yield stock
Astrazeneca	UK	Pharma	6.3%	63,869	2%	4%	23%	16%	High	0.73%			TEPID.NT	High Yield & strong balance shee
Gree Inc	Japan	Software	2.0%	1,663	2%	1%	27%	7%	High	0.02%			TEPID.T	High quality
Jsc Mmc Norilsk Ni	Russia	Mining	8.3%	23,376	2%	5%	57%	32%	Medium	0.08%	Buy	0.07%	TEPID.M	Cyclical Value
Amlin	UK	P&C Insur	6.6%	3,273	3%	18%	27%	31%	High	0.33%			HOT.NT	High quality insurance
Vale S.A.	Brazil	Mining	5.8%	80,276	4%	15%	55%	36%	Medium	0.17%			COLD.M	Cyclical Value
Enel	Italy	Utilities	4.9%	38,822	5%	54%	22%	64%	Low	0.29%	Sell	-0.07%	HOT.M	Trim hot stock
China Mobile Ltd	China	Telecoms	4.2%	215,672	6%	5%	1%	5%	High	0.23%	Buy	0.03%	COLD.NT	Top up cold stock
ing Groep Nv	Netherlands	Complex Bank	0.0%	44,735	6%	44%	52%	96%	Low	0.15%			TEPID.M	Deep value Financial
Mitsui & Co	Japan	Trading Co	3.4%	25,787	7%	68%	61%	54%	Low	0.08%			TEPID.NT	Cyclical value
Michelin (Cgde)	France	Auto	3.1%	19,858	7%	23%	31%	21%	High	0.57%			TEPID.M	High quality auto
BNP Paribas	France	Complex Bank	2.9%	86,237	8%	54%	27%	18%	High	0.58%			TEPID.M	High quality bank
Sun Hung Kai Prop	Hong Kong	Real Estate	3.3%	35,271	8%	51%	20%	8%	Medium	0.17%	Buy	0.08%	TEPID.M	HK property discount to book
Telefonica Sa	Spain	Telecoms	2.9%	73,902	15%	26%	23%	62%	Medium	0.25%	Sell	-0.02%	HOT.M	Trim hot stock
Ericsson(Lm)Tel	Sweden	Comm Equip	3.2%	43,580	16%	39%	63%	11%	Medium	0.24%			TEPID.M	European tech
Rogers Communications	Canada	Telecoms	3.9%	22,579	16%	6%	3%	57%	High/Medium	0.46%			TEPID.NT	Better quality Telecom
Eramet	France	Mining	1.8%	2,650	18%	69%	87%	40%	Low	0.04%			TEPID.M	Cyclical value
Cie De St-Gobain	France	Building Prod	3.2%	28,928	18%	61%	39%	53%	Low	0.26%			HOT.M	Cyclical value
Cobham	UK	Defence	3.6%	4,903	24%	21%	3%	33%	High	0.25%			COLD.M	Quality defence stock
China Corn Oil Com	China	Food & Drink	1.3%	587	36%	13%	15%	1%	High	0.03%	Sell All	-0.03%	HOT.M	Sell, dropped out top 1/3rd



	Car	Canada G		Continental Europe		Kingdom	Jat	pan	Pacific ex Japan		Emerging Markets		Total	
	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	BM
Complex Banks	0.0%	0.1%	2.7%	3.8%	1.6%	1.9%	0.4%	1.0%	0.9%	0.1%	0.0%	0.4%	5.6%	7.4%
Simple Banks	0.2%	1.8%	1.4%	0.4%	0.1%	0.4%	1.8%	1.0%	0.3%	2.7%	0.5%	3.8%	4.3%	10.1%
Life & Health Insurance	0.2%	0.5%	2.5%	1.4%	0.7%	0.7%	0.2%	0.1%	0.0%	0.4%	0.2%	0.6%	3.8%	3.7%
Prop and Casualty Insurc	0.0%	0.0%	1.4%	0.4%	1.2%	0.0%	0.0%	0.3%	0.0%	0.2%	0.0%	0.1%	2.6%	1.0%
Asset Managers	0.1%	0.1%	1.1%	0.3%	0.6%	0.2%	0.0%	0.0%	0.1%	0.2%	0.0%	0.3%	2.0%	1.1%
Real Estate	0.3%	0.2%	0.3%	0.3%	0.0%	0.2%	0.1%	0.9%	2.1%	1.3%	0.1%	0.4%	3.0%	3.3%
Total Financials	0.8%	2.7%	9.4%	6.7%	4.1%	3.4%	2.6%	3.3%	3.4%	4.8%	0.8%	5.7%	21.6%	26.6%



	Canada		Continent	Continental Europe		United Kingdom		Japan		Pacific ex Japan		Emerging Markets		otal
	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	вм	Fund	ВМ
Health Care	0.0%	0.2%	5.9%	4.7%	2.0%	1.3%	1.4%	0.9%	0.1%	0.2%	0.1%	0.3%	9.8%	7.7%
Telecommunication Services	0.3%	0.2%	3.3%	1.4%	0.3%	1.3%	0.9%	0.8%	0.6%	0.3%	2.0%	1.6%	7.7%	5.6%
Consumer Staples	0.1%	0.2%	1.9%	3.8%	2.7%	2.6%	0.7%	1.0%	1.2%	0.6%	0.5%	1.9%	7.1%	10.1%
Utilities	0.0%	0.1%	2.0%	1.2%	0.4%	0.6%	0.0%	0.4%	0.0%	0.3%	1.3%	0.7%	3.9%	3.4%
Consumer Discretionary	0.5%	0.4%	3.9%	3.6%	1.6%	1.2%	3.5%	3.3%	1.0%	0.5%	2.1%	1.9%	13.0%	10.9%
Industrials	0.1%	0.5%	3.8%	4.5%	2.5%	1.1%	3.2%	3.0%	1.6%	0.8%	1.3%	1.3%	12.8%	11.2%
Information Technology	0.1%	0.1%	1.0%	1.3%	0.3%	0.2%	1.7%	1.6%	0.2%	0.1%	2.0%	3.2%	5.5%	6.4%
Energy	1.0%	1.9%	3.0%	1.9%	1.5%	2.5%	0.8%	0.2%	0.4%	0.3%	2.5%	2.5%	9.5%	9.3%
Materials	0.6%	0.9%	2.5%	2.4%	1.8%	1.5%	1.3%	1.0%	0.8%	1.1%	1.9%	2.1%	8.1%	8.9%
Financials	0.8%	2.7%	9.4%	6.7%	4.1%	3.4%	2.5%	3.3%	3.3%	4.8%	0.8%	5.7%	21.6%	26.6%
Total	3.7%	7.2%	36.6%	31.6%	17.3%	15.6%	16.2%	15.5%	9.2%	9.0%	14.7%	21.1%	100%	100%

Slock Position	S DV SECIOIS			
	e by ecolore			
Health Care	Consumer Staples	Telecommunication Services	Utilities	Information Technology
Merck Kgaa(DE)	Reckitt Benck Grp(GB)	Telenor Asa(NO)	Gas Natural Sdg(ES)	Fuji Film Hld Corp(JP)
Teva Pharma Ind(IL)	Suedzucker Ag(DE)	Vodacom Group Limi(ZA)	Enagas Sa(ES)	Delta Electronics(TH)
Smith & Nephew(GB)	Ahold(Kon)Nv(NL)	Belgacom Sa(BE)	Red Electrica Corp(ES)	Giant Interactive Group Inc(CN)
Otsuka Hldgs Co(JP)	Coca-Cola Amatil(AU)	Teliasonera Ab(SE)	Aboitiz Power Corp(PH)	Tpk Holding Co Ltd(TW)
H.Lundbeck A/S(DK)	Oriflame Cosmetics(SE)	Ntt Docomo(JP)	Centrica(GB)	Powertech Technolo(TW)
lpsen(FR)	Morrison(W)Suprmkt(GB)	Swisscom Ag(CH)	Perusahaan Gas Neg(ID)	Neopost(FR)
Orion Corporation(FI)	1st Pacific Co(HK)	Telstra Corp Ltd(AU)	A2a Spa(IT)	Konica Minolta HId(JP)
Astrazeneca(GB)	Kt&G Corporation(KR)	Rogers Communications Inc(CA)	Enel(IT)	Realtek Semicond(TW)
Recordati(IT)	Delhaize Group(BE)	Bezeq Israel Telcm(IL)	Tractebel Energia(BR)	Toshiba Tec Corp(JP)
Boiron(FR)	Tesco(GB)	Ziggo Nv(NL)	Rwe Ag(DE)	Radiant Opto-Elect(TW)
Bayer Ag(DE)	Nestle Sa(CH)	Vodafone Group(GB)	National Grid(GB)	Taiwan Semicon Man(TW)
Novo-Nordisk As(DK)	Anheuser-Busch Inb(BE)	Softbank Corp(JP)	E.On Ag(DE)	Samsung Electronic(KR)
Roche Hldgs Ag(CH)	Diageo(GB)	China Mobile Ltd(CN)	IberdrolaSa(ES)	Sap Ag(DE)
Industrials	Consumer Discretionary	Energy	Materials	Financials
A.P. Moller-Maersk(DK)	Michelin (Cgde)(FR)	Omv Ag(AT)	Anglo American(GB)	Royal Bk Scot Grp(GB)
Bae Systems(GB)	Daihatsu Motor Co(JP)	Inpex Corporation(JP)	Yara International(NO)	Hannover Rueckvers(DE)
Vinci(FR)	Continental Ag(DE)	Lukoil Oil Company(RU)	Kghm Polska Miedz(PL)	Investor Ab(SE)
Smiths Group(GB)	Valeo(FR)	Statoil Asa(NO)	Antofagasta(GB)	Macquarie Gp Ltd(AU)
Atlantia Spa(IT)	British Sky Broadc(GB)	Amec(GB)	Icl-Israel Chem(IL)	Amlin(GB)
Thales(FR)	Plastic Omnium(FR)	Fred Olsen Energy(NO)	K&S Ag(DE)	Sampo Oyj(FI)
Alstom(FR)	Hyundai Mobis(KR)	Worleyparsons Ltd(AU)	Vale S.A.(BR)	Aberdeen Asset Mgt(GB)
Comfortdelgro Corp(SG)	Seb Sa(FR)	Canadian Oil Sands Ltd(CA)	Sumitomo Metal Mng(JP)	Swiss Re Ag(CH)
Cobham(GB)	Eutelsat Communica(FR)	Tgs Nopec Geoph.Co(NO)	Vedanta Resources(GB)	Societe Generale Sa(FR)
Balfour Beatty(GB)	Nokian Renkaat Oyj(FI)	Kazmunaigaz(KZ)	Semapa Soc Invest(PT)	Cnp Assurances(FR)
Siemens Ag(DE)	Toyota Motor Corp(JP)	Bg Group(GB)	Bhp Billiton Ltd(AU)	Cmnwlth Bk Of Aust(AU)
Abb Ltd(CH)	Daimler Ag(DE)	Royal Dutch Shell(NL)	Glencore Intl Pic(GB)	Westpac Bkg Corp(AU)
Schnoider Electric(ED)	Honda Motor Co(IR)	Petrol Bracileiros(BR)	Air Liquide(L')(EP)	Roual Rk Cda Montreal Quo(CA)







Industry standard risk models plus QEP Portfolio Analyser: - Comprehensive 15 page report - Produced daily for all funds - Summary email of key characteristics - Scenario analysis Portfolio Manager daily reports: - Large stock returns and portfolio weights - Eurod porformance attribution	Scenario Last 10 Years Last 5 Yrs All Markets Last 5 Yrs Exp Wgd (3Yr haff life) Last 5 Yrs Exp Wgd (3Yr haff life) All Exp Wgd (3Yr haff life) Stressed Enriromments Early Cycle Bengin Enviormments Late Cycle Up Markets Doom Markets Value Markets Value Markets	Tracking Error 2 69% 2 84% 2 85% 2 86% 2 95% 2 97% 2 97% 2 97% 2 99% 2 88% 2 99% 2 99% 2 99% 2 99%	Absolute Fund Vol           15.4%           17.2%           14.7%           17.2%           16.6%           15.2%           12.3%           12.4%           14.8%	Analysis Bench Vol 15.1% 17.1% 14.5% 16.7% 17.9% 17.1% 16.7% 14.4% 12.2% 12.5% 12.5%	+ Beta 1.01 1.00 0.99 1.00 1.00 1.00 0.98 1.03 0.98 0.97 1.01	Implied Alpha* 1.12% 1.06% 1.12% 1.16% 2.86% 0.59% 0.61% 1.27% 0.79%
Industry standard risk models plus QEP Portfolio Analyser: - Comprehensive 15 page report - Produced daily for all funds - Summary email of key characteristics - Scenario analysis Portfolio Manager daily reports: - Large stock returns and portfolio weights - Eurod porformance attribution	Scenario Last 10 Years Last 5 Yrs All Markets Last 10 Yrs Exp Wgrd (3Yr half life) Last 5 Yrs Exp Wgrd (3Yr half life) All Exp Wgrd (3Yr half life) Stressed Environments Early Cycle Benign Environments Late Cycle Up Markets Dorom Markets Value Markets Value Markets	Tracking Error           2.69%           2.84%           2.85%           2.86%           2.96%           2.97%           2.73%           2.98%           2.88%           2.90%           2.94%           2.94%           2.94%           2.94%	Absolute Fund Vol 15.4% 17.2% 14.7% 17.0% 18.1% 17.2% 16.6% 15.2% 12.3% 12.4% 14.8%	Bench Vol 15.1% 17.1% 14.5% 16.7% 17.1% 16.7% 14.4% 12.2% 12.5% 14.4%	Beta 1.01 1.00 0.99 1.00 1.00 1.00 0.98 1.03 0.98 0.97 1.01	Implied Alpha* 1.12% 1.06% 1.12% 1.16% 1.12% 2.86% 0.59% 0.59% 0.59% 0.72%
<ul> <li>QEP Portfolio Analyser:</li> <li>Comprehensive 15 page report</li> <li>Produced daily for all funds</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Last 10 Years Last 10 Yrs Cap Vigtd (3Yr haf life) Last 5 Yrs Exp Vigtd (3Yr haf life) Last 5 Yrs Exp Vigtd (3Yr haf life) Al Exp Vigtd (3Yr haf life) Stressed Enriromments Early Cycle Bengn Environments Late Cycle Down Markets Down Markets Value Markets	2.69% 2.84% 2.85% 2.96% 2.96% 2.97% 2.73% 2.99% 2.88% 2.90% 2.90% 2.94% 2.94%	15.4% 17.2% 14.7% 17.0% 18.1% 17.2% 16.6% 15.2% 12.3% 12.4% 14.8% 14.8%	15.1% 17.1% 14.5% 16.7% 17.9% 17.1% 16.7% 14.4% 12.2% 12.5% 14.4%	1.01 1.00 0.99 1.00 1.00 1.00 0.98 1.03 0.98 0.97 1.01	1.12% 1.06% 1.12% 1.16% 1.19% 2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>QEP Portfolio Analyser:</li> <li>Comprehensive 15 page report</li> <li>Produced daily for all funds</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Last 5 Yrs All Markets Last 10 Yrs Exp Wydd (3Yr half life) Last 5 Yrs Exp Wydd (3Yr half life) Al Exp Wydd (3Yr half life) Stessed Environments Early Cycle Benign Environments Late Cycle Down Markets Valke Markets Valke Markets	2.84% 2.85% 2.96% 2.96% 2.97% 2.73% 2.99% 2.88% 2.90% 2.94% 2.94% 2.76%	17.2% 14.7% 17.0% 18.1% 17.2% 16.6% 15.2% 12.3% 12.4% 14.8% 14.8%	17.1% 14.5% 16.7% 17.9% 17.1% 16.7% 14.4% 12.2% 12.5% 14.4%	1.00 0.99 1.00 1.00 0.98 1.03 0.98 0.97 1.01	1.06% 1.12% 1.16% 1.09% 1.12% 2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>Comprehensive 15 page report</li> <li>Produced daily for all funds</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eucl porformance attribution</li> </ul>	All Markets Last 10 Yrs Exp Wydd (3Yr half life) Last 5 Yrs Exp Wydd (3Yr half life) All Exp Wydd (3Yr half life) Stressed Environments Early Cycle Benign Environments Late Cycle Dorw Markets Valw Markets Valw Markets	2.85% 2.86% 2.96% 2.97% 2.73% 2.99% 2.88% 2.90% 2.94% 2.94% 2.76%	14.7% 17.0% 18.1% 17.2% 16.6% 15.2% 12.3% 12.4% 14.8%	14.5% 16.7% 17.9% 17.1% 16.7% 14.4% 12.2% 12.5% 14.4%	0.99 1.00 1.00 1.00 0.98 1.03 0.98 0.97 1.01	1.12% 1.16% 1.09% 1.12% 2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>Comprehensive 15 page report</li> <li>Produced daily for all funds</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Last 5 Yrs Exp Wgd (3Yr haif life) Last 5 Yrs Exp Wgd (3Yr haif life) Al Exp Wgd (3Yr haif life) Stresset Exminoments Early Cycle Bengin Emiomments Late Cycle Up Markets Dorn Markets Value Markets Caably Markets	2.86% 2.96% 2.97% 2.73% 2.99% 2.88% 2.90% 2.94% 2.94%	17.0% 18.1% 17.2% 16.6% 15.2% 12.3% 12.4% 14.8% 14.8%	17.9% 17.9% 16.7% 16.7% 14.4% 12.2% 12.5%	1.00 1.00 0.98 1.03 0.98 0.97 1.01	1.10% 1.09% 1.12% 2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>Produced daily for all funds</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	All Exp Wgld (3'r haf life) Stressed Environments Early Cycle Benign Environments Late Cycle Up Markets Down Markets Value Markets Qualit Warkets	2.97% 2.73% 2.99% 2.88% 2.90% 2.94% 2.94%	17.2% 16.6% 15.2% 12.3% 12.4% 14.8%	17.1% 16.7% 14.4% 12.2% 12.5% 14.4%	1.00 0.98 1.03 0.98 0.97 1.01	1.12% 2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>Produced daily for all fullos</li> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eucl porformance attribution</li> </ul>	Stressed Environments Early Cycle Benign Environments Late Cycle Up Markets Down Markets Value Markets Qualit Warkets	2.73% 2.99% 2.88% 2.90% 2.94% 2.76%	16.6% 15.2% 12.3% 12.4% 14.8%	16.7% 14.4% 12.2% 12.5% 14.4%	0.98 1.03 0.98 0.97 1.01	2.86% 0.59% 0.61% 1.27% 0.79%
<ul> <li>Summary email of key characteristics</li> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Early Cycle Benign Environments Late Cycle Up Markets Down Markets Value Markets Quality Markets	2.99% 2.88% 2.90% 2.94% 2.76%	15.2% 12.3% 12.4% 14.8%	14.4% 12.2% 12.5% 14.4%	1.03 0.98 0.97 1.01	0.59% 0.61% 1.27% 0.79%
<ul> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eucl porformance attribution</li> </ul>	Benign Environments Late Cycle Up Markets Down Markets Value Markets Quality Markets	2.88% 2.90% 2.94% 2.76%	12.3% 12.4% 14.8% 14.7%	12.2% 12.5% 14.4%	0.98 0.97 1.01	0.61% 1.27% 0.79%
<ul> <li>Scenario analysis</li> <li>Portfolio Manager daily reports:</li> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Late Cycle Up Markets Down Markets Value Markets Quality Markets	2.90% 2.94% 2.76%	12.4% 14.8%	12.5%	0.97	1.27%
Portfolio Manager daily reports: – Large stock returns and portfolio weights Fund porformance attribution	Up Markets Down Markets Value Markets Quality Markets	2.94%	14.8%	14.4%	1.01	0.79%
Portfolio Manager daily reports: – Large stock returns and portfolio weights Fund porformance attribution	Value Markets Quality Markets	2.76%		44.00/	0.07	0.400
Portfolio Manager daily reports: – Large stock returns and portfolio weights Eurod porformance attribution	Quality Markets		14.00/	14.9%	1.01	2.40%
Large stock returns and portfolio weights     Euclide portformance attribution		2.04%	14.6%	14.376	0.98	3 15%
<ul> <li>Large stock returns and portfolio weights</li> <li>Eurod portformance attribution</li> </ul>	Value Quality Market	2.89%	13.9%	13.9%	0.98	3.15%
Eurod performance attribution	Non-Value or Quality Market	2.76%	13.7%	13.8%	0.98	-1.30%
Fund porformance attribution	Glamour Markets	2.99%	14.7%	14.4%	1.00	2.98%
	Small Outperforms	2.85%	14.9%	14.7%	1.00	2.98%
	Large Outperforms	2.93%	14.8%	14.8%	0.98	-2.19%
<ul> <li>Significant changes in Value and Quality ranks</li> </ul>	High VIX Market	2.79%	15.8%	15.8%	0.99	2.56%
Corporate actions, trade flags, currency positions	Low VIX Market	2 70%	14.5%	14 3%	1.01	0.16%
- Corporate actions, trade hays, currency positions	High Cyclicality	2.93%	12.9%	13.2%	0.96	0.04%
<ul> <li>Summary of all fund optimization results</li> </ul>	Low Cyclicality	2.92%	16.9%	16.4%	1.02	2.13%
	Rising Cyclicality	2.79%	15.0%	14.5%	1.01	1.19%
	Falling Cyclicality	2.79%	16.1%	16.2%	0.98	1.41%
	High Risk Aversion	2.62%	16.4%	16.2%	1.00	2.86%
	Low Risk Aversion	2.93%	13.5%	13.6%	0.98	0.75%
	KISING KISK Aversion	2.82%	16.2%	16.4%	0.98	1.44%





	uuic		
Segregated acc	ount fees		
Asset amount	Mana	igement fee	
First \$100 million:		0.70%	
\$100-200 million:		0.55%	
Thereafter		0.40%	Average fee assuming account size of \$300m: 55bp pa
Performance fee option Typically a base of 50% of t arry forward provisions. W Pooled fees	he management fee e are happy to discu	plus 12.5% of sim ss the option of pe	ple relative outperformance (depending on strategy and account size) with appropriate high water mark ar rformance fees on a case by case basis as parameters will vary by size of the account.
Performance fee option Typically a base of 50% of to sarry forward provisions. W Pooled fees Fees represent mana qualify for a 10% redu Asset amount	he management fee e are happy to discu gement fees onl uction in manag Global ex US Value (standard)	plus 12.5% of sim ss the option of pe ly. Additional f ement fee. Fee for seed client	ple relative outperformance (depending on strategy and account size) with appropriate high water mark an rformance fees on a case by case basis as parameters will vary by size of the account.
Performance fee option Typically a base of 50% of to arry forward provisions. W Pooled fees Fees represent mana qualify for a 10% redu Asset amount Vehicle	he management fee e are happy to discu gement fees on uction in manag Global ex US Value (standard) 3c7	plus 12.5% of sim ss the option of pe ly. Additional 1 ement fee. Fee for seed client 3c7	ple relative outperformance (depending on strategy and account size) with appropriate high water mark an rformance fees on a case by case basis as parameters will vary by size of the account.
Performance fee option Typically a base of 50% of to carry forward provisions. W Pooled fees Fees represent mana qualify for a 10% redu Asset amount Vehicle First \$50 million:	he management fee e are happy to discu gement fees onl uction in manag Global ex US Value (standard) <u>3c7</u> 0.65%	plus 12.5% of sim ss the option of pe ly. Additional 1 ement fee. Fee for seed client 3c7 0.59%	ple relative outperformance (depending on strategy and account size) with appropriate high water mark an rformance fees on a case by case basis as parameters will vary by size of the account.
Performance fee option Typically a base of 50% of t carry forward provisions. W Pooled fees Fees represent mana qualify for a 10% redu Asset amount Vehicle First \$50 million:	he management fee e are happy to discu gement fees onl uction in manag <i>Global ex US</i> <i>Value</i> (standard) <b>3c7</b> 0.65% 0.60%	plus 12.5% of sim ss the option of pe ly. Additional 1 ement fee. Fee for seed client 3c7 0.59% 0.54%	ple relative outperformance (depending on strategy and account size) with appropriate high water mark an rformance fees on a case by case basis as parameters will vary by size of the account.
Performance fee option Typically a base of 50% of t carry forward provisions. W Pooled fees Fees represent mana qualify for a 10% redu Asset amount Vehicle First \$50 million: \$50-100 million:	he management fee e are happy to discu gement fees onl uction in manag <i>Global ex US</i> <i>Value</i> <i>(standard)</i> <b>3c7</b> 0.65% 0.60% 0.55%	plus 12.5% of sim, ss the option of pe           by.         Additional 1           ement fee.         Fee for seed client           3c7         0.59%           0.54%         0.50%	ple relative outperformance (depending on strategy and account size) with appropriate high water mark an rformance fees on a case by case basis as parameters will vary by size of the account.





































	ntrated	Index										
	maleu	IIIUEX										
Country	Financials	Technology	Energy	Materials	Staples	Cons Disc	Telecoms	Industrials	Utilities	Health Care	Total	SOE
China	7.7%	1.8%	2.8%	0.6%	1.2%	1.1%	2.3%	1.2%	0.6%	0.2%	19.4%	11.7%
Korea	2.1%	5.6%	0.4%	1.5%	0.7%	2.9%	0.1%	1.9%	0.2%	0.1%	15.6%	0.2%
Brazil	3.4%	0.3%	1.8%	2.0%	1.9%	0.6%	0.3%	0.6%	0.6%	0.1%	11.6%	1.2%
Taiwan	2.0%	6.0%	0.1%	1.4%	0.4%	0.5%	0.6%	0.4%		0.0%	11.4%	0.4%
South Africa	2.0%	0.0%	0.8%	0.9%	0.5%	1.6%	1.0%	0.3%		0.4%	7.5%	0.0%
Russian	1.1%	0.0%	3.6%	0.5%	0.4%	0.0%	0.6%	0.0%	0.1%	0.0%	6.2%	1.7%
India	1.4%	1.2%	0.8%	0.4%	0.7%	0.4%	0.2%	0.2%	0.2%	0.4%	5.9%	0.5%
Mexico	0.9%			1.0%	1.5%	0.4%	1.0%	0.5%		0.0%	5.3%	0.0%
Malaysia	1.1%	0.0%	0.2%	0.2%	0.4%	0.4%	0.5%	0.5%	0.4%	0.1%	3.7%	0.4%
Thailand	1.0%	0.0%	0.5%	0.3%	0.2%	0.1%	0.3%	0.1%	0.0%	0.0%	2.5%	0.3%
Indonesia	0.9%		0.1%	0.2%	0.3%	0.4%	0.3%	0.1%	0.1%	0.1%	2.4%	0.9%
Turkey	0.9%		0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	0.0%	0.0%	1.7%	0.2%
Chile	0.3%	0.0%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.5%		1.7%	0.0%
Poland	0.9%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.2%	0.0%	1.7%	0.9%
Colombia	0.5%		0.3%	0.2%	0.1%				0.1%		1.2%	0.4%
Philippines	0.4%		0.0%	0.0%	0.1%	0.0%	0.1%	0.2%	0.1%		0.9%	0.0%
Peru	0.2%			0.2%	0.0%			0.0%	0.0%		0.4%	0.0%
Czech Republic	0.1%			0.0%	0.0%	0.0%	0.0%		0.1%	0.0%	0.2%	0.1%
Hungary	0.1%		0.1%	0.0%			0.0%		0.0%	0.0%	0.2%	0.0%
Egypt	0.1%			0.0%	0.0%	0.0%	0.1%	0.0%		0.0%	0.2%	0.0%
Morocco	0.1%		0.0%	0.0%	0.0%		0.0%	0.0%			0.1%	0.0%
Total	27.1%	14.8%	11.9%	9.9%	8.9%	8.8%	7.6%	6.2%	3.2%	1.5%	100%	19.1%
505	9.1%	0.0%	E 1%	0.6%	0.1%	0.2%	2.9%	0.9%	1.29/	0.1%	10.1%	






All Managers     Value Managers     Growth Managers       Value Outperforms by 2%     0.3%     1.1%     -0.2%       EM Outperforms by 2%     0.1%     0.1%     0.3%	Managere	excess return is exp	lained by	
Value Outperforms by 2%         0.3%         1.1%         -0.2%           EM Outperforms by 2%         0.1%         0.1%         0.3%		All Managers	Value Managers	Growth Managers
EM Outperforms by 2% 0.1% 0.1% 0.3%	alue Outperforms by 2%	0.3%	1.1%	-0.2%
	M Outperforms by 2%	0.1%	0.1%	0.3%
Momentum Outperforms by 2%         0.2%         0.3%         0.5%	Iomentum Outperforms by 2%	0.2%	0.3%	0.5%
Market Breadth - High 1.0% 1.4% -0.5%	larket Breadth - High	1.0%	1.4%	-0.5%

## Active manager performance 3 Years to June 2013

A Model of Active Managers

	All Managers	Value Managers	Growth Managers
Value Underperformed	×	××	✓
EM Underperformed	××	××	ххх
Momentum Outperformed	✓	✓	<b>V V V</b>
Market Breadth Low	×	×	✓
Expected Manager Excess Performance	×××	****	~~

### Where are the new bubbles? Biotech, Social Media, Payments...

Stock	Industry	Market Cap \$m	Sale / Price	Price / Earnings	Forward Price / Earnings	3 year return (%)
Linkedin Corp	Software	29,641	23.8	738.1	127.8	n/a
Arm Hldgs	Semis	22,627	21.5	95.4	40.4	159.6
Facebook Inc	Software	122,789	20.1	204.6	56.1	n/a
Regeneron Pharmaceuticals	Biotech	31,603	18.2	37.3	64.3	1055.6
Tesla Mtrs Inc	Auto	23,440	17.7	Loss maker	134.5	845.8
Alexion Pharmaceuticals Inc	Biotech	22,957	17.3	65.4	36.2	264.8
Baidu Inc	Software	55,488	14.5	32.9	27.8	54.6
Tencent Hldgs Limi	Software	97,487	11.6	41.4	31.9	142.0
Celgene Corp	Biotech	64,653	10.8	41.7	23.1	172.9
Visa Inc	Cons Finance	124,548	10.8	22.9	22.0	166.4
Mastercard Inc	Cons Finance	81,758	10.5	27.3	23.2	205.0
Keyence Corp	Hardware	23,242	10.5	34.1	27.7	128.9

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Relative Benchm	nark Perl	formance	- Gross of F	ees - US	D		
Relative %	Global Core	Global Value	Global ex US Value	Global Value Extension	Global Quality	Global Blend	Emerging Markets
2000	2.0*	-	-	-	-	-	-
2001	1.1	-		-	-	-	-
2002	1.0	-	-	-	-	-	-
2003	0.5	-	-	-	-	-	-
2004	0.8	1.6*	-	-	-	-	-
2005	0.6	2.3	-	-	-	-	-
2006	0.6	6.2	2.6*	-	-	-	-
2007	-0.9	-5.7	-4.8	-	3.9*	-	-
2008	2.1	-0.4	0.6	5.4*	3.7	0.9*	-
2009	2.3	9.6	14.5	19.9	0.3	5.8	-
2010	2.3	3.6	7.0	9.1	5.4	4.4	-
2011	1.7	-1.8	2.9	-0.5	2.9	0.5	-
2012	0.0	-0.3	3.2	0.4	-0.1	0.6	2.4*
2013 YTD - August	0.9	2.6	3.6	4.1	2.7	2.6	4.7
Return – Annualised	1.2	1.5	3.5	6.9	3.6	2.7	5.1
Return – Total	24.6	22.7	31.1	45.8	22.0	18.1	7.1
Tracking Error (ex post)	1.1	3.7	3.8	5.6	3.5	2.3	2.7
Information Ratio	1.1	0.4	0.9	1.2	1.0	1.2	1.9
Benchmark	MSCI World	MSCI AC World	MSCI AC World ex US	MSCI AC World	MSCI AC World	MSCI AC World	MSCI EM
Inception	30-Jan-00	29-Oct-04	31-Aug-06	31-Jul-08	31-Oct-07	30-Sep-08	31-Mar-12
Track Record (years, months)	13,7	8,10	7,0	5,1	5,10	4,11	1,5
Return Target	+1%	+3%	+3%	+5%	+3%	+3%	+3%

Source: Schroders - Parformance represents QEP composites, gross of fees in USD terms as at 31 August 2013. Please reference the performance notes at the end of this presentation for composite disclosures. "Partial period, Relative performance for Core is MSCI World, EM is MSCI EM, International Value is MSCI AC World ex US, and remaining are MSCI AC World Net Dividends Re-Invested (NDR)... Performance shown is past performance tants in on concessarily a guide to future performance. The value of your investment can go down as well as up and is not guaranteed.

### **Global Performance**

Composite Versus Benchmark - Gross of Fees - USD

	Glob	al Core	Globa	al Value	Global e	x US Value	Globa Exte	I Value nsion	Global	Quality	Globa	I Blend	Eme	erging rkets
Absolute %	Composite	MSCI World	Composite	MSCI AC World	Composite	MSCI AC World ex US	Composite	MSCI AC World	Composite	MSCI AC World	Composite	MSCI AC World	Composite	MSCI EM
2000	-5.9*	-7.9*	-	-	-	-	-	-	-	-	-	-	-	-
2001	-15.7	-16.8	-	-	-	-	-	-	-	-	-	-	-	-
2002	-18.9	-19.9	-	-	-	-	-	-	-	-	-	-	-	-
2003	33.6	33.1	-	-	-	-	-	-	-	-	-	-	-	-
2004	15.6	14.7	11.1*	9.5*	-	-	-	-		-	-	-	-	-
2005	10.1	9.5	13.1	10.8	-	-	-	-		-	-	-	-	-
2006	20.6	20.1	27.1	21.0	13.8*	11.2*	-	-	-	-	-	-	-	-
2007	8.1	9.0	6.0	11.7	11.9	16.7	-	-	-1.6*	-5.5*	-	-	-	-
2008	-38.6	-40.7	-42.6	-42.2	-44.9	-45.5	-28.2*	-33.5*	-38.5	-42.2	-21.5*	-22.4*	-	-
2009	32.3	30.0	44.3	34.6	56.0	41.4	54.5	34.6	34.9	34.6	40.5	34.6	-	-
2010	14.0	11.8	16.2	12.7	18.2	11.2	21.8	12.7	18.0	12.7	17.1	12.7	-	-
2011	-3.8	-5.5	-9.2	-7.3	-11.4	-13.7	-7.9	-7.3	-4.5	-7.3	-6.9	-7.3	-	-
2012	15.9	15.8	15.8	16.1	20.0	16.8	16.5	16.1	16.0	16.1	16.7	16.1	6.0*	3.6*
2013 YTD – August	12.6	11.7	11.4	8.8	6.5	2.9	12.9	8.8	11.5	8.8	11.4	8.8	-5.5	-10.2
Return – Annualised	3.8	2.6	7.6	6.1	5.6	2.0	10.2	3.3	3.0	-0.5	9.5	6.7	0.2	-4.9
Return – Total	66.0	41.4	91.0	68.3	46.4	15.3	63.9	18.0	19.1	-3.0	55.9	37.9	0.2	-6.9
Inception	30-J	lan-00	29-C	ct-04	31-A	ug-06	31-J	ul-08	31-O	ct-07	30-S	ep-08	31-M	ar-12

Source: Schroders – Performance represents QEP composites, gross of fees in USD terms as at 31 August 2013. Please reference the performance notes at the end of this presentation for composite disclosures. "Partial period. MSCI benchmarks are Net Dividends Re-Invested (NDR). Performance shown is past performance and is not necessarily a guide to future performance. The value of your investment can go down as well as up and is not guaranteed

## QEP Investment Team

### Biographies

#### Justin Abercrombie Head of QEP Investment Team

Justin joined Schroders in 1996, was a founding member of the QEP team and led the development of the team and product range. He is the lead fund manager on all of the team's global equity strategies. Justin's investment career commenced in 1993 at quantitative asset manager Pareto Partners, where he developed currency, bond and equity strategies. He holds a BSc in Business Economics from the University of Reading and an MSc (distinction) in Econometrics from London Metropolitan University.

#### David Philpotts Head of Research, Portfolio Manager

David joined Schroders in London in 1996 as an economist before moving to the OEP team in 1999 helping to build the team's stock selection models. David left Schroders between 2001 and 2003 to run a hedge fund at Quaestor Investment Management. He then migrated to Australia where he re-joined Schroders in 2004 as Head of QEP Research. His investment career commenced at the Bank of England in 1990 as an Econometrician. David holds a BSc (first class) and an MSc (distinction) in Economics from the University of Warwick.

#### Stephen Langford, CFA Senior Analyst & Portfolio Manager

Since joining Schroders in 2003, Stephen has played an active role in all parts of the QEP investment process and in 2011 he was made Deputy Head of Research. Stephen's investment career commenced at Quaestor investment Management in 1999, where he was as a Senior Research Manager and portfolio manager of a Japanese market-neutral fluod. He holds a BSC (Hons) in Chemistry and Molecular Physics from the University of Nottingham, and a DPhil in Chemical Physics from the University of Oxford. He is also a CPA charterholder.

#### Stuart Adrian Senior Analyst & Portfolio Manager

Stuart joins Schroders in April 2013. Prior to joining Schroders Stuart spent six years as the Global Equity Strategist at Empirical Research Partners, a firm routinely ranked as one of Wall Street's top providers of portfolio strategy and quantitative research. Before that he spent a decade at Morgan Stanley as a Technology Analyst where he also ranked prominently in investor surveys. Stuart holds a BSc (Hons) in Economics from Durham University and is a qualified Chartered Accountant.

#### John Marsland Client Portfolio Manage

John joined Schroders in 2006 as client portfolio manager. Prior to joining Schroders John was Head of Portfolio Risk Advisory at Commerzbank Securities. John started his investment career in 1992 as a LK economist with UBS Phillips & Drew before moving on to roles in global strategy and asset allocation. He holds an MA in Economics from Cambridge University and an MSc in Economics from Birkbeck College, University of London. John is a CFA charterholder and board member of the CFA Society of the UK.

#### Client Portfolio Manager

Tim joined Schroders in 2009 and is a portfolio manager covering clients in Continental Europe and the Middle East. Tim has been working in the investment field since 1991. He holds an MEng in Electronic Engineering from the University of Southampton and an MS in Applied Statistics and Stochastic Modelling from Birkbeck, University of London. Tim is an Associate of the CFA Society of the UK.

#### Stephen Kwa

### Client Portfolio Manager – New York

Stephen has represented the team's capabilities in the Americas since 2011. He joined Schroders in 2006 as Head of Product & Marketing and Investment Specialist for QEP in Australia. His investment career commenced in 1993 and prior to Schroders he held consultant and product roles at Towers Perrin, BT Funds Management and Deutsche Asset Management in Australia and Japan. He holds an economics degree majoring in actuarial studies from Macquarie University and is a Fellow of the Institute of Actuaries of Australia.

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### **QEP** Investment Team

### **Biographies**

#### Ben Corris, CFA Analyst & Portfolio Manager

Ben joined Schroders in 2008 and is a portfolio manager analyst focusing on enhancements to the investment process. Ben is a CFA charterholder and has an MPhys (Hons) in Physics with Astrophysics from UMIST and a PhD in Atmospheric Physics from the University of Manchester.

#### Jeremy Humphries Research

Jeremy joined Schroders in 2011 and is a member of the team that focuses on researching enhancements to the investment process. His investment career commenced in 2007 at Pioneer Investments, where he worked as a Quantitative Capity Analyst responsible for research and model development. Jeremy has a BA in Mechanical Engineering from Trinity College Dublin, and an MSc in Quantitative Finance from University College Dublin. Paniel Swift

#### Research

Daniel joined the QEP research team in March 2013 after a successful internship with the QEP in summer of 2012. Daniel holds a Masters degree in Aeronautical Engineering from Bristol University.

#### Michael O'Brien, PhD Besearch

Michael joined Schroders in 2008 and focuses on enhancing QEP's stock selection models and implementing research ideas into the investment process. His investment career started in 2004 while holding a teaching and research position at the University of Sydney. Michael holds a BSc in Bicchemistry and a Bachelor of Commerce (Hons) in Finance & Economics from the University of Sydney, and a PhD in Finance from the University of Queensland.

#### Research

Paul joined Schroders in 2007. He is experienced in a range of programming languages and is responsible for developing the OEP team's optimisation and simulation systems. He joined Schroders from Mathworks where he was a Senior MATLAB Applications Engineer from 2006. Paul holds a BEng (first class) in Engineering from the University of Queensland.

#### Richard Lawson Research

Richard joined Schroders in 2008 and focuses on sector research and tools to enhance understanding of underlying economic drivers of company profitability. He worked for Macquarie Group as a Quantitative Analyst from 2003. Richard holds a BSc (Hons) in Mathematics from the University of Sydney, a DipEd (Secondary) in Education from the University of Sydney, and a Masters of Commerce in Funds Management from the University of New South Wales.

#### Head of QEP Research IT

Joel joined Schroders in 2012 and is a member of the team that focuses on researching enhancements to the investment process. Before joining Schroders Joel was a Senior Quantitative Analyst for emerging market equilies with State Strete Global Advisors in Boston. Joel has a BSc in Biology from the University of Geneva and an MSc in Mathematical and Computational Finance from the University of Montreal.

### QEP Research IT

Michael joined the QEP team as a graduate trainee in 2007. Today he is a member of the team which researches enhancements to the investment process with a specific focus on ensuring data integrity. He holds a BSc in Econometrics and Operations Research from the Erasmus University Rotterdam.

#### Jasdeep Gill QEP Research IT

Jasdeep joined Schroders in 2008 and moved onto the OEP Investment Team in 2012. He focuses on researching enhancements to the investment process. Jas joined Schroders from EDS Ltd where his investment career commenced in 2006, working in IT development for ABN AMRO. He holds a BSc (Hons) in Computer Science from Aston University.

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## **QEP** Investment Team

### Biographies

#### James Larkman Portfolio Manager

James joined Schroders in 2004 and is a portfolio manager. He is also responsible for ensuring effective implementation of investment strategies across client portfolios, which encompasses currency management, monitoring fund dispersion and efficient execution of trades. James holds a BSc in Economics from the University of Bath and an MSc in International Securities, Investment and Banking from the ICMA Centre at Reading University.

#### Ayse Serinturk Portfolio Manager

Ayse joined the QEP team in 2008 and is a portfolio manager. She is also responsible for ensuring the effective implementation of investment strategies across client portfolios, including trade execution and fund launches. Ayse holds a BA (first class) in Philosophy and an MA in Metaphysics from the University of Nottingham.

#### Liane Evans Assistant Portfolio Manager

Liane joined Schroders in 2011 and within QEP is responsible for investment strategy implementation with a particular focus on trade execution, cash flows, share exchanges and fund launches. She joined Schroders from F&C Investment Management, where she worked as an Investment Risk Analyst from 2009. Her investment career commenced in 2005. Liane holds a BSC (Hons) in Mathematics from the University of Manchester, and is a CFA charterholder and a CAIA charterholder.

#### Derek Power Product Manager - London

Derek joined CEP in 2006 and represents the team's investment capabilities to clients with a specific focus on the firm's institutional client base. He works closely with Schroders' regional distribution teams, providing technical input to the sales process and development of CEP products globally. His investment career commenced in 1998. Prior to joining Schroders Derek was primarily focused on client servicing for GLG Partners LP, London and previously State Street in Edinburgh.

#### Amy Dempsey Product Manager - London

Amy joined QEP in 2011 and represents the team's investment capabilities to clients with a specific focus on the firm's Intermediary client base. She works dosely with Schroders' regional distribution teams, providing specialist input on the marketing and communication of QEP products. Amy joined Schroders in 2005 and holds a BA (Hons) in English Language and Literature from Oxford University.

### Product Manager - Sydney

Rupeng joined QEP in 2009 and represents our product capabilities in Australia. Prior to joining Schroders she worked at Mercer Pty as an Actuarial Actuarial Consultant. Her investment career commenced in 2006 as an Actuarial Analyst with ALEA Actuarial Consulting Pty Ltd. Rupeng holds a double degree in Bachelor of Commerce (Actuarial) and Bachelor of Law from Macquarie University, has completed all the examinations of the CFA and is an Associate of the Institute of Actuaria.

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### **QEP** Investment Team

### Biographies

#### Justin Kew Product Executive – London

Justin joined Schroders in 2012 and supports the QEP Team in London. His investment career commenced in 2007 at J.P. Morgan working on the equity derivatives trading desk and most recently he worked in sales at J.P. Morgan Asset Management. Justin is a CFA charterholder and holds a M.Eng Electrical and Electronics Engineering from University of Sheffield

#### Jo Pycroft Product Executive – London

Jo joined Schroders in 2005, providing product support for a number of equity teams across the firm before joining QEP in 2012. Her investment career commenced in 2002 with GMO Asset Management, where she worked in marketing. Jo is a CFA charterholder and holds a BA in Philosophy and Psychology from Oxford University.

#### Katherine le Cordeur Product Executive – London

Katherine joined Schroders in 2010. Prior to joining the firm she held a client servicing position with Fauchier Partners. Katherine's investment career commenced in 2003 at Fidelity and in 2005 she joined Royal London Asset Management. Katherine holds a B A In Human Movement Science and a postgraduate degree in Marketing from the University of Cape Town.

#### Lisa Sahatjian Product Executive – New York

Lisa joined Schroders in 2010, providing support to the Product and Sales Team before joining the QEP team in 2013. Her investment career commenced in 2006 with Zais Group LLC, where she worked in data analysis. She holds an MBA in International Business from Montclair State University and a BA in Mathematics from The Richard Stockton College of New Jersev.

### David Curchin

Product Executive - Sydney

David joined Schroders in December 2012 to support the QEP team in Sydney. His investment career commenced in 2008 as an Analyst with Rural Funds Management. He holds a Master of Studies (Maths, Statistics and Finance) from the Australian National University and a Bachelor of Business (Honours) in Finance from Queensland University of Technology.

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## **Compliance Disclaimers**

### Composite disclosures

Definition of Firm. The Firm is defined as all accounts managed by Schroder Investment Management in the UK and US, by wholly owned subsidiaries of Schroders PLC. Prior to 1st January 2007 SIM London & SIM North America existed as two separate Firms which were compliant & writied as separate entities until 31st December 2006. The consolidation of these two Firms was made as part of a move towards creating one global Firm. Composite and Firm assets reported prior to 1st January 2007 represent these of the lagary firm which managed the product. Prior to 1st January 2011 the SPHk (Schroder Property Investment Management) Firm existed separate to the Schroder Investment Management UK and US Firm, from 1st January 2011 the SPHk (Schroder Property) Investment Management (Firm Schroder Investment Management) Firm existed separate to the Schroder Investment Management UK and US Firm, from 1st January 2011 the SPHk (Schroder Property) Investment for the standard of the Schroder Investment Management (Firm Schroder Investment Management) Firm existed separate to the Schroder Investment Management UK and US Firm, from 1st January 2011 the SPHk (Schroder Property) Investment (Firm) as a set of the Schroder Investment Management UK and US Firm, from 1st January 2011 the SPHk (Schroder Property) Investment (Firm) as a set of the Schroder Investment Management UK and US Firm, from 1st January 2011 the SPHk (Schroder Property) Investment (Firm) as a set of the Schroder Investment Management (Firm) as a set of the Schroder Investment Management (Firm) as a set of the Schroder Investment Management (Firm) as a set of the Schroder Investment (Firm) as a set of the Schroder (Firm) as a set of

Composite Construction. New accounts are included from the beginning of the first full month of management on a discretionary basis. Terminated accounts are excluded from the end of the last full month of discretionary management.

Calculation Methodology. The portfolio returns are time-weighted rates of return that are adjusted for cash flows. Portfolio returns are combined using beginning of period asset weights to produce the composite return. Periodic returns are geometrically linked to produce annual returns. Dividends on equities are recognised and the withholding tax. Since January 1999 dividends have been recognised as of the excludend data having previously been recognised on a cash basis. Performance results are presented before the deduction of management frees and custodant fresh and the trading expenses.

Dispersion. The dispersion of annual returns is measured by the asset weighted standard deviation of portfolio returns represented within the composite for the full year provided a minimum of 5 portfolios are available.

GIPS Compliance and Verification. Schroder Investment Management (UK & US) claims compliance with the Gibbal Investment Performance Standards GIPS® and has prepared and presented this report in compliance with the GIPS standards. Schroder Investment Management (UK & US) tab been independently verified for the periods January 1, 1996 to Discenter 31, 2012. The verification report(s) are available upon request. Verification assesses whother (1) the film has compliance with the GIPS standards on a firm-wide basis, and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification assesses whother (1) the firm's complex presentation.

Additional information. The exchange rates used are provided by WM. Each currency is valued at 4 pm on the last business day of the month. Additional information regarding policies for valuing portfolios, calculating and reporting returns and a description of all composites are available on request.

Composite Definition: QEP Global Core. Composite inception Date: 31/01/2000. Composite Creation Date: 03/12/2010. The composite currency is GBP. The QEP Global Core Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI World Index. (NDPI) through active investment in diversified. Value and Ouality style-based portiolos, with limited index-retuine visits. Composite accounts invest predominantly in equilies and equily-related socurities, although other limancial instruments are permitted. In July 2004 the name of the Composite changed from ISU - Global to the OEP - Global. In July 2008, the name of the composite changed from OEP - Global Core. These changes do not affect the Composite Initiery, investment decisions or strategy used. This description was redefined on 28/11/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to describe the investment strategy. Previous disclosures are available upon request.

Composite Definition: QEP Global Value. Composite Inception Date: 31/10/2004. Composite Creation Date: 21/12/2004. The composite currency is USD. The QEP Global Value Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI World Index (NDR) or compratibe index through active investment in diversitied, index-unconstrained, Value style-blased portfolios. Composite accounts invest prodominantly in equilities and equity-related securities, although other financial instruments are permitted. In December 2004 the name of the Composite changed from ISU - Global Active Value to QEP - Global Value. This change does not affect the Composite history, investment decisions or strategry used. This description was redefined on 29/11/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to describe the investment strategy. Previous disclosures are available upon request.

## **Compliance Disclaimers**

### Composite disclosures (continued)

Composite Definition: QEP Global ex-US Value. Composite Inception Date: 31/08/2006. Composite Creation Date: 01/11/2006. The composite currency is USD. The QEP Global ex-US Value Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI EAFE Index (NDR) or comparable index through active investment in diversified, index-unconstrained, Value style-biased portfolios. Composite accounts typically do not hold US securities, and invest predominantly in equilities and equily-related securities, although other financial instruments are permitted. This description was redefined on 29/11/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to describe the investment strategy. Previous disclosures are available upon request.

Composite Definition: QEP Global Quality. Composite Inception Date: 31/10/2007. Composite Creation Date: 01/02/2008. The composite currency is USD. The QEP Global Quality Composite (the "Composite") is comprised of all Schroder Investment Amagement (UK & US), fully discretionary accurats that are managed in a similar manner and seek to achieve a total return above the MSCI World Index (NDR) or comparable index through achieve investment in diversified, index-unconstrained, Quality syle-biased optical Policies. Composite counts invest products and equity-related securities, attributy of the test of the schrole and equity-related securities, attributy of the test of the schrole and equity-related securities, attributy of the test of detail used to describe the investment and test, relative and equity-relative disclosures are available upon request.

Composite Definition: QEP Global Blend. Composite Inception Date: 30/09/2008. Composite Creation Date: 15/01/2010. The composite currency is USD. The QEP Global Blend Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI World Index. (NDP) or comparable index through antwoi investment in diversitied, index-unconstrained, Value and Quality style-based portfolios. Composite composite currency is USD. The QEP Global Blend Composite (the "Composite") is index through antwoi investment in diversitied, index excontrist, which are quarker to the MSCI World Index. (NDP) or comparable index through antwoi investment indiversitied, index excontrist, still-based portfolios. Composite composite currency is USD. The QEP Global Blend Composite (the "Composite financial instruments are permitted. The composite accountes which use Composite. This description was redefined that price timing also a particular stocks which can affect dispersion within the composite. This description was redefined on 29/11/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to describe the investment strategy. Previous disclosures are available upon request.

Composite Definition: QEP Global Emerging Markets. Composite Inception Date: 31/03/2012. Composite Creation Date: 23/04/2012. The composite currency is USD. The QEP Global Emerging Markets Composite (the "Composite)" is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI Emerging Markets Index (NBP) or comparable index through active investment in diversified, index-unconstrained, Value and Quily Style-biased portfolios. Composite accounts in west predominantly in emerging market ocurrities, and in equilities and equity-related securities, atthough other financial instruments are permitted. This description was redefined on 29/1/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to description strategy. Previous disclosures are available upon request.

Composite Definition: OEP Global Yield. Composite Inception Date: 31/05/2012. Composite Creation Date: 20/07/2012. The composite currency is USD. The QEP Global Yield Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI ACWI Index (NDR) or MSCI Index (NDR) or MSCI ACWI Index (NDR) or MSCI Index (NDR) or MSCI Index (NDR) or MSCI ACWI Index (NDR) or MSCI Index (NDR) or MS

Composite Definition: QEP Global Value Extension. Composite Inception Date: 31/07/2008. Composite Creation Date: 22/04/2009. The composite currency is USD. The QEP Global Value Extension Composite (the "Composite") is comprised of all Schroder Investment Management (UK & US), fully discretionary accounts that are managed in a similar manner and seek to achieve a total return above the MSCI World Index (DND) or comparate Index Triving Active Investment In diversified, index-unconstrained, portfolios, style-biased towards Value and away from Low Quality. These added flexibility of shorting, with a maximum of 150% of MAV in long positions and a maximum of 50% of NAV in short positions. Composite accounts invest predominantly in equilies and equily-related securities, although other financial instruments are permitted. This description was redefined on 29/11/2012, the redefinition has been made to enhance the composite description by increasing the level of detail used to describe the investment strategy. Previous disclosures are available upon request.

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composite: conchmark currency: cross Retur	ns as of:	Schrode MSCI W US Dolla Dec-31-	er QEP- G orld (NDF ar 2012	ilobal Core 3)	acmont II	K North /	Amorico				
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Number of Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
2012	15.87%	15.41%	15.83%	13.03%	12.94%	8 (6)	0.19%	5.628.870.717	703.608.840	2.51%	223.940.416.622.14
2011	-3.84%	-4.22%	-5.54%	17.40%	17.54%	6 (6)	0.27%	3,705,886,798	617,647,800	1.90%	194,958,113,724.01
2010	14.05%	13.59%	11.76%	20.21%	20.52%	6 (4)	n/a	3,571,102,348	595,183,725	1.76%	202,946,283,267.48
2009	32.32%	31.80%	29.99%	23.37%	23.45%	5 (5)	0.35%	1,417,655,975	283,531,195	0.88%	161,183,088,769.55
2008	-38.62%	-38.86%	-40.71%	23.55%	23.81%	5 (5)	0.54%	925,224,765	185,044,953	1.03%	89,646,473,691.69
2007	8.15%	7.72%	9.04%	9.10%	9.42%	5 (5)	0.27%	1,729,347,297	345,869,459	1.07%	161,124,537,714.28
2006	20.65%	20.17%	20.07%	7.23%	7.30%	5 (4)	n/a	1,793,558,200	358,711,640	1.43%	125,031,929,762.39
2005	10.09%	9.65%	9.49%	8.07%	8.20%	5 (5)	0.04%	1,349,248,244	269,849,649	1.41%	95,717,167,333.40
2004	15.55%	15.09%	14.72%	8.17%	8.16%	5 (4)	n/a	945,678,413	189,135,683	0.92%	102,980,753,667.39
2003	33.59%	33.06%	33.11%	12.62%	12.31%	4 (4)	n/a	668,524,793	167,131,198	0.74%	90,920,233,385.14
2002	-18.92%	-19.24%	-19.89%	19.45%	19.35%	4 (2)	n/a	407,747,336	101,936,834	0.56%	73,419,656,617.89
2001	-15.68%	-16.02%	-16.82%	18.59%	18.18%	2 (1)	n/a	400,654,207	200,327,104	#DIV/0!	
Annualized 3 Year	8.31%	7.88%	6.93%	16.82%	16.98%						
Annualized 5 Year	0.64%	0.23%	-1.18%	20.68%	20.89%						
Annualized 7 Year	4.34%	3.93%	3.05%	18.02%	18.23%						
Annualized 10 Year	8.63%	8.20%	7.51%	16.06%	16.22%						
Autorited to real											

Benchmark Currency: Gross Retu Firm:	rns as of:	MSCI W US Dolla Dec-31- Schrode	orid (NDR ar 2012 ers Investi	ment Man	ue agement–l	UK North /	America				
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Number of Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
2012	15.79%	14.98%	15.83%	14.98%	12.94%	12 (10)	0.60%	9,386,537,425	782,211,452	4.19%	223,940,416,622.14
2011	-9.19%	-9.82%	-5.54%	19.31%	17.54%	10 (9)	0.33%	7,855,771,364	/85,5//,136	4.03%	194,958,113,724.01
2010	10.24%	42 26%	20.00%	29.00%	20.52%	10 (8)	1 46%	A 774 576 007	/23,3/2,090	3.3/70	202,940,265,207.40
2009	-44.20%	43.20%	-40 7196	20.00%	23.4370	10 (8)	0.97%	3 279 011 659	477,457,610 207 261 467	2.9070	20 646 472 601 60
2008	-42.30%	5 74%	9.04%	11 07%	9.47%	6 (4)	0.8/%	2,378,011,038	394 923 389	1 47%	161 124 537 714 28
2005	27 11%	26.22%	20.07%	8 68%	7 30%	4(2)	n/a	877 904 628	219 476 157	0.70%	125 031 929 762 39
2005	13.15%	12.36%	9.49%	9.57%	8.20%	2 (1)	n/a	167.372.721	83,686,360	0.17%	95,717,167,333,40
Annualized 3 Year	6.92%	6.17%	6.93%	17.95%	16.98%	- (-)	.,	,			
Annualized 5 Year	0.25%	-0.45%	-1.18%	23.73%	20.89%						
Annualized 7 Year	4.53%	3.80%	3.05%	20.76%	18.23%						
Annualized S.L <sup>3</sup>	6.83%	6.08%	4.88%	19.63%	17.22%						
2008 2007 2006 2005 Annualized 3 Year Annualized 5 Year Annualized 5 Xear Annualized S.L <sup>3</sup>	-42.58% 5.97% 27.11% 13.15% 6.92% 0.25% 4.53% 6.83%	-42,98% 5,24% 26,62% 12,36% 6,17% 6,17% 6,08% 6,08%	-40.17% 9.04% 20.07% 9.49% 6.93% -1.1.8% 3.05% 4.88%	27,72% 8,63% 9,57% 17,95% 23,73% 20,76% 19,63%	23.81% 9.42% 7.30% 8.20% 16.98% 20.89% 20.89% 18.23% 17.22%	8 (7) 6 (4) 4 (2) 2 (1) monthly retu	v.8/% n/a n/a n/a	2,369,011,658 2,369,540,334 877,904,628 167,372,721	29/,223,339 394,923,339 219,476,157 83,686,360	2.65% 1.47% 0.70% 0.17%	89,049,47,357 161,124,537,71 125,031,929,76 95,717,167,33

Composite Benchmark Currency: Gross Retu	: :: rns as of:	Schrode MSCI E/ US Dolla Dec-31-	er QEP - G AFE (net c ar 2012	ilobal ex-l lividends	JS Value re-investe	d)	Amorico				
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Number of Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
2012 2011 2010 2009 2008 2007 Annualized 3 Year Annualized 5 Year Annualized 7 Year Annualized 10 Yea Annualized S.L <sup>3</sup>	20.02% -11.39% 18.17% 55.59% -44.92% 7.91% 1.54% r n/a r n/a 5.16%	19.18% -12.01% 17.34% 54.88% -45.30% 11.11% 7.16% 0.84% n/a n/a 4.42%	17.32% -12.14% 7.75% 31.78% -43.38% 11.17% 3.56% -3.69% n/a n/a 0.28%	16.40% 18.51% 20.37% 28.68% 30.77% 11.94% 18.42% 24.95% n/a n/a 22.75%	16.68% 19.52% 22.99% 25.62% 9.62% 19.65% 19.65% n/a n/a 21.29%	2 (1) 1 (1) 1 (1) 1 (1) 1 (1) 1 (1) 1 (1)	n/a n/a n/a n/a n/a	409,633,510 16,845,868 13,678,517 11,073,158 8,082,917 13,211,292	204,816,755 16,845,868 13,678,517 11,073,158 8,082,917 13,211,292	0.18% 0.01% 0.01% 0.01% 0.01%	223,940,416,622.14 194,958,113,724.01 202,946,283,267.48 161,183,088,769.55 89,646,473,691.69 161,124,537,714.28

Composite: Benchmark Currency: Bross Retu Firm:	: rns as of:	Schrode MSCI W US Dolla Dec-31- Schrode	er QEP – C orld (NDR ar 2012 ers Investi	Global Qua	ality agement–l	UK North A	America				
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Number of Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
2012 2011 2010 2009 2008 Annualized 3 Year Annualized 5 Year Annualized 7 Year Annualized 10 Yeas Annualized S.L <sup>3</sup>	16.05% -4.46% 18.02% 34.93% -38.54% 9.38% 1.65% n/a n/a 1.27%	15.24% -5.12% 17.20% 33.99% -38.97% 8.62% 0.94% n/a n/a 0.57%	15.83% -5.54% 11.76% 29.99% -40.71% 6.93% -1.18% n/a n/a -2.18%	13.26% 18.45% 17.98% 19.37% 24.20% 16.48% 19.90% n/a 19.58%	12.94% 17.54% 20.52% 23.45% 23.81% 16.98% 20.89% n/a 20.89% n/a 20.63%	9 (6) 7 (6) 6 (4) 4 (3) 3 (1)	0.28% 0.34% n/a n/a n/a	7,160,291,614 5,514,535,054 4,898,618,352 1,793,272,125 737,387,685	795,587,957 787,790,722 816,436,392 448,318,031 245,795,895	3.20% 2.83% 2.41% 1.11% 0.82%	223,940,416,622.14 194,958,113,724.01 202,946,283,267.48 161,183,088,769.55 89,646,473,691.69

omposite: enchmark: urrency: iross Retur	ns as of:	QEP – G MSCI W US Dolla Dec-31-2 Schrode	ilobal Blei orld (NDR ar 2012	nd Compo ) ment Man	osite	IK North	America				
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Number of Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
2012 2011 2010 2009 Annualized 3 Year Annualized S.L <sup>3</sup>	16.72% -6.90% 17.06% 40.45% 8.35% 8.28%	15.91% -7.55% 16.25% 39.48% 7.60% 7.52%	15.83% -5.54% 11.76% 29.99% 6.93% 5.26%	14.05% 18.93% 18.34% 23.64% 17.03% 21.66%	12.94% 17.54% 20.52% 23.45% 16.98% 20.93%	10 (6) 7 (5) 6 (6) 3 (1)	0.47% 0.35% 1.26% n/a	5,483,013,462 3,389,192,464 4,197,209,470 1,383,308,609	548,301,346 484,170,352 699,534,912 461,102,870	2.45% 1.74% 2.07% 0.86%	223,940,416,622.14 194,958,113,724.01 202,946,283,267.48 161,183,088,769.55

Composite: Benchmark:		QEP-Glo MSCI En	bal Emergi herging Ma r	ng Markets rkets Index	Total Return	n (NDR)					
Gross Return	ns as of:	Dec-31-2	2012								
Firm:		Schrode	s Investme	nt Manager	ment–UK N	orth Americ	a				
						Number of					
Year	Gross Composite Return	Net Composite Return	Benchmark Return	Composite Risk <sup>1</sup>	Benchmark Risk <sup>1</sup>	Portfolios (throughout period)	Account Dispersion <sup>2</sup>	Market Value at end of Period	Average Account Value at end of Period	Percentage of Firm Assets	Total Firm Assets <sup>4</sup>
Annualized 3 Year Annualized 5 Year	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a						
Annualized 7 Year	n/a	n/a	n/a	n/a	n/a						
Annualized S.L <sup>3</sup>	6.01%	5.26%	3.64%	n/a	n/a						
<ul> <li>Annualized s</li> </ul>	tandard deviatio	n of gross month	nly returns for t	he composite a	nd monthly retu	urns for the ben	chmark	ar			
		intion of annual	aroos roturns o	f accounts that	have been in th	he composite fo	r the entire ve	ar			

Composite: Senchmark: Currency: Gross Returr Girm:	ns as of:	QEP – Gi MSCI Wo US Dollar Dec-31-2 Schroder	lobal Value orld (NDR) r :012 rs Investme	Extension	Composite nent-UK No	orth America	a				
Vear	Gross Composite	Net Composite	Benchmark	Composite Pick <sup>1</sup>	Benchmark Rick <sup>1</sup>	Number of Portfolios (throughout period)	Account	Market Value at	Average Account Value	Percentage of	Total Firm Accetc <sup>4</sup>
2012 2011 2009 2009 Annualized 3 Year Annualized 5 Year Annualized 10 Year Annualized S.L. <sup>3</sup>	16.54% -7.89% 21.77% 54.52% 9.34% n/a n/a n/a 8.80%	15.44% -8.76% 20.63% 53.06% 8.31% n/a n/a n/a 7.77%	15.83% -5.54% 11.76% 29.99% 6.93% n/a n/a n/a 1.76%	14.28% 19.03% 17.11% 29.52% 16.80% n/a n/a 23.28%	12.94% 17.54% 20.52% 23.45% n/a n/a n/a 21.38%	1 (1) 1 (1) 1 (1) 1 (1) 1 (1)	n/a n/a n/a n/a	270,798,343 234,612,782 146,767,783 22,094,574	270,798,343 234,612,782 146,767,783 22,094,574	0.12% 0.12% 0.07% 0.01%	223,940,416,622.14 194,958,113,724.01 202,946,283,267.48 161,183,088,769.55
lized 5 Year lized 7 Year ized 10 Year alized S.L <sup>3</sup>	n/a n/a n/a 8.80%	n/a n/a n/a 7.77%	n/a n/a n/a 1.76%	n/a n/a 23.28%	n/a n/a n/a 21.38%						

## **Compliance Disclaimers**

Important information

The returns are presented as gross returns, including cash, reinvestment of dividends, interest and other income earned in the period and are calculated on a trade date basis after transaction charges (brokerage commissions), but before taxes and management and custody fees. Performance would have been reduced by such fees and the effect of these fees on performance compounds over time.

As an illustration see the chart below. The value of a \$5,000,000 account would be reduced by the following amounts due to the compound effect of the management fees. (This has been calculated assuming an assumed constant return of 10% per annum\* and a hypothetical management fee of 0.75% per annum, which has been applied on a simple average of opening and closing annual fund values):

	Gross Value	Net Value	Compound Effect
1 Year	\$5,500,000	\$5,447,500	\$52,500
3 Years	6,655,000	6,466,238	188,762
5 Years	8,052,550	7,675,491	377,059
10 Years	12,968,712	11,782,633	1,186,079

The assumed 10% return is hypothetical and should not be considered a representation of past or future returns. The actual effect of fees on the value of an account over time will vary with future returns, which cannot be predicted and may be more or less than the amount assumed in this illustration. Actual fees may differ from the assumed rate presented above. Please consult Part II of Form ADV for a description of the fees.

Source: Schroders

### Important Information Risks associated Quantitative Equity Products: All investments, domestic and foreign, involve risks including the risk of possible loss of principal. The market value of a fund's portfolio may decline as a result of a number of factors, including adverse economic and market conditions prospects of stocks in the portfolio, changing interest rates, and real or perceived adverse competitive industry conditions. Investing overseas involves special risks including among others, risks related to political or economic instability, foreign currency (such as exchange, valuation, and fluctuation) risk, market entry or exit restrictions, illiquidity and taxation. Emerging markets pose greater risks than investments in developed markets. The views and forecasts contained herein are those of the QEP Team. and are subject to change. The information and opinions contained in this document have been obtained from sources we consider to be reliable. No responsibility can be accepted for errors of facts obtained from third parties. Reliance should not be placed on the views and information in the document when taking individual investment and/or strategic decisions. The opinions stated in this presentation include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realized. The simulated results must be considered as no more than approximate representation of the strategy's potential performance. They are the result of quantitative back-testing which are based on a number of assumptions such as market liquidity and transaction costs. There are a number of limitations on the retroactive reconstruction of any performance results based on simulations. Past performance is not a guarantee of future results. Past performance is no guarantee of future results. Performance shown is gross of fees. The value of an investment can go down as well as up and is not guaranteed. Schroder Investment Management North America Inc. 875 Third Avenue, New York, NY 10022-6225 (212) 641 3800www.schroders.com/us

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## Presentation to: Contra Costa County Employees' Retirement Association

### International Value Equity \$US

As at 31 August 2013



Pyrford International Ltd 79 Grosvenor St London W1K 3JU T: 01144 20 7495 4641 E: information@pyrford.co.uk W: www.pyrford.co.uk BMO





Tony Cousins CFA CEO & CIO Pyrford International Ltd T: 01144 20 7399 2210 E: anthony.cousins@pyrford.co.uk



Mark Osterkamp Relationship Manager BMO Global Asset Management T: 310 321 7852 E: mark.osterkamp@BMO.com

# Firm Profile – Global Investment Expertise



1As reported April 30, 2013

2AUM reported as of April 30, 2013, and includes discretionary and non-discretionary assets under management.

3AUM reported as of April 30, 2013, and includes \$43.13 billion in AUM for BMO Asset Management U.S., \$2.73 billion in AUM for Monegy, Inc. (a subsidiary of BMO Asset Management Corp.), \$7.74 billion in AUM for Taplin, Canida & Habacht, LLC (a majority-owned subsidiary of BMO Asset Management Corp.) and \$4.13 billion in AUM for BMO Retirement Services and BMO Trust and Custody Services (divisions of BMO Harris Bank N.A.). AUM includes discretionary and non-discretionary assets under management.

BMO Global Asset Management is the brand name for various affiliated entities of BMO Financial Group that provide trust, custody, securities lending, investment management, and retirement plan services. Certain of the products and services offered under the brand name BMO Global Asset Management are designed specifically for various categories of investors in a number of different countries and regions. Products and services are only offered to such investors in those countries and regions in accordance with applicable laws and regulations. BMO Financial Group is a service mark of Bank of Montreal (BMO). The organizational diagram is for illustrative purposes only and (1) is only a representation of the capabilities and strategies of BMO Global Asset Management and (2) does not reflect actual legal entities or entity ownership.

Investment products are: Not FDIC Insured – No Bank Guarantee – May Lose Value.



# Pyrford's Organisational Overview

- Established 1987
- Stable professional staff
- 10 investment professionals
- 115 clients (US\$9.34 billion as at 31 August 2013)

### **Investment Strategy Committee**

Name	Role	Years with Pyrford	Years in Industry
Bruce Campbell	Investment Chairman	26	43
Tony Cousins, CFA	Chief Executive & Chief Investment Officer	25	28
Paul Simons, CFA	Head of Portfolio Management – Asia-Pacific	17	17
Daniel McDonagh, CFA	Head of Portfolio Management - Europe	16	16
Suhail Arain, CFA	Head of Portfolio Management – North America	5	16

### **Ownership Structure**



International Equity	31 March 2000 – 30 June 2013 (quarterly data)		
Protect the Downside – Enjoy the Upside	Downside Capture 62.57%		
Growth of a Unit Value (US\$) March 2000 – August 2013. Bull & Bear Markets	Upside Capture 89.54%		



Mar-2000 Mar-2001 Mar-2002 Mar-2003 Mar-2004 Mar-2005 Mar-2006 Mar-2007 Mar-2008 Mar-2009 Mar-2010 Mar-2011 Mar-2012 Mar-2013

Performance relates to the gross of fees Pyrford International Ltd 'International Equity (Base Currency US\$) composite'. This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document. Past performance does not guarantee future results.

# Pyrford's Investment Philosophy

- Five year time horizon
- Total return approach ⇒ Dividend Yield + 5 year Earnings Growth forecast
  - Applies to country and stock analysis
- "Absolute" not "relative" risk possible zero weight in any country, sector or stock
  - Key to controlling risk
  - "We won't invest in a company or country simply because it's big!"
- Not index oriented
- Low absolute volatility
- Low portfolio turnover



# Country Analysis

- We embrace macro-economic analysis to assist in portfolio allocation
- Total return forecast by country on a five year view
  - A combination of top-down and bottom-up analysis
- Avoid markets representing poor value
  - e.g. Japan in the 1990s
- Coverage of 27 countries, including 5 not included in the MSCI 'EAFE' Index
- Contributes significant percentage of long-term alpha





# Responsibilities of Pyrford's Investment Professionals

Bruce Campbell	Investment Strategy	Chairman of Investment Strategy Committee
Tony Cousins	Investment Strategy	Chairman of Global Stock Selection Committee
Asian Department		
Paul Simons	<b>Head of Asia</b> Discretion: Analysis:	Australia; New Zealand; Korea; Thailand; Malaysia; Hong Kong; India, Philippines, China; Singapore; Indonesia Japan; Taiwan
Jun Yu	Discretion: Analysis:	Taiwan Hong Kong; China
Stefan Bain	Discretion: Analysis:	Japan Korea; Philippines
European Department		
Daniel McDonagh	Head of Europe Discretion: Analysis:	UK; Switzerland Eurozone; Scandinavia; Israel; Turkey
Peter Moran	Discretion: Analysis:	Eurozone (Netherlands; Spain; Belgium; Portugal; Finland; Ireland; Greece); Sweden; Norway; Israel; Turkey
Nabil Irfan	Discretion: Analysis:	Eurozone (Germany; France; Italy; Austria); Denmark
North American Department		
Suhail Arain	<b>Head of North America</b> Discretion: Analysis:	USA; Canada
Andrew Sykes	Discretion: Analysis:	USA; Canada

Discretion: authority to make investment decisions subject to CIO veto.

Analysis: authority to make investment recommendations subject to veto by investment professional with discretion or CIO.

# Selecting the Stocks for your Portfolio

- Screening Which companies should be researched in depth?
  - Eliminate small companies and highly leveraged companies
  - Rank universe on basis of selected fundamentals (utilising a combination of dividend yield, return on equity and price/earnings ratio)
- Stock sheets Scrutiny of the past assists in evaluating the future
  - In-house, from original sources
  - Discipline across the regions
  - Helps determine long-term sustainable growth rates:
    - Disaggregation of return on equity Du Pont analysis
    - Quality of earnings and balance sheet
- 5 year earnings per share forecasts
- Company interviews Every company, every year
  - Must visit company prior to purchase and annually thereafter around 430 meetings per year
  - Examine the business model and long-term strategy
  - Focus on visibility of earnings and sustainability of return on equity
- Peer review All buy and sell ideas are scrutinised by entire investment team

# Portfolio Construction

- Portfolio of 60 90 stocks
- Country allocation determined by Investment Strategy Committee, comprising Bruce Campbell, Tony Cousins, Paul Simons, Suhail Arain and Daniel McDonagh
  - min. country weight 0%, max. country weight is driven by size and volatility of each market
- Stock selection by country
  - Country portfolio manager determines stock selection
  - New sales and purchases presented to full global investment team
  - New positions tend to be small
  - Every stock rated buy or sell
- All client portfolios identical (subject to specific investment restrictions)
- Quarterly rebalancing back to model weightings
- Overall "check" by CIO





## Sell Decisions

- Competition of ideas we need to make space for a stock with better valuation fundamentals.
- Valuation a good stock has become too expensive.
- A material change in our assessment of the company's fundamentals.
- An overall change to portfolio positioning reduce country weight.



## International Equity - Portfolio Characteristics

As at 31 August 2013

	Pyrford	MSCI EAFE
Dividend Yield %	3.61	3.17
Debt to Equity	70.49	114.55
Return on Equity (1 Yr Av %)	19.88	14.61
Source: Style Research		

Based on equity holdings of a representative account. This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document. Past performance does not guarantee future results.

Pyrford International BMO (2) Global Asset Management



# International Equity Model Portfolio - % Allocations

### As at 31 August 2013

EUROPEAN EQUITIES	
EURO AREA	26.00
ADIDAS AG (Germany)	1.049
AIR LIQUIDE SA (France)	1.82
BELGACOM SA (Belgium)	1.049
BRENNTAG AG (Germany)	0.789
COLRUYT SA (Belgium)	1.569
CRH PLC (Ireland)	1.049
DEUTSCHE POST AG (Germany)	1.049
FUCHS PETROLUB AG (Germany)	1.049
KONE (Finland)	1.049
LEGRAND SA (France)	1.309
REED ELSEVIER NV (The Netherlands)	1.569
ROYAL DUTCH SHELL PLC 'A' (The Netherlands)	2.08
RUBIS (France)	0.78
SANOFI (France)	1.82
SAP AG (Germany)	1.569
SYMRISE AG (Germany)	0.789
TOTAL SA (France)	2.089
UNILEVER NV (The Netherlands)	1.309
VOPAK (The Netherlands)	1.569
WINCOR NIXDORF AG (Germany)	0.789
SWITZERLAND	13.00
GIVAUDAN	0.65
NESTLE SA	3.259
NOVARTIS AG	2.679
PANALPINAWELTTRANSPORT	0.789
ROCHE HOLDING AG	2.99
SCHINDLER HOLDING	0.65
SYNGENTAAG	0.65
ZURICH INSURANCE GROUP AG	1.379

EUROPEAN EQUITIES	
SWEDEN	3.50%
ASSA ABLOY AB	1.40%
AT LAS COPCO AB	1.40%
SWEDISH MATCH AB	0.70%
NORWAY	1.00%
TELENOR ASA	1.00%
UK EQUITIES	
UK	14.50%
BP PLC	1.16%
BRITISH AMERICAN TOBACCO PLC	1.16%
BRITISH SKY BROADCASTING GROUP	1.09%
GLAXOSMIT HKLINE PLC	1.52%
LEGAL & GENERAL GROUP PLC	1.31%
NATIONAL GRID PLC	1.16%
ROYAL DUT CH SHELL PLC 'B'	1.60%
SSE PLC	1.16%
TESCO PLC	1.16%
UNITED UTILITIES GROUP PLC	1.16%
VODAFONE GROUP PLC	2.03%
ISRAEL	1.50%
BEZEQ THE ISRAELI TELECOM CO	0.45%
TEVA PHARMACEUT ICAL IND LTD	1.05%

ASIA-PACIFIC EQUITIES	
AUSTRALIA	10.50%
BRAMBLES LTD	1.84%
COMPUTERSHARE LTD	1.63%
NEWCREST MINING LTD	1.26%
QBE INSURANCE GROUP LTD	1.10%
RIO TINTO LTD	0.86%
TELSTRA CORP LTD	0.53%
WOODSIDE PETROLEUM LTD	1.73%
WOOLWORTHSLTD	1.55%
HONG KONG	8.00%
ASM PACIFIC TECHNOLOGY	1.64%
CHINA MOBILE LTD	1.56%
CNOOC LTD	1.84%
POWER ASSETS HOLDINGS LTD	1.56%
VTECH HOLDINGS LTD	1.40%
JAPAN	9.00%
KDDI CORP	1.62%
MAKITACORP	1.17%
MITSUBISHI ELECTRIC CORP	1.62%
NIHON KOHDEN	1.26%
SUMITOMO RUBBER INDUSTRIES	1.80%
TOYOTATSUSHO CORP	1.53%

ASIA-PACIFIC EQUITIES	
MALAYSIA	5.00%
AXIAT A GROUP BHD	2.00%
LAFARGE MALAYAN CEMENT BHD	0.50%
MALAYAN BANKING BHD	2.00%
MULTI-PURPOSE HOLDINGS BHD	0.50%
SINGAPORE	5.00%
COMFORT DELGRO CORP LT D	1.25%
SEMBCORP INDUST RIES LT D	0.90%
SINGAPORE TECH ENGINEERING	0.75%
UNITED OVERSEAS BANK LTD	1.25%
VENTURE CORP LTD	0.85%
TAIWAN	3.00%
ADVANTECH CO LT D	0.90%
CHUNGHWATELECOM CO LTD	1.05%
MEDIATEK INC	1.05%

This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document.



# International Equity Model Portfolio – Sector Allocations

## As at 31 August 2013

INDUSTRY GROUP	PYRFORI WEIGHT	D MODEL TING (%)	MSCI WEIGH1	EAFE TING (%)
ENERGY	10.5%		7.1%	
ENERGY		10.5%		7.1%
MATERIALS	8.6%		8.1%	
MATERIALS		8.6%		8.1%
INDUSTRIALS	19.0%		13.0%	
CAPITAL GOODS		12.5%		9.2%
COMMERCIAL & PROFESSIONAL SERVICES		1.8%		1.2%
TRANSPORTATION		4.6%		2.5%
CONSUMER DISCRETIONARY	6.0%		11.7%	
AUTOMOBILES & COMPONENTS		1.8%		5.1%
CONSUMER DURABLES & APPAREL		1.0%		2.5%
CONSUMER SERVICES		0.5%		1.3%
MEDIA		2.6%		1.4%
RETAILING		0.0%		1.4%
CONSUMER STAPLES	10.7%		11.4%	
FOOD & STAPLES RETAILING		4.3%		2.1%
FOOD BEVERAGE & TOBACCO		6.4%		7.9%
HOUSEHOLD & PERSONAL PRODUCTS		0.0%		1.4%
HEALTH CARE	11.3%		10.2%	
HEALTH CARE EQUIPMENT & SERVICES		1.3%		1.1%
PHARMACEUTICALS BIOTECHNOLOGY & LIFE SCIENCE		10.0%		9.1%
FINANCIALS	7.0%		25.0%	
BANKS		3.3%		12.9%
DIVERSIFIED FINANCIALS		0.0%		3.5%
INSURANCE		3.8%		5.0%
REAL ESTATE		0.0%		3.6%
INFORMATION TECHNOLOGY	9.8%		4.2%	
SOFT WARE & SERVICES		3.2%		1.4%
SEMICONDUCTORS & SEMICONDUCTOR EQUIPMENT		2.7%		0.7%
<b>TECHNOLOGY HARDWARE &amp; EQUIPMENT</b>		3.9%		2.1%
TELECOMMUNICATION SERVICES	11.3%		5.8%	
TELECOMMUNICATION SERVICES		11.3%		5.8%
UTILITIES	5.8%		3.7%	
UTILITIES		5.8%		3.7%

This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document.



# International Equity (US\$) - Performance

Annualised Returns – Gross of Fees (%) to 31 August 2013



\* Not annualised

The inception date above refers to the start of the index.

This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document.



# Pyrford Delivers:

- Excellent long-term performance with low absolute volatility of returns
- A focus on absolute returns benchmark agnostic
- Significant downside protection
- Disciplined, consistent approach
- Comprehensive macro and micro economic analysis
- Integrity and independence
- Committed and personal level of service



## Supplementary Information

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Pyrford's Organisation Chart

Pyrford's Professionals

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**Current Views** 

Fees

Sample Stock Sheet

Performance Disclosures



## Pyrford's Organisation Chart



# Pyrford's Professionals



Bruce Campbell B Com (Hons) Role: Investment Chairman

Years with Pyrford: 26

Years in Industry: 43

Years in

Industry:

28

Bruce has over 40 years' experience in the international investment industry. After graduating from Melbourne University in 1969 Bruce managed the investment operations of an Australian based general insurance company for 12 years and then founded the predecessor company to Pyrford in Melbourne in 1982 – at that stage as part of the multi-national Elders IXL group. In 1987 Bruce moved the investment operations to London and in 1991 headed the buy-out of the investment management subsidiary from the Elders organisation. At that time the company's name was changed to Pyrford International.

Bruce remained Chief Executive and Chief Investment Officer until 31 December 2010 at which time he took up the role of Investment Chairman.

	Tony Cousins MA (Hons),
3	Role: Chief Executive &
	Investment Officer

CFA Years with Chief Pyrford: 25

After graduating from Cambridge University in 1985 with a Bachelor of Arts, Tony joined Daiwa International Capital Management in London as an Equity Portfolio Manager. He joined Pyrford in 1989 and obtained his Master of Arts and became a CFA charter-holder in 1990.

Tony headed Pyrford's European and UK investment management activities for Pyrford for almost 20 years and was promoted to the position of Joint Chief Investment Officer in November 2009. On 1 January 2011 Tony was further promoted to the roles of Chief Executive and Chief Investment Officer.



Paul Simons MA (Hons), CFA Role: Head of Portfolio Management Asia-Pacific

Years with Years with Pyrford: Industry: 17 17

Paul joined Pyrford in 1996 after graduating from Oxford University with a degree in geography. He began his fund management career in 1997 and spent seven years covering South East Asia. Hong Kong, Taiwan, Korea and Australasia before being promoted to the role of Portfolio Manager for Australia and New Zealand in 2003. Paul became a CFA charter holder in 2000, as well being awarded his Master of Arts. Paul was appointed Head of the Asia-Pacific team and a member of the Investment Strategy Committee in 2008.



Daniel McDonagh MA (Hons), CFA	Years with	Years with
Role: Head of Portfolio Management	Pyrford:	Industry:
Europe & UK	16	16

Daniel joined Pyrford in October 1997 after graduating from Oxford University with a degree in Politics and Economics. Daniel worked as a research analyst within the European portfolio management team prior to his promotion to Portfolio Manager in 2003. He became a CFA charter holder in 2000, was appointed Head of Europe and the UK in October 2009 and was awarded his Master of Arts in 2010.



Role: Head of Portfolio Management North America

Years with Years in Industry: 16

Pyrford:

5

Suhail joined Pyrford in September 2008 as a Portfolio Manager covering North American equities. Prior to joining Pyrford, Suhail worked at Scottish Widows as a global equities portfolio manager and research analyst covering a number of sectors including the energy, telecommunication and technology sectors. He has over 10 years experience in the asset management industry with particular emphasis in US and global equities. Suhail graduated from King's College, London with a degree in Law and completed a Masters' in Finance from London Business School. He is also a gualified chartered accountant and holds the CFA designation. Suhail has also held positions at KPMG, Hambros Merchant Bank (in corporate finance), Prudential and ABP Investments.

# Pyrford's Professionals

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Nabil Irfan BSc (Hons), CFA Role: Portfolio Manager Team: Europe & UK

Years with Pyrford: 8

Years in Industry: 13

Nabil joined Pyrford in September 2005 to work as a research analyst within the European portfolio management team. In November 2009 he was promoted to the position of Portfolio Manager. Prior to joining Pyrford Nabil worked for 5 years at JPMorgan Asset Management in Equity Research as a Utilities Analyst, and prior to that as a research assistant in their technology, media and telecoms (TMT) team. Nabil graduated from University College London with an Economics degree in September 2000 and became a CFA charter holder in 2004.

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Peter Moran, MA (Hons), CFA	Years with	Years in
Role: Portfolio Manager	Pyrford:	Industry:
Team: Europe & UK	10	10

Peter joined Pyrford in October 2003 having previously worked for Culross Global Management and Merrill Lynch. In 2001 he graduated from Oxford University with a degree in History. Peter worked as a research analyst within the European portfolio management team until November 2009 at which time he was promoted to the position of Portfolio Manager. He became a CFA charter holder in 2007.

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Jun Yu BA MBA, CFA	Years with	Years in
Role: Portfolio Manager	Pyrford:	Industry:
Team: Asia-Pacific	5	13

Jun joined Pyrford in October 2008 and is a Portfolio Manager in the Asia portfolio management team with a focus on stock selection in Hong Kong and Taiwan. She has worked in a number of investment businesses in both China and London and most recently was an equity sales person for Daiwa SMBC Europe. She has a degree in Literature from Shanghai International Studies University and an MBA from INSEAD in Paris. She is a native Mandarin speaker.



Stefan Bain, MSc Role Portfolio Manager Team: Asia-Pacific

Years with

Pyrford:

1

Years in	
Industry:	
12	

Stefan joined Pyrford in June 2012 as a Portfolio Manager covering Japanese and South Korean companies within the Asian portfolio management team. Prior to joining Pyrford Stefan worked for F&C Fund Management in London for five years as a Director of Japanese Equities, and at Royal London for six years as a Japanese fund manager. Stefan has a degree in Investment Analysis from the University of Stirling and is an Associate of the Institute of Investment Management and Research.

Andrew Sykes BA (Hons), CFA	Years with	Years in
Role: Investment Analyst	Pyrford:	Industry:
Team: North America	<1	6

Andrew joined Pyrford in July 2013 as an Investment Analyst covering North America. He has 6 years' industry experience, including 3 years in portfolio management roles covering Global markets at Schroders and most recently Senhouse Capital. He graduated from Oxford University in 2005 with a BA (Hons) degree in Politics, Philosophy & Economics. Andrew is a CFA Charterholder.



Lars Nielsen, BSc MSc Role: Product Specialist	Years with Pyrford: 5	Years in Industry: 24
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Lars joined Pyrford in November 2008. He has over 20 years experience in the asset management industry. Prior to joining Pyrford, Lars worked in similar roles at Dalton Strategic Partnership, TT International and Alliance Capital. Lars started his career in various roles at Barra, one of the world's leading investment analytics companies. He spent 9 years there and his last position was as a Director for the US equity money manager business. Before going to the US he held positions in the European part of the business. Lars graduated from Aarhus Business School in his native Denmark with a MSc and BSc in Business Administration with a concentration in Finance. Also studied at Aarhus University mathematics department and San Francisco State University MBA program.



# Assets Under Management Breakdown

As at 31 August 2013

Product	USD	Number of Clients
Global Absolute Return	4.20bn	55
International Equities	3.42bn	47
Global Equities	931m	8
Asia Pacific ex-Japan Equities	725m	2
Shariah Compliant Equities	59m	3
Total	9.34bn	115




### Assets Under Management Breakdown

As at 31 August 2013





### Representative Clients

### As at 30 September 2013

Corporate	Inception
AETC Pension Scheme	2002
Canon (UK) Retirement Benefit Scheme	1994
Nissan Pension Plan	2012
PPL Services Corporation Master Trust	2012
Precision Castparts Retirement Master Trust	2000
Robert Bosch Master Retirement Trust	2011
Stagecoach Group Pension Scheme	2004
D.E UK Pension Plan	2012
VHA Inc	2010
Western Union Pension Plan	2011
Wyman-Gordon Ltd Retirement Benefits Plan	2002

Funds/Subadvisory	Inception
BMO Funds (Canada)	2008
BMO Funds (US)	2011
BMO Nesbitt Burns	2008
Kayne Anderson Rudnick Investment Management LLC	2009
MLC Investments Ltd (Australia)	2012

Foundation & Endowments; Charities	Inception
Boy Scouts of America	2003
Corporation of London Bridgehouse Estates	2004
Eton College Employees (1972) Pension & Life Assurance Scheme	2012
The Samuel Roberts Noble Foundation Inc	2005
University of Utah	2011

Trade Union & Taft Hartley	Inception
Teamsters Local 639 - Employers Pension Trust Fund	2013
UNISON Staff Pension Scheme	2013

Insurance	Inception
Amerisure Mutual Insurance Company	2003
MGM Assurance Staff Pension Plan	2011
Columbia Management	2013

Government/Public Funds	Inception
Alberta Teachers' Retirement Fund Board	1997
Audit Commission Pension Scheme	2012
The British Columbia Investment Management Corporation	1994
Bedfordshire Pension Fund	2012
Clwyd Pension Fund	2011
Corporation of London Pension Fund	2004
Highland Council	2012
Illinois Student Assistance Commission	2010
Montreal Urban Transport Scheme (MUTC)	1996
Kent County Council Superannuation Fund	2012
London Borough of Barking and Dagenham Pension Fund	2012
London Borough of Sutton Pension Fund	2012
Public Institution for Social Security Kuwait	2006
Royal Borough of Kensington & Chelsea Pension Fund	2011
Suffolk County Council Pension Fund	2012
State of Wyoming	2012

Clients that are listed were not selected by performance criteria and Pyrford has received consent to list their names in a representative client list. The listed clients do not approve or disapprove of Pyrford or its services.



### Country Allocation Does Matter

Compound Annual Returns in US\$, as at 31 August 2013. MSCI Indices (gross dividends reinvested)

	1 year	3 years	5 years	10 years
Asia Pacific ex-Japan (all countries)	7.36	6.10	5.54	12.17
Europe ex-UK	20.03	10.69	1.85	8.54
UK	13.52	11.41	3.20	7.94
Japan	24.38	7.80	1.20	4.73
EAFE	19.17	9.78	2.11	8.05

Sources: Pyrford & MSCI



## Top Down by Country

Key Variables	$\overline{)}$
Labour Force Growth	L
Productivity growth	ſ
Output gap (actual vs. trend growth)	
Savings ratio	
Private sector debt	
Real interest rates	
Net exports	
Participation rate	
	-
Profit share of GDP	
Corporate margins	5
Unemployment rate	
Capacity utilisation	J
Share issuance/buy backs	
Listed corporate sector leverage	>
Retention ratio	J

### Conclusion

Trend GDP Growth Estimate

Cyclical GDP Growth Estimate

Aggregate corporate profit growth

**EPS Growth Estimate** 



## Country 5 Year GDP Growth Forecast – UK Example

### Trend GDP Growth Estimate (real terms)

- Labour Force Growth Statistics indicate only marginal labour force growth in line with birth rate trends and the ageing demographic profile. Latest U.N. demographic projections indicate that no more than 0.2% per annum will be achieved over the next 5 years.
- Productivity Growth Total productivity growth over the last 50 years has averaged 1.9%. Given the cyclical nature of productivity growth and the negative factors impacting world and UK growth over the next 5 years it would be unrealistic to expect faster growth than the long term average of 1.5-2.0%.
- Based on the above it is likely that the UK trend growth rate for GDP will be around 2.0% per annum in real terms
- Actual GDP Growth Estimate (real terms)
  - **Output Gap** The output gap is at its largest for 40 years indicating significant spare capacity. This will assist growth in GDP above trend growth.
  - Household Debt to GDP Household debt has risen very sharply in recent years driven particularly by the wealth effect of residential house price rises, falling interest rates and the householder's propensity to consume. This ratio is currently a significant cause for concern. The necessity for the UK consumer to deleverage will act as a strong depressant on actual versus trend growth.
  - Savings Ratio The savings ratio in the UK has risen from the long term lows reached in 2007. Over the next 5 years there is a much greater likelihood of the ratio rising than falling as consumers attempt to repair their personal balance sheets. This will act as a depressant on actual versus trend growth (although recognising it as a long term positive as S=I).
  - Real Interest Rates Real interest rates are currently around zero following a spike in inflation. Nominal interest rates are unable to be cut further. Their potential influence on GDP going forward is likely to be neutral to positive.
  - Net Exports as a Percentage of GDP Net exports have contributed negatively to GDP in recent years and stand towards the lower end of their long term range relative to GDP. A cheap currency will make the UK more competitive in export markets. An incremental positive contribution from this area is therefore possible in the near term.
- There is a combination of positive and negative influences listed here. In our judgement it is likely that actual GDP will not grow any faster than the long term trend. The major influence will be ongoing deleveraging by the household sector. Thus we forecast a growth rate of approximately 2.0% per annum (real).



## Country 5 Year EPS Growth Forecast – UK Example

### Corporate Profits as a Percentage of GDP

- Corporate profit margins have proved reasonably resilient despite the recent downturn. Going forward, the tax burden is likely to increase given the fiscal challenges faced by the UK government and revenue is likely to come under pressure from a rise in the personal savings ratio. In addition, substantial deficits in defined benefit funds will require UK corporations to significantly increase pension contributions. It is therefore realistic to expect the profit share of GDP to fall over the next 5 years.
- Capacity Utilization
  - Capacity utilisation (which has a strong correlation with corporate profitability) is currently near its lowest levels for 30 years. Capacity constraints are unlikely to act as a drag on corporate profits over the next 5 years, though the extent to which this helps will be muted by the reduced size of the manufacturing sector within the UK economy.
- Unemployment
  - The unemployment rate has spiked since the credit crunch began despite increased labour flexibility and deregulation over the last twenty five years. Higher wage pressures are unlikely to be acute in this environment meaning no detrimental influence on corporate margins.
- The effects of deleveraging means that profit growth is likely to be lower than GDP growth at around 1-1.5% per annum (real).
- EPS Growth and Aggregate Profit Growth
  - With a large proportion of the corporate sector listed on the stock market, listed EPS growth has been highly correlated with economy-wide profit growth. However, as a consequence of balance sheet deleveraging (especially among the banks) and liquidity pressure caused by underfunded pension funds there is likely to be a significant level of share issuance over the next 5 years implying EPS growth somewhat below that of aggregate corporate profit growth.
- As a consequence of the above analysis we forecast real EPS growth to average 1% per annum over the next 5 years.



## Country Weights - Detail

- Assume a 6% real rate of return as a hurdle rate
- Calculate NOMINAL EXPECTED RETURN PER ANNUM FOR EACH MARKET:
- DIVIDEND YIELD + REAL EPS GROWTH PER ANNUM (Pyrford forecast) + ANNUAL INFLATION FORECAST (Pyrford forecast as part of the top-down analytical process) + PER ANNUM PRICE CHANGE REQUIRED TO REACH 6% HURDLE RATE (described above).
- = NOMINAL EXPECTED RETURN PER ANNUM
- Markets are overweighted or underweighted depending on this number.
- The market with the highest nominal expected return per annum will be the most overweight subject to the constraints imposed by Pyrford's upper limit for each market (calculated on the basis of market cap [as a proxy for liquidity] and rolling absolute volatility). The minimum weighting is zero.





- Japan has a dividend yield of 1.8% and our forecast for real EPS growth over the next 5 years is 1.5% per annum. This produces a value indicator of 3.3%.
- In order for the value indicator to reach the hurdle rate of 6%, the dividend yield in Japan needs to rise to 4.5%. This translates to a capital price fall of -60.0% which is -16.7% per annum for 5 years.
- The nominal expected return per annum for Japan is as follows:
- 1.8% dividend yield +
- 1.5% real EPS growth +
- 1.0% inflation forecast by Pyrford +
- -16.7% price change required to meet hurdle rate = -12.4%
- The ultimate weighting decision is not a mechanical exercise it is the result of a discussion in the Investment Strategy Committee taking into account all the information available including risk factors that might not be reflected in the numbers. For example, despite having an attractive nominal expected return, we decided to have a zero weight in Thailand on the grounds of excessive political risk.



### Forecast Equity Valuation Matrix

02 September 2013

Country	Dividend Yield (%)	Real Earnings per Share Growth (5 y average) (%)	Value Indicator(%)
UK	3.3	1.0	4.3
Eurozone	3.3	1.0	4.3
Switzerland	2.9	2.5	5.4
Denmark	1.8	3.5	5.3
Norway	4.4	1.0	5.4
Sweden	3.6	1.5	5.1
Israel	3.7	2.5	6.2
Japan	1.8	1.5	3.3
Australia	4.2	1.0	5.2
Hong Kong	3.0	3.0	6.0
New Zealand	4.1	0.0	4.1
Singapore	3.0	3.0	6.0
Malaysia	3.0	3.0	6.0
Thailand	3.4	3.0	6.4
Korea	1.2	1.5	2.7
Indonesia	2.8	3.0	5.8
Taiwan	2.8	2.0	4.8
USA	2.1	1.5	3.6
Canada	3.1	2.0	5.1
Sources: Pyrford International Ltd & Bloomberg			



### International Equity - Country Limits

30 June 2013 (quarterly data)

Country	Maximum allocation %
Australia	23.3
Denmark	6.1
Eurozone	48.1
Hong Kong	15.5
Indonesia	11.0
Israel	11.5
Japan	47.6
Malaysia	16.0
New Zealand	11.1
Norway	6.8
Singapore	14.2
South Korea	11.0
Sweden	10.6
Switzerland	24.1
Taiwan	11.0
Thailand	11.0
United Kingdom	41.5

Source: Pyrford



### International Equity Composite - Country Allocation

31 August 2013

	PYRFORD MODEL	MSCI EAFE	OVER / UNDERWEIGHT
EUROPE	58.0	65.0	-7.0
Euro Area	26.0	29.0	-3.0
Switzerland	13.0	9.0	4.0
UK	14.5	21.8	-7.3
Scandinavia	4.5	5.2	-0.7
ASIA-PACIFIC	40.5	34.5	6.0
Australasia	10.5	8.4	2.1
Hong Kong	8.0	3.0	5.0
Japan	9.0	21.6	-12.6
Korea	0.0	0.0	0.0
Malaysia	5.0	0.0	5.0
Singapore	5.0	1.5	3.5
Taiwan	3.0	0.0	3.0
Thailand	0.0	0.0	0.0
MIDDLE EAST	1.5	0.5	1.0
Israel	1.5	0.5	1.0
	100.0	100.0	0.0

Sources: Pyrford & MSCI





## Pyrford Screening & Stock Selection Process



# Selecting Stocks for your Portfolio

- Focus on sustainable ROE
- Appropriate accounting adjustments to raw numbers
- Du Pont analysis
  - Focus on healthy sources of profitability





### Fundamental Company Analysis

- Emphasis on company visits and management interviews
- In-depth analysis of industry competitive framework and structural corporate competitive advantage ۲
- Sustainability of ROE



BMO (A) Global Asset Management

### Sample of US Dollar/Australian Dollar Purchasing Power Parity Analysis

As at 31 August 2013 (monthly data)



Source: Thomson Datastream & Pyrford International

**Pyrford International** 

BMO (A) Global Asset Management

# International Equity (US\$) - Investment Performance

16 years 8 months to 31 August 2013

- Excellent long-term returns
- Significant downside protection
  - Over 16 years and 6 months to 30 June 2013 our client portfolios have fallen just 62c for every \$1 fall in the market
- Low absolute volatility





The inception date above refers to the start of the index Sources: Pyrford & MSCI

This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document.



### International Equity (US\$) - Performance Statistics

Over 17 years (01 July 1996 to 30 June 2013) - PSN quarterly data

	Pyrford	
Downside Capture (%)	61.54	
Upside Capture (%)	82.10	
Beta*	0.75	
R-Squared**	0.87	
Standard Deviation***	16.14	Index 20.24%
Source: PSN Enterprise		

\* A measure of the volatility of the portfolio relative to the market. A beta less than 1.0 identifies a portfolio that will move less than the market

\*\* The percentage of the portfolio's risk that is due to the market benchmark (systematic risk)

\*\*\* A statistical measure of dispersion of returns

Based on gross of fees quarterly composite returns from 01 July 1996 – 30 June 2013 against the MSCI EAFE Index.





### International Equity (US\$) - Risk/Reward

01 July 1996 to 30 June 2013 (PSN quarterly data)

**PSN** 

### TOTAL RISK REWARD INTERNATIONAL EQUITY UNIVERSE PERIOD STARTING 1 JULY 1996 TO JUNE 30, 2013



Risk Benchmark used for this analysis: MSCI EAFE Gross

Source: PSN Enterprise by Informa Investment Solutions

Based on gross of fees quarterly composite returns from the inception date of 01 July 1996 to 30 June 2013 against MSCI EAFE Index.

Please see full GIPS compliant performance disclosure at the end of this document.

### International Equity (US\$) - Rolling 5-year Absolute Volatility

As at 31 August 2013



This is supplementary information. Please see full GIPS compliant performance disclosure at the end of this document.

Please see full GIPS compliant performance disclosure at the end of this document.

Source: Pyrford International



### Attribution Detail by Asset

Annualised 5 years to 31 August 2013 (US\$)

	Portf	olio	Poli	су	Currency	I	Net Managem	ment Effects	
	Weight	Return	Weight	Return	Return	Ссу	Alloc	Select	Total
Total	100.0	6.23	100.0	2.10	(0.43)	0.61	1.02	2.51	4.13
Equity	96.1	6.45	100.0	2.10	(0.43)	0.43	1.19	2.51	4.13
Europe	56.3	4.64	65.1	1.85	(1.72)	0.43	(0.33)	1.51	1.61
Euro-zone Equities	29.3	0.33	30.3	(1.23)	(2.18)	0.05	0.06	0.31	0.42
Danish Equities			1.0	4.47	(2.19)	0.02	(0.05)	0.00	(0.03)
Norwegian Equities	1.0	9.75	0.8	(0.72)	(2.47)	0.01	0.03	0.10	0.14
Swedish Equities	1.3		2.9	9.89	(0.66)	0.02	(0.12)	0.03	(0.07)
Swiss Equities	10.8	11.88	8.2	7.78	3.33	0.12	0.03	0.40	0.55
UK Equities	13.9	7.71	21.8	3.20	(3.24)	0.23	(0.28)	0.66	0.60
Pacific Basin	38.4	9.45	34.5	2.94	2.18	(0.02)	1.70	0.98	2.66
PACIFIC BASIN EX JAPAN	28.9	10.49	12.6	6.20	0.93	0.44	1.03	0.52	1.99
Australian Equities	9.3	5.72	8.2	5.68	0.67	0.15	0.02	(0.21)	(0.04)
Hong Kong Equities	7.1	8.60	2.7	7.70	0.13	0.09	0.16	0.11	0.37
Malaysian Equities	3.8	21.39	0.0	13.17	0.65	0.03	0.43	0.31	0.77
New Zealand Equities			0.1	8.96	1.92	0.00	(0.01)	0.00	(0.01)
Singapore Equities	4.4	10.99	1.6	6.29	2.07	0.07	0.06	0.20	0.34
Taiwan Equities	3.3	15.17	0.0	5.62	1.06	0.03	0.21	0.17	0.40
Thai Equities	1.0		0.0	15.35	1.24	0.07	0.15	(0.07)	0.15
Japanese Equities	9.5	5.77	21.9	1.20	2.04	(0.46)	0.68	0.46	0.67
Israeli Equities	1.3	-	0.4		0.00	0.02	(0.16)	0.03	(0.12)
Cash & Currency Hedging	3.9					0.18	(0.17)	0.00	0.00

Policy benchmark MSCI EAFE

### **Current Views**

- The eurozone is dysfunctional. Break-up, in some form, is desirable and probably inevitable.
- Central Bank 'printing' has propped markets.
- It will end.
- Despite the 'prop' provided by Central Banks, growth has been poor since the end of the recession.
- Deleveraging will continue in most developed markets.
- Global consumption growth is weak.
- Banks need more capital.
- Demographics provides a long-term headwind.
- Productivity growth is weak.
- Chinese growth is 2-3% (per annum) below the average of the last 10 years. Rebalancing towards consumption is required.
- The Chinese currency is overvalued.
- Bond yields, which have begun to 'normalise', remain too low.
- Investment returns over the next 50 years will not match those of the last 50.
- Emerging Asia provides the most attractive long-term opportunities, but volatility will provide investment challenges.





### Client Service Team



Dave Majewski Head of Client Service T: 312 461 5656 E: david.majewski@BMO.com

Dave's responsibilities include managing the client service effort in the U.S., supporting and managing client relationships, and managing the BMO Global Asset Management U.S. sales and service support team.

Dave began his financial services experience in 1984 and joined BMO Asset Management U.S. in mid-2011. Prior to joining BMO Asset Management U.S., he managed Russell Investments' Midwest Institutional client service team, providing support to corporate and public pensions, endowments and foundations representing over \$15 billion in assets. Prior to Russell, Dave managed global pension investments and served in various domestic and international treasury roles with Hewlett Packard/Compaq. He started his career serving in several accounting and treasury roles with Electronic Data Systems.

He holds an MBA in International Business from Kingston University in London and a BS in Finance from the University of Wisconsin – Eau Claire.



Kevin Gergits Relationship Management T: 312 461 6250 E: kevin.gergits@BMO.com

Kevin is a key advisor to the firms' clients, managing and expanding relationships across all asset classes. He joined BMO Asset Management U.S. in 2007 and began his investment experience in 1998.

Prior to joining the firm, he was a Director in the Institutional Asset Management division of UBS (formerly Brinson Partners) and served as a key liaison for institutional clients and related business groups. His responsibilities included relationship management to existing clients and developing new business opportunities.

He holds an MBA in Finance from DePaul University and a BS in Finance from Eastern Illinois University.



### Fees

<b>Pyrford International Equity Trust</b> * A commingled fund which is suitable for US based unit holders										
Size	Management Fee**									
0 - US\$5 m	1.00%									
US\$5m – US\$20m	0.95%									
US\$20m – US\$100m	0.70%									
Thereafter	0.50%									
*Minimum account size: US\$1 million **Includes Custody Fees (State Street)										

Separate Accounts*									
Size	Management Fee**								
0 - US\$50 m	0.70%								
US\$50m – US\$100m	0.50%								
Thereafter	0.35%								
*Minimum account size: US\$50 million **The above fees do not include custody charges which are payable by the client to the appointed custodian									



BMO 🙆 A part of BMO Financial Group

Colruyt 19-Apr-13																		
VALUE INDICATOR			STOCK INFORM	IATION			Description (	of Operations		5 YEAR EPS	GROWTH FOR	ECAST						
FORECAST EPS GROWTH RATE	5.8%	_	MSCI Industry	Classification Bloomberg	Food & Staples	Retailing	Colruyt operates Several brands Coccinelle, Okay,	supermarkets are used includ UGA, and Codi	in Belgium. ling Colruyt,	NOW	Shareholder s Funds	ROE	Net Profit	Retention Ratio	Retained Profit			
CURRENT DIVIDEND YIELD :	2.5%	Т		SEDOL	5806225	BE				YEAR 1 YEAR 2	1,584.8 1,794.0	22.0% 21.0%	348.7 376.7	60.0% 60.0%	209.2 226.0			
			Share price on 19/04/2013		36.79					YEAR 3 YEAR 4	2,020.0 2,262.4	20.0% 19.1%	404.0 432.1	60.0% 60.0%	242.4 259.3			
LONG TERM VALUE :	8.3%		Market	Market Capitalisation 5,790						<b>YEAR 5</b> 5 YE	AR COMPOUND	EPS GROWTI	455.4 60.0% 273.3 We have made an extremel conservative assumption th					
										Termina	year ROE assu	mptions	•		retur	n on equity fails significantly with eworst levels recorded		
CONCLUSION											Sales/Assets	215.0%			Delo			
											Net Profit/Sales	4.2%		- (iii ii				
											Assets/Equity	200.0%		/ We fo	recast return o	n equity for each company in		
CORPORATE GOVERNANCE														year analv	sis to disagare	gate the components of ROE.		
Auditors Current K	PMG		Directors To	tal Number	8		Officers			In post since	With Co since	Born	-	We	must justify the	ese forecasts (see page 3).		
Audit Fees	0.9		Of which in	dependent	6	-	Chairman	Jef Colruyt		1994	1986	1958		A11	ouractimator	re placed in vellow boxcc		
Non-audit Fees	10+					Gei	neral Manager	Luc Rog	ge	2005	2005		-		our esumates a	ne placed in yellow boxes.		
Length of service	10+							WITT DIESE	naris	2005	2000		1					
FINANCIAL STATEMENT DATA		Year Ending	March 31st															
Turnover €m Cost of Goods Sold Operating Expenses EBITDA Depreciation EBIT (unadjusted) Interest Expense/(Income) Associates & Other Income	<b>3,066.8</b> 2,302.6 529.6 234.6 69.9 <b>164.7</b> (7.3)	3,308.3 2,449.6 580.6 278.1 74.6 203.6 (6.3) 0.0	<b>4,076.4</b> 3,027.3 659.3 389.9 76.8 <b>313.1</b> (5.2) 0.0	<b>4,437.8</b> 3,373.1 693.0 371.7 72.2 <b>299.5</b> (7.0) 0.3	4,775.7 3,651.2 712.4 412.1 79.7 332.4 (7.7) 0.6	5,208.6 3,910.3 832.6 465.7 94.3 371.4 (11.8) 0.4	<b>5,673.8</b> 4,297.8 872.0 504.0 102.3 <b>401.7</b> (14.1)	6,309.6 4,762.8 997.7 549.1 117.2 431.9 (3.4) (2.3)	6,752.6 5,061.9 1,090.8 599.9 130.0 469.9 (6.0)	<b>7,280.1</b> 5,447.5 1,211.4 621.2 149.0 <b>472.2</b> (0.2) 5 2	7,847.6 - 5,839.0 1,327.2 681.4 196.2 485.2 (3.0) 0,7		Colruy grown The co the ma	t has achieved i i its market shar ompany has bee rket leader, whi and	015 2016 2017   ved impressive sales growth historically and has share of Belgian food retail from 7.7% in 1992 to ~27% in 2012. 1992 to ~27% in 2012.   s been able to take market share from Carrefour, which is structurally challenged by higher costr and a unionized labour force. 1992 to			
Extraordinary charges/(gains) Pretax Income Tax & Minorities Net Profit (adjusted) Net Profit (reported)	(12.3) 172.0 58.7 <b>113.3</b> 124.0	2.0 209.8 73.3 <b>136.5</b> 134.4	(79.5) 318.3 101.5 <b>216.8</b> 296.2	(18.4) 306.8 95.9 <b>210.9</b> 229.3	0.0 340.7 110.3 <b>230.4</b> 230.4	0.4 0.0 383.6 121.1 <b>262.5</b> 262.6	0.0 417.0 128.7 <b>288.3</b> 288.2	0.0 433.0 126.9 <b>306.1</b> 306.0	0.0 475.2 145.7 <b>329.5</b> 329.6	0.0 477.6 139.6 <b>338.0</b> 338.0	0.0 - 488.9 145.9 <b>343.0</b> 342.9			The comp extraordinary ite g	any produces c ems. They have ains from sellin	lean accounts with few only made a few exceptional g land assets.		
Cash Inventories Receivables Current Assets Fixed Assets Total Assets Total Assets Total Assets adjusted for goodwill	301.9 265.4 130.6 826.9 419.9 1,246.8 <b>1,246.8</b>	386.8 278.1 114.0 921.2 455.7 1,376.9 <b>1,376.9</b>	354.9 362.8 170.4 977.2 553.4 1,530.6 <b>1,530.6</b>	366.0 344.3 149.5 925.5 715.9 1,641.4 <b>1,641.4</b>	331.3 361.2 175.2 931.2 785.2 1,716.4 <b>1,716.4</b>	414.9 384.6 206.3 1,076.5 884.5 1,961.0 <b>1,961.0</b>	296.6 438.0 288.4 1,111.5 1,073.2 2,184.7 <b>2,184.7</b>	292.9 472.3 314.8 1,169.1 1,193.0 2,362.1 <b>2,362.1</b>	247.9 495.4 363.3 1,172.5 1,459.9 2,632.4 <b>2,632.4</b>	287.9 538.2 442.0 1,332.5 1,684.8 3,017.3 <b>3,017.3</b>	308.3 565.6 443.3 1,378.0 1,789.0 3,167.0 <b>3,167.0</b>							
Debt due within one year Payables Current liabilities Long term debt Net debt repayments/(issuance) Shareholders' Funds Shareholders' Funds (adjusted)	17.9 395.7 665.6 28.6 17.5 460.8 <b>460.8</b>	3.3 410.0 711.0 26.2 16.9 544.8 <b>544.8</b>	3.7 498.1 908.7 22.1 12.0 520.8 <b>520.8</b>	4.0 511.9 791.3 15.6 2.2 763.2 <b>763.2</b>	3.3 573.9 853.6 13.4 2.0 771.3 <b>771.3</b>	2.4 649.5 937.7 12.0 1.6 919.3 <b>919.3</b>	2.8 754.9 1,090.6 18.5 2.7 971.1 <b>971.1</b>	3.6 768.5 1,136.4 19.0 1.6 1,098.8 <b>1,098.8</b>	6.5 834.2 1,240.6 17.8 2.0 1,251.8 <b>1,251.8</b>	6.4 918.0 1,376.4 16.7 8.9 1,475.2 <b>1,475.2</b>	5.0 889.2 1,392.1 29.2 1.2 1,584.8 <b>1,584.8</b>			Colruyt has very company is fina	little debt. The ncially secure.			
Pension Fund Surplus/Deficit Net Capex	98.0	117.1	127.1	171.1	150.5	195.2	238.3	239.5	346.7	324.3	287.8							
Shares outstanding (m) EPS (reported) EPS (adjusted) DPS Share Price	180.3 0.69 0.63 0.19 9.48	176.4 0.76 0.77 0.24 11.08	175.7 1.69 1.23 0.40 18.08	171.9 1.33 1.23 0.49 23.96	167.9 1.37 1.37 0.55 24.72	165.4 1.59 <b>1.59</b> <b>0.65</b> <b>34.26</b>	162.5 1.77 1.77 0.74 32.60	160.2 1.91 1.91 0.81 34.54	157.7 2.09 <b>2.09</b> 0.90 36.45	158.0 2.14 <b>2.14</b> 0.92 37.16	157.4 2.18 <b>2.18</b> 0.95 30.14							
			PREPARED BY:	PYRFORD II	NTERNATIONAL	LTD, 79 Gros	venor Street, Lond	lon. W1K 3JU. U	K. Telephoi	ne +44 20 7495	4641 Fax +44 2	0 7399 2204			Pyrf	ord International		

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Colruyt													19-Apr-13				
RATIO ANALYSIS																	
VALUATION .	DE sotte	2002	2003	2004	2005	2006	2007	2008	2009	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	<u>2014</u>	2015	<u>2016</u>	2017
VALUATION :	PE ratio Price to Book Value	3.7	3.6	6.1	5.4	5.4	6.2	5.5	5.0	4.6	4.0	3.0					
	Dividend Yield	2.0%	2.2%	2.2%	2.0%	2.2%	1.9%	2.3%	2.3%	2.5%	2.5%	3.2%					
LEVERAGE :	Long term Debt/Equity	6.2%	4.8%	4.2%	2.0%	1.7%	1.3%	1.9%	1.7%	1.4%	1.1%	1.8%					
	Total Debt/Total Assets	3.7%	2.1%	1.7%	1.2%	1.0%	0.7%	1.0%	1.0%	0.9%	0.8%	1.1%					
Contin	Net Debt/Net Debt + Equity	-124.5%	-190.6%	-171.7%	-83.1%	-68.9%	-77.2%	-39.6%	-32.6%	-21.7%	-21.9%	-20.9%					
Pensie	on Fund Deficit as a % of Equity																
LIQUIDITY :	Quick Ratio	0.8	0.9	07	07	07	07	0.6	0.6	0.5	0.6	0.6		Colru	yt focuses r	elentlessly on red	ucing its cost base to
COVERAGE :	Cash Flow Interest Cover	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		improv	e margins. Th	ne company achie	ves the highest EBITDA
MARGINS	FBITDA	7.6%	8.4%	9.6%	8.4%	8.6%	8.9%	8.9%	8.7%	8.9%	8.5%	87%-			argins with		ou retail industry.
	Operating	5.4%	6.2%	7.7%	6.7%	7.0%	7.1%	7.1%	6.8%	7.0%	6.5%	6.2%					
	Pretax	5.6%	6.3%	7.8%	6.9%	7.1%	7.4%	7.3%	6.9%	7.0%	6.6%	6.2%					
	Net	3.7%	4.1%	5.3%	4.8%	4.8%	5.0%	5.1%	4.9%	4.9%	4.6%	4.4%		Colru	lyt managem	ent have delivere	d excellent returns to
GROWTH :	Payout Ratio	30.2%	31.0%	32.4%	39.8%	40.2%	40.8%	41.5%	42.3%	43.1%	43.0%	43.6%		shareho	Iders, growin	ng the dividend at	a compound rate of 16%
	DPS Growth Rate		26.3%	66. <b>7</b> %	22.0%	13.1%	17.4%	13.6%	9.8%	9.3% 11.4%	2.4%	3.3% -				31106 2002.	)
DU PONT ANALYSIS																	
IMPLIED TOTAL RETURN	Dividend Yield	2.0%	2.2%	2.2%	2.0%	2.2%	1.9%	2.3%	2.3%	2.5%	2.5%	3.2%					
	Implied Growth Rate	17.2%	17.3%	28.1%	16.6%	17.9%	16.9%	17.4%	16.1%	15.0%	13.1%	12.2%					
	Implied Total Return	19.2%	19.5%	30.3%	18.7%	20.1%	18.8%	19.6%	18.4%	17.5%	15.5%	15.4%					
GROWTH RATE COMPONE	ENTS : Retention Rate	69.8%	69.0%	67.6%	60.2%	59.8%	59.2%	58.5%	57.7%	56.9%	57.0%	56.4%		Return on equi	t <u>y (ROE)</u> is th	e main focus of o	ur analysis. We look for
	5yr average Retention Rate	24.6%	25.49/	44 69/	27 69/	65.27%	63.15%	61.06%	59.08%	58.42%	57.86%	57.31%		sustaina	ıbly high or iı	ncreasing levels a	chieved through:
	5vr average ROE	24.0%	23.170	41.0%	21.076	29.76%	30.55%	31.48%	28,72%	28.46%	27.07%	25.68%					
	Return on Assets	9.1%	9.9%	14.2%	12.8%	13.4%	13.4%	13.2%	13.0%	12.5%	11.2%	10.8%					
	5yr average ROA					11.89%	12.75%	13.40%	13.16%	13.10%	12.65%	12.14%			High or	increasing asset f	turnover; or-
RETURN ON EQUITY COMP	PONENTS : Sales/Assets	245.97%	240.28%	266.34%	270.37%	278.24%	265.61%	259.71%	267.12%	256.52%	241.28%	247.79%					
	Net Profit/Sales	3.69% 270.58%	4.13% 252.72%	5.32% 293.91%	4.75% 215.07%	4.82%	5.04% 213 31%	5.08%	4.85% 214.97%	4.88%	4.64%	4.37% =		Rising r	net profit mai	gins, preferably f	rom economies of scale
ROF change breakdown	Contribution from	210.00%	202.12.10	200.0170	210.0170	222.0070	210.0170	224.0170	214.0170	210.2070	204.0070	100.04%				or cost cutting	•
Roe onunge breukdown	Asset Turnover		-0.58%	3.40%	0.52%	0.82%	-1.36%	-0.65%	0.81%	-1.10%	-1.51%	0.59%					
	Margins		2.75%	8.28%	-3.86%	0.43%	1.28%	0.24%	-1.33%	0.16%	-1.22%	-1.34%					
	Margin(EBIT)		3.39%	7.24%	-4.44%	0.89%	0.71%	-0.21%	-0.97%	0.45%	-1.73%	-1.07%					
	Tax		-0.31%	1.50%	0.32%	-0.47%	0.22%	0.30%	0.64%	-0.52%	0.50%	-0.19%					
	Leverage		-1.70%	4.90%	-10.66%	0.98%	-1.24%	1.55%	-1.31%	-0.60%	-0.68%	-0.52%					
	CHECK Leverage		-1.70%	4.96%	-10.65%	0.98%	-1.24%	1.55%	-1.31%	-0.60%	-0.68%	-0.52%					
	Absolute change in ROF		0.47%	76.64% 16.57%	-73.99% -14.00%	2.24%	-7.32% -1.32%	7.73% 1.13%	-7.83% -1.83%	-7.54% -1.54%	-3.41%	-1.2/%					
MARGIN COMPONENTS	FRIT/Sales	5 37%	6 15%	7 68%	6 75%	6.96%	7 13%	7 08%	6.85%	6.96%	6 4 9%	6 18%	ſ	We examine the c	omponents o	of the net margin i	n greater detail to better has a stable tax charge
	Interest Expense/EBIT	-4.44%	-3.07%	-1.65%	-2.34%	-2.32%	-3.18%	-3.51%	-0.79%	-1.28%	-0.04%	-0.62%-		and has driven	net profit ma	rgins higher prim	arily by improving the
	(Tax+Minorities)/Pretax Profit	34.11%	34.92%	31.89%	31.26%	32.37%	31.57%	30.86%	29.31%	30.66%	29.23%	29.84%					
SECTOR BREAKDOWN																	
	2011	201:	2	2013	On Manufa	201	4	20	15 On Marsia	201	6	201	7 On Marri	2018	Maria		
Rat	sales Up. Margin all 5.614 7.8%	5 997	Op. Margin 7.8%	Sales	Up. Margin	Sales	Op. Margin	Sales	Up. Margin	Sales	Op. Margin	Sales	Op. Margin	Sales C	p. Margin		
Wholesa	ale 1,263 1.6%	1,291	1.7%														
Other (mainly gas station	is) 548 1.2%	686	1.6%														
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Colruyt											P	9-Apr-13					
QUALITY OF EARNINGS																	
		2002	2003	2004	2005	2006	2007	2008	2009	<u>2010</u>	<u>2011</u>	2012	<u>2013</u>	2014	<u>2015</u>	<u>2016</u>	201
FREE CASH FLOW:	Net Income (adjusted) Depreciation (Decrease) in Working Capital	113.3 69.9	136.5 74.6 (18.3)	216.8 76.8 53.0	210.9 72.2 (53.2)	230.4 79.7 (19.4)	262.5 94.3 (21.1)	288.3 102.3 30.1	306.1 117.2 47.1	329.5 130.0 5.9	338.0 149.0 37.7	343.0 196.2 57.5					
Cash Conversion o	Cash Flow from Operations Capital expenditure Free Cash Flow of Earnings (FCF / Net income)	98.0 85.1 75.1%	229.4 117.1 <b>112.3</b> 82.2%	240.6 127.1 113.5 52.3%	336.3 171.1 <b>165.2</b> 78.3%	329.5 150.5 <b>179.0</b> 77.7%	195.2 182.7 69.6%	238.3 122.2 42.4%	376.2 239.5 <b>136.7</b> 44.7%	453.6 346.7 <b>106.9</b> 32.4%	449.3 324.3 <b>125.0</b> 37.0%	481.7 287.8 193.9 56.5%					
	Dividends Paid Share buybacks/(issuance) Net Debt Repayments	33.7 (10.4) 17.5	34.8 (4.6) 16.9	137.1 12.0	83.9 33.8 2.2	84.9 148.4 2.0	94.3 27.8 1.6	107.2 137.4 2.7	121.8 77.5 1.6	130.3 60.3 2.0	145.4 (16.9) 8.9	148.2 57.4 1.2					
Cash Flov	67.7 59.7%	95.3 69.8%	101.5 46.8%	163.0 77.3%	177.0 76.8%	181.1 69.0%	119.5 41.4%	135.1 44.1%	104.9 31.8%	116.1 34.3%	192.7 56.2%		Cash Flow pos well the con	ash Flow post financing gives an indication well the company converts earnings into c			
	Capex/Depreciation Capex/Sales Receivables/Sales Inventory/Sales	140.3% 3.2% 4.3% 8.7%	157.1% 3.5% 3.4% 8.4%	165.6% 3.1% 4.2% 8.9%	237.0% 3.9% 3.4% 7.8%	188.8% 3.2% 3.7% 7.6%	207.0% 3.7% 4.0% 7.4%	232.9% 4.2% 5.1% 7.7%	204.4% 3.8% 5.0% 7.5%	266.7% 5.1% 5.4% 7.3%	217.7% 4.5% 6.1% 7.4%	146.7% 3.7% 5.6% 7.2%					
ENSION ASSUMPTIONS																	
Nominal Expected Re	eturn on Equities Assumption Discount Rate % of fund in equities																
NOTES AND CHANGES IN	ACCOUNTING POLICIES																
Extraordinary items	Gain in 2004 from disposal of assets.																
2009/10 accounting change	Supplier contributions, related to discour Goods Sold*. Discounts granted to custo margin.	nts given by Colnuyf to its cu	tomers, are rec duction from "Re	ognized in dedu	ction from "Costs	; of ross											
TERMINAL ROE ASSUMPT	TIONS																
Net Profit/Sales Sales/Assets Assets/Equity	Conservative assumption that net profit n Asset turnover falls far below the worst le No increase in leverage reflecting contin	nargins fall over the next 5 y evel achieved in the last 11 y ued prudence by a conser	ears. ears despite ec rative managem	onomies of scale ent team.	e in Colruyt's bus	iness model.											
		PREPAR	ED BY: PYRFC	RD INTERNATI	ONAL LTD, 79 G	Grosvenor Stree - I	t, London. W1K INTERNAL -	3JU. U.K. Telej	phone +44 20 7	495 4641 Fax +	44 20 7399 220	04			Ругfого вмо 😩 с	l Internati	onal



### International Equity Composite US\$ - Disclosures

	Gross	Benchmark	Composite	Benchmark 3-	Number of	Composite	Total Firm Assets		Returns %					
Calendar Year	Composite Return for the Period %	MSCI EAFE Return %	3-Yr Ann. Std Dev (%)	Yr Ann. Std Dev (%)	Accounts at Assets at period period end end (US\$ m)		at period end (US\$ m)	% of Total Firm Assets	Dispersion (Range) (%)	High	Low	Median		
1996 H2	9.8	1.6	-	-	1	71	868	8.2	-	-	-	-		
1997	0.8	2.1	-	-	1	71	1,162	6.1	-	-	-	-		
1998	15.2	20.3	-	-	1	82	1,143	7.2	-	-	-	-		
1999	14.2	27.2	13.1	15.9	1	151	1,229	12.3	-	-	-	-		
2000	3.7	(14.0)	12.9	15.7	1	22	843	2.6	-	-	-	-		
2001	(7.8)	(21.2)	12.1	15.2	1	20	1,187	1.7	-	-	-	-		
2002	(12.0)	(15.7)	14.8	16.0	5	152	1,328	11.4	-	-	-	-		
2003	31.9	39.2	16.3	17.8	7	387	2,133	18.1	0.19	32.9	31.1	31.6		
2004	19.7	20.7	14.9	15.5	7	354	2,697	13.1	0.12	20.1	18.9	19.8		
2005	8.6	14.0	10.8	11.4	7	514	2,610	19.7	0.21	9.4	7.9	8.9		
2006	28.0	26.9	7.4	9.3	6	555	3,076	18.0	0.23	28.3	27.8	28.0		
2007	10.1	11.6	7.1	9.4	5	385	2,992	12.9	0.33	10.4	9.4	10.0		
2008	(32.92)	(43.06)	15.7	19.3	4	170	2,009	8.5	0.58	(31.7)	(33.4)	(32.6)		
2009	31.6	32.5	18.8	23.6	4	208	2,583	8.1	0.40	32.1	31.2	31.5		
2010	9.5	8.2	21.0	26.3	5	269	3,123	8.6	0.29	9.9	9.2	9.6		
2011	(1.7)	(11.7)	17.1	22.5	9	476	3,510	13.6	0.64	(0.5)	(2.4)	(1.4)		
2012	17.2	17.9	14.3	19.3	11	1,046	7,263	14.4	0.40	18.0	16.9	17.3		



### Performance Disclosures (continued...)

Pyrford International Ltd has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

#### Notes to the performance presentation

Pyrford International, a wholly owned subsidiary of the Bank of Montreal, is an investment management firm based in the United Kingdom providing international asset management services for its clients. Pyrford is part of BMO's private client group which provides wealth management services in North America and the markets in which Pyrford additionally operates: Middle East, UK and Europe. As at 31 August 2013 Pyrford International Ltd had total assets under management and administration and term investments of US\$9,341m. For the purpose of measuring and presenting investment performance, all discretionary fee paying accounts of Pyrford International Ltd are allocated to a composite and a complete list and description of the composites is available on request. Additional information regarding the firm's policies and procedures for calculating and reporting performance returns is available upon request.

The Pyrford International Equity (Base Currency US\$) composite" comprises all fully discretionary, international equity accounts with a market value greater than US\$10m, a base currency of US\$ and no hedging restrictions. The benchmark for the composite is the MSCI EAFE index. The composite was first created on July 1, 1996. On April 1, 2002 the composite construction criteria were redefined to allow the inclusion of pooled funds, taxable funds and funds of between US\$10 – 15 million on the basis that these do not materially impact the returns generated.

All returns are calculated in US\$ terms on a time-weighted basis based on monthly valuations using modified Dietz. Composites have been asset weighted, where applicable, using the beginning of month market value adjusted for day weighted net inflows.

Where there are more than four accounts in the composite over a full year, dispersion is measured as the asset weighted standard deviation of asset weighted portfolio returns of all accounts in the composite for the full year.

The three-year annualised standard deviation measures the variability of the composite returns over the preceding 36-month period.

The accounts in this composite are unleveraged and derivatives are used solely for currency hedging purposes.

As at 31 August 2013, 7.0% of the composite assets were invested in Malaysia, Thailand and Taiwan which are not included in the MSCI EAFE Index. Historically the composite has invested between 2.4% and 13.0% in these countries.

Performance results are presented gross of management and custodial fees, but net of transaction costs and before taxes (except for non-reclaimable withholding tax). The standard management fee schedule for segregated management is as follows: 0.70% per annum on the first US\$50 million; 0.50% on the next US\$50 million, and thereafter 0.35% per annum.

There have been no significant events within the firm (such as ownership or personnel changes) which have materially impacted the historical investment performance.

#### Verification statement

Pyrford International Ltd has been verified for the period from January 1, 1994 to September 30, 2012 by Grant Thornton UK LLP. Copies of the verification report are available on request.

All requests for further information should be sent to Nicholas Miller, 79 Grosvenor Street, London, W1K 3JU (nicholas.miller@pyrford.co.uk)

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### CONCORD OFFICE MARKET SNAPSHOT

MATT HURD Vice President, Walnut Creek matt.hurd@transwestern.net

SCOTT ELLIS Senior Vice President, Walnut Creek scott.ellis@transwestern.net









### THE WILLOWS OFFICE PARK

### HIGHLIGHTS

CLASS B BUILDING BUILT IN 1979 84,715 SQUARE FEET OWNED SINCE 1989 93.6% LEASED



TRANSWESTERN<sup>®</sup>

CONCORD OFFICE MARKET SNAPSHOT | 5 WILLOWS OFFICE PARK















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## 10/17/2013















Public Pension Coordinating Council

## Public Pension Standards Award For Funding and Administration 2013

Presented to

## Contra Costa County Employees' Retirement Association

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

alan Hulinple

Alan H. Winkle Program Administrator

