ND STATE INVESTMENT BOARD MEETING

Friday, October 24, 2014, 8:30 a.m.
State Capitol, Peace Garden Room
Bismarck, ND

I. APPROVAL OF AGENDA

II. APPROVAL OF MINUTES (September 26, 2014)

III. INVESTMENTS

A. Epoch Global Equity Strategy and Market Update - Mr. Priest and Mr. Ulness (enclosed) (60 min)
B. Bank of North Dakota - Mr. Hunter (to follow) (15 min) **(Board Action)**
C. Callan Custody Review - Mr. Abesamis, Mr. Kinoshita (enclosed) (60 min) **(Board Action)**
D. Callan Securities Lending Review - Mr. Abesamis, Mr. Kinoshita, Mr. Erlendson (enclosed) (30 min)

IV. GOVERNANCE

A. Gov. Policy Amendments - (Second Reading) - Mr. Hunter (enc.) **(Board Acceptance)** (10 min)
B. Executive Director/CIO Annual Goals and SIB Client Survey - Mr. Hunte**r** (enclosed) (10 min)

V. QUARTERLY MONITORING - 9/30/14 (enclosed). (Board Acceptance) (15 min)

A. Executive Limitations/Staff Relations - Mr. Hunter
B. Budget and Financial Conditions - Ms. Flanagan
C. Investment Program - Mr. Schulz
D. Retirement Program - Ms. Kopp
E. Watch List (PIMCO) - Mr. Hunter (to follow)

VI. OTHER.

SIB meeting - November 21, 2014, 8:30 a.m. - Brynhild Haugland, State Capitol
SIB Audit Committee meeting - November 21, 2014, 1:00 p.m. - Brynhild Haugland, State Capitol

VII. ADJOURNMENT.

Any individual requiring an auxiliary aid or service, please contact the Retirement and Investment Office
(701) 328-9885 at least three (3) days prior to the scheduled meeting.

NORTH DAKOTA STATE INVESTMENT BOARD
MINUTES OF THE
SEPTEMBER 26, 2014, BOARD MEETING

MEMBERS PRESENT:
Drew Wrigley, Lt. Governor, Chair
Mike Sandal, Vice Chair
Clarence Corneil, Parliamentarian, TFFR Board
Lance Gaebe, Land Commissioner
Mike Gessner, TFFR Board
Rob Lech, TFFR Board
Kelly Schmidt, State Treasurer
Yvonne Smith, PERS Board
Cindy Ternes, WSI designee
Tom Trenbeath, PERS Board

BOARD MEMBERS ABSENT: Adam Hamm, Insurance Commissioner

STAFF PRESENT:
Connie Flanagan, Fiscal & Invt Op Mgr
Bonnie Heit, Assist to the SIB
David Hunter, ED/CIO
Fay Kopp, Dep. ED/CRO
Cody Schmidt, Compliance Officer
Darren Schulz, Dep. CIO
Susan Walcker, Invt Acct

OTHERS PRESENT:
Jeff Engleson, Land Dept.
Eric Hardmeyer, BND
Bob Humann, BND
Mel Olson, TFFR Board
Jan Murtha, Attorney General's Office
Bryan Reinhardt, PERS

CALL TO ORDER:

Lt. Governor Wrigley called the State Investment Board (SIB) meeting to order at 8:34 a.m. on Friday, September 26, 2014, at the Peace Garden Room, State Capitol, Bismarck, ND.

Commissioner Hamm was absent attending a National Association of Insurance Commissioners meeting where he serves as President.

AGENDA:

IT WAS MOVED BY MR. SANDAL AND SECONDED BY MR. GESSNER AND CARRIED ON A VOICE VOTE TO ACCEPT THE AGENDA FOR THE SEPTEMBER 26, 2014, MEETING AS DISTRIBUTED.

AYES: TREASURER SCHMIDT, MR. GESSNER, MS. TERNES, COMMISSIONER GAEBE, MS. SMITH, MR. LECH, MR. SANDAL, MR. TRENBEATH, MR. CORNEIL, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

MINUTES:

IT WAS MOVED BY MR. GESSNER AND SECONDED BY MS. TERNES AND CARRIED ON A VOICE VOTE TO APPROVE THE AUGUST 22, 2014, MINUTES AS DISTRIBUTED.

AYES: MS. SMITH, MR. SANDAL, MR. CORNEIL, MR. GESSNER, MR. LECH, MR. TRENBEATH, MS. TERNES, COMMISSIONER GAEBE, TREASURER SCHMIDT, AND LT. GOVERNOR WRIGLEY
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM

INVESTMENT MANAGEMENT FEES AND EXPENSES:

Mr. Hunter provided fee and assets under management (AUM) comparisons for Fiscal Years ending 2013 and 2014. For the Fiscal Years 2013 and 2014, fees/expenses were $44,703,232 and $43,233,477 and AUM $6,905,312,561 and $8,632,237,726, respectively.

Between Fiscal Years 2013 and 2014 the investment management fees and expenses for the Pension Trust (as a percent of average assets under management) declined by 14% or 11 basis points while the Insurance Trust declined by 31% or 13 basis points.

CALLAN CUSTODY AND FEE REVIEW:

Staff met with Callan representatives on September 22, 2014, and reviewed preliminary results of the custody and fee study of The Northern Trust. Results indicate the services provided by The Northern Trust are adequate and timely and are in line with other major trust providers. Callan representatives will present the results of the study at a future SIB meeting.

On April 1, 2014, The Northern Trust reduced their fees which is estimated to bring over $600,000 in annual savings; $340,000 for the Pension Trust and $260,000 for the Insurance Trust clients.

Mr. Hunter reviewed strategic initiatives as of September 26, 2014. Discussion was held on the Carver Governance Model and if the SIB should continue with the Carver Model or explore other alternatives. Mr. Hunter and several board members felt overall the model has worked well for the SIB and felt the SIB should continue with the model. Mr. Hunter indicated he has made tentative arrangements with Carver representatives to review the Carver Governance Model at the November 21, 2014, board meeting.

The SIB also discussed scheduling an annual retreat preferably after the legislative session. Staff will look into making those arrangements and report back to the board.

BANK OF NORTH DAKOTA (BND):

BND representatives Mr. Hardmeyer and Mr. Humann reviewed the BND and SIB Match Loan Program relationship. To date, the SIB has committed $200 million (on a revolving basis) to the program. The BND is requesting an additional commitment of $100 million from the SIB along with a 10 year fixed rate option instead of

the current 5 year fixed rate option. The BND is aware of several large projects that could request a total of $120 million in funding.

After discussion, the SIB directed staff to conduct an analysis of the SIB's current funding source to the program and report back to the board. The SIB currently funds the program through the Budget Stabilization Fund and staff felt other or better alternatives should be explored.

The Board recessed at 9:50 a.m. and reconvened at 10:03 a.m.

Mr. Trenbeath was absent.

GOVERNANCE REVIEW:

Mr. Hunter reviewed the SIB's Carver Governance Policy Manual and also reviewed first readings of suggested amendments to policies.

Lt. Governor Wrigley left the meeting at 11:15 a.m. and Mr. Sandal officiated over the remainder of the meeting.

Under review of Board-Staff Relationship/Monitoring Executive Performance, Mr. Hunter distributed a draft of a Summary of Executive Governance Policy Monitoring. The Audit Supervisor, once on board, will be responsible for monitoring the Executive Director's adherence to governance policies and will present those findings to the SIB Audit Committee. Once reviewed by the SIB Audit Committee, the summary will then be made available to the SIB as part of the formal evaluation of the Executive Director in February 2015.

The SIB requested legal council to provide clarification on the following sections of the bylaws and report back to the board:

Chapter 2, Board, Section 2-3; When the statutes allow a Deputy to represent a member of the SIB or an alternate to represent the TFFR or PERS Board, the Chair will recognize the individual for the record, and the individuals (s) will then have the right to vote on matters before the SIB.

Chapter 5, Committees, Section 5-2; No member of the SIB will be paid, other than expenses, for attending seminars, conferences, or other such educational meetings.

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. LECH AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE FIRST READING OF AMENDMENTS TO THE GOVERNANCE POLICIES.

AYES: TREASURER SCHMIDT, MR. CORNEIL, COMMISSIONER GAEBE, MR. LECH, MR. SANDAL, MR. GESSNER, MS. SMITH, AND MS. TERNES
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM, MR. TRENBEATH, LT. GOVERNOR WRIGLEY

Mr. Hunter will submit the amended policies for a second reading and adoption at the October 24, 2014, meeting. Policy amendments are retained at RIO for 30 years per state guidelines.

BUDGET REVIEW:

Ms. Flanagan reviewed the status of RIO's budget as of June 30, 2014, for the 2013-15 biennium and the budget request for the 2015-17 biennium.

IT WAS MOVED BY MR. GESSNER AND SECONDED BY MR. LECH AND CARRIED ON A VOICE VOTE TO ACCEPT THE BUDGET REPORT.

AYES: MS. TERNES, MR. CORNEIL, TREASURER SCHMIDT, COMMISSIONER GAEBE, MR. LECH, MR. SANDAL, MS. SMITH, AND MR. GESSNER
NAYS: NONE
MOTION CARRIED
ABSENT: COMMISSIONER HAMM, MR. TRENBEATH, LT. GOVERNOR WRIGLEY

STAFFING UPDATE:

Mr. Hunter stated the Audit Supervisor position is expected to be filled on October 13, 2014, and the Investment Analyst position is expected to be filled by November 30, 2014.

EXECUTIVE REVIEW COMMITTEE:

Mr. Lech stated the Executive Review Committee met on September 18, 2014, with Mr. Hunter and reviewed the evaluation process, governance policies as they relate to the Executive Director's annual evaluation, and a draft of Mr. Hunter's annual goals.

The Executive Review Committee, Mr. Lech, Chair, Mr. Sandal, and Ms. Ternes felt the Committee completed its tasks and unless the SIB determined otherwise, the Committee is considered resolved.

Mr. Lech stated he will however administer the executive assessment survey to the SIB and compile the results at the appropriate timeframes. He would also be willing to serve on the next cycle of the Executive Review Committee when the Chair appoints that Committee.

GFOA CERTIFICATE:

Mr. Hunter informed the SIB the Government Finance Officers Association has awarded a Certificate of Achievement for Excellence in Financial Reporting to RIO for the 16th consecutive year. Mr. Hunter and the SIB recognized and thanked the fiscal management staff for their outstanding performance.

OTHER:

Mr. Hunter informed the board PIMCO co-founder and Chief Investment Officer, Mr. Bill Gross, resigned from PIMCO September 26, 2014, and will join Janus Capital Group on September 29, 2014. Mr. Hunter stated a meeting had previously been scheduled with the SIB's PIMCO relationship team to review the SIB's mandates on Thursday, October 2, 2014, at 10:00 am, at RIO and that the departure of Mr. Gross will also be addressed. Mr. Hunter stated all board members are welcome to attend and that he will provide an update at the October 24, 2014, meeting.

Next SIB Meeting – October 24, 2014, 8:30 a.m. - State Capitol, Peace Garden Room
Next SIB Audit Committee meeting – October 24, 2014, 1:00 p.m. - State Capitol, Peace Garden Room

ADJOURNMENT:

With no further business to come before the SIB, Mr. Sandal adjourned the meeting at 11:45 a.m.

_____
Lt. Governor Wrigley, Chair
State Investment Board

_____
Bonnie Heit
Assistant to the Board

Agenda Item III.A

TO: State Investment Board

FROM: Dave Hunter

DATE: October 24, 2014

SUBJECT: Epoch Global Equity Strategy and Market Update

Bill Priest, Chief Executive Officer, Co-Chief Investment Officer and Portfolio Manager, will provide an update of the firm he co-founded (Epoch Investment Partners, Inc.), the firms' investment philosophy and process and a portfolio review of our global equity strategy in addition to a capital markets update.

Epoch manages approximately $296 million within the Pension Trust for SIB clients. Recent investment performance (for the quarter ended September 30, 2014) has compared favorably versus the underlying MSCI World (global equity) benchmark which is consistent with impressive inception to date returns (since July of 2007). Epoch returns were below expectations for our most recent fiscal year ended June 30, 2014.

As of Sep. 30, 2014:	QTD	YTD	1 Yr	3-Yrs	5-Yrs	Inception
ND SIB	0.4%	-0.2%	9.5%	18.0%	12.1%	6.1%
MSCI World (Net)	-2.2%	3.9%	12.2%	17.9%	10.9%	2.7%

Source: Epoch Investment Partners, Inc.

EPOCH

Epoch Investment Partners, Inc.

Global Choice
Global Equity Shareholder Yield

Investment Management
William W. Priest, CFA
CEO, Co-CIO and Portfolio Manager

Relationship Management
Jeffrey M. Ulness
Managing Director, Sub Advisory Relations

Thomas Pernice
Managing Director, Client Service

Presentation to:

North Dakota

North Dakota State Investment Board

October 24, 2014

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Our Firm

Our Perspective

Our Investment Process – Global Choice

Account Review – Global Choice

Capital Markets Outlook

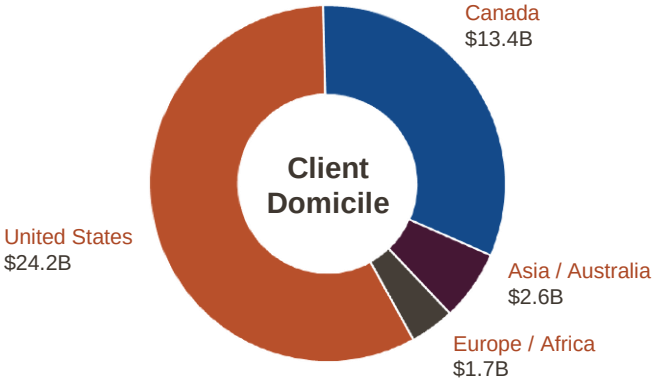
Epoch at a Glance

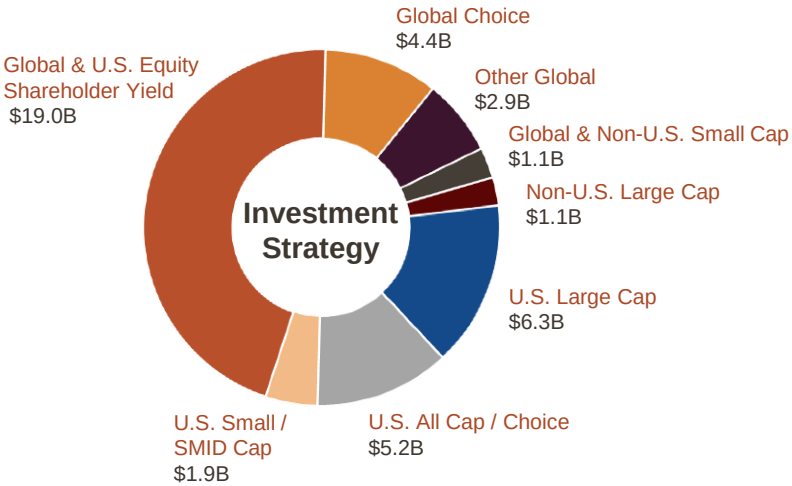
Global equity investors with a distinct perspective on the long-term drivers of shareholder return

- Investment process focused on the generation and allocation of free cash flow
- Formed in 2004 by an experienced group of investors
- A focused range of strategies managed for a diverse client base
- Risk management integrated throughout the investment process

Epoch at a Glance

AUM: $41.9 Billion[1]





Representative Client List[2]

Corporations
AICPA
ArcelorMittal USA
Computer Sciences Corp.
Kellogg Company
Nikko Asset Management Australia Limited
Nova Scotia Power Inc.
YMCA Retirement Fund

Endowments / Foundations
Bradley University
Wespath Investment Management

Public Funds
Florida SBA
North Dakota Investment Board
Oklahoma Teachers
PERS of Mississippi
State Super Financial Services Australia Limited

Health Care
Boston Medical Center
Greater Baltimore Medical Center
Inova Health System
New York-Presbyterian Hospital

Sub-Advisory
CI / Assante Funds
Curian Capital, LLC
Jackson National Asset Management
John Hancock Funds
New York Life / MainStay Funds
Prudential Investments
TD Bank Group
USAA

Taft Hartley
CWA/IT Union Negotiated Pension Plan
Major League Baseball Players Benefit Plan
Steelworkers Pension Trust

[1] *As of September 30, 2014; May not total due to rounding*
[2] *The institutional clients shown were selected based on client type and client domicile across all strategies. It is not known whether the listed clients approve or disapprove of the advisory services provided.*

Experienced Investment Team Supported by a Robust Infrastructure

Investment Team
Portfolio Managers, Analysts and Traders 35 Professionals
Average Industry Experience: 21 Years

Infrastructure		
Compliance, Operations and IT 17 Professionals	**Client Relations / Marketing** 26 Professionals	**Finance and Administration** 12 Professionals
Average Industry Experience: 18 Years		

As of September 30, 2014

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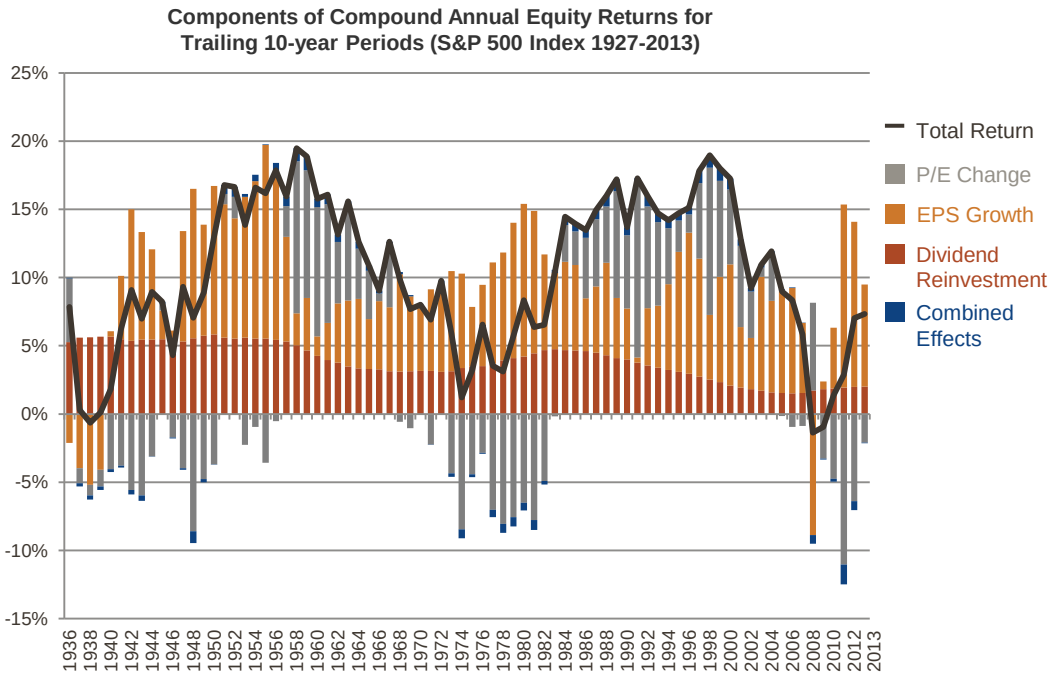
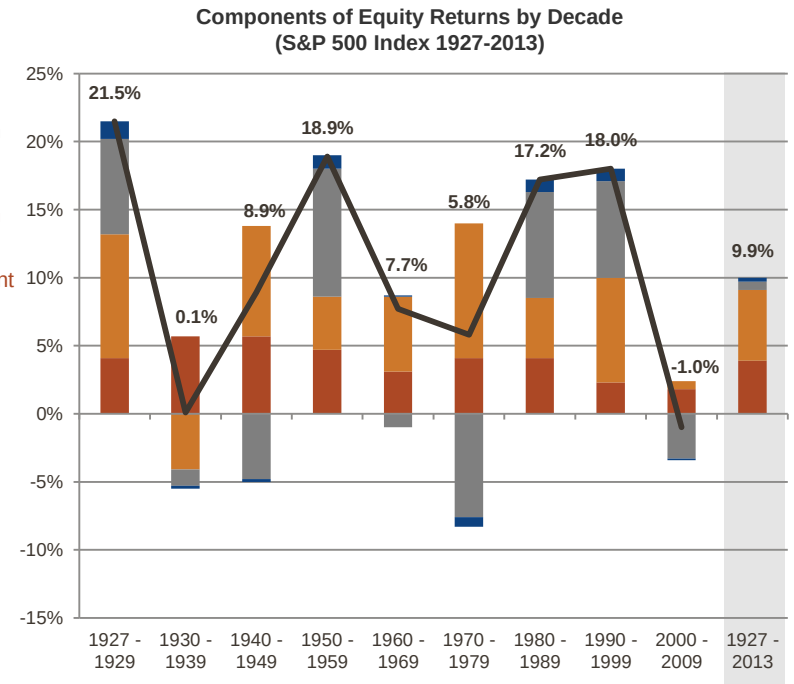
The Components of Equity Returns





Long -Term History

1927→ 2013	
Earnings	5.3%
Dividends	4.0%
P/E	0.6%
Annualized Return[1]	9.9%

Looking Ahead

2014 →	
Earnings	4% - 6%
Dividends	2%
P/E	???
Expected Return	6% - 8%

Sources: Epoch Investment Partners, Inc.; Standard & Poor's.
[1] S&P 500 total return (USD)

Epoch's Distinct Approach to Investing

Traditional Approach

Accounting Metrics

Earnings / Book Value

Valuation Analysis: Style Boxes

Value	Growth
P / B	PEG ratio
P / E	Rev CAGR

Epoch's Approach

Financial Metrics

Free-Cash-Flow Generation

Return *on* Capital vs. Return *of* Capital

Free-Cash-Flow Applications

- **Reinvest for Capital Growth**
  - Internal Projects
  - Acquisitions
- **Return Capital to Shareholders**
  - Cash Dividends
  - Share Repurchases
  - Debt Reduction

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Global Choice: Overview

- Concentrated portfolio of 25-35 high conviction stocks
- Unconstrained approach to capture the benefits of globalization
- Managed by a team of Epoch's experienced global investors
- Attractive risk-adjusted returns
- Inception 2005

EPOCH Annualized Excess Return[1,2] *(As of September 30, 2014)*	
Excess return:	
vs. MSCI World Index (Net)	4.0%

Risk Return Metrics - Since Inception[1,2] *(As of September 30, 2014)*		
	EPOCH	**MSCI World Index (Net)**
Standard Deviation	15.3	16.6
Sharpe Ratio	0.55	0.27
		EPOCH vs. Index
Information Ratio		0.66
Alpha		4.58
Beta		0.86
R^2		0.87

1 *Excess Return is the difference between annualized return (Gross-of-Fees) since inception for Global Choice and the MSCI World Index (Net) . Inception date is September 30, 2005. Performance for the most recent quarter is preliminary and subject to change.*

2 *The risk statistics are shown as supplemental information only and supplement the Composite presentation which is located within the Disclosure section of the presentation. Past performance is no guarantee of future results*

Global Choice: Investment Team

Research

Fundamental Analysis

Bill Booth (18)
Matthew Chan (15)
Eric Citerne (23)
Justin Howell (12)
Michael Jin (20)
Josepha Kaufman (19)
Gary Low (15)
John Morgan (20)
Janet Navon (33)
Alex Orozco (15)
David Pearl (30)
Bill Priest (49)
John Reddan (29)
Stephen Rose (14)
Eric Sappenfield (29)
David Siino (16)
Tim Sledge (20)
Jeffrey Smith (23)
John Tobin (33)
Jérôme Van Der Ghinst (11)
Kera Van Valen (13)
Chris Wolters (24)

Client Portfolio Managers

Gretchen Amidon (15)
Nuvan Athukorala (21)
John Miller (26)
Rick Vandale (30)
Richard Watt (32)

Quantitative Analysis & Risk Management

Mike Welhoelter (28)
Matt Herman (7)
Ken Hightower (17)
Dave Pratter (9)
Lilian Quah (11)
Jason Root (17)

Macro Analysis

Investment Policy Group

Bill Priest (49)
Bill Booth (18)
Eric Citerne (23)
Andrea Tasker Glogoff (20)
Kenneth Hightower (17)
Janet Navon (33)
Tom Pernice (33)
David Pearl (30)
John Reddan (29)
Eric Sappenfield (29)
John Tobin (33)
Richard Watt (32)
Mike Welhoelter (28)

Trading

Mark Strauss (28)
Doug Van Gorp (16)

Global Choice Team

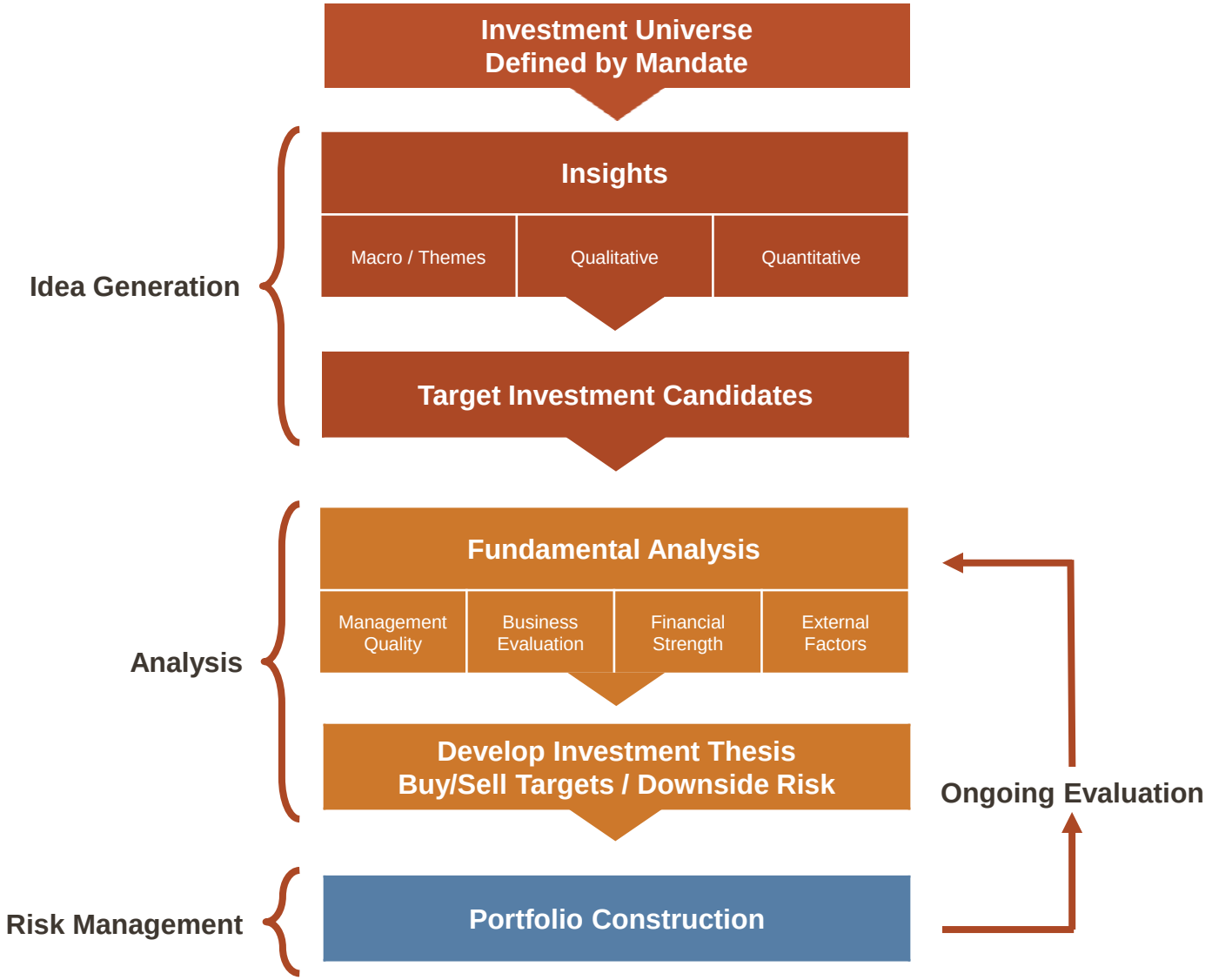
Bill Priest (49)
Bill Booth (18)
David Pearl (30)
Mike Welhoelter (28)
Josepha Kaufman (19)
John Reddan (29)
David Siino (16)
Gretchen Amidon (15)
Richard Watt (32)

Portfolio Managers

Bill Priest (49)
Bill Booth (18)
David Pearl (30)
Mike Welhoelter (28)

As of September 30, 2014
Numbers in parentheses denotes years of experience.

Investment Process: Overview



Investment Process: Stock Selection

Epoch Strategies

400-500 stocks

Stock Ideas

Weekly U.S. Research Meeting	Ad-Hoc Meetings with Analysts and PMs	Weekly Non-U.S. Research Meeting

Investment Themes

Investment Policy Group

Global Choice Team

Weekly Global Choice Meetings

Portfolio Construction / Risk Management

Global Choice Portfolio
(25-35 stocks)

Investment Process: Portfolio Themes

- Companies that benefit from the proliferation of smart devices ("internet of things") and provide productivity-enhancing solutions:
  - Applied Materials, Check Point, Citrix
- Improved capital positions, new regulation and greater cash flow visibility in financials:
  - CME, MetLife, Northern Trust
- Visible growth in emerging markets and a robust replacement cycle in developed markets offer opportunities in commercial aerospace:
  - Airbus Group, Boeing, Safran
- Managing costs and increasing access to health care:
  - AmerisourceBergen, CVS, UnitedHealth

As of September 30, 2014

Investment Process: Fundamental Bottom-Up Analysis

Portfolio Holding Example: CVS Caremark

Largest retail pharmacy chain in the United States.

Products

CVS CAREMARK

Over-the-Counter Medications

Prescription Pharmaceuticals

Strong Revenue Generation

$127Bn. in sales
- Retail pharmacy (46%)
- PBM (54%.

- 7,660 retail stores (21% market share).
- Second largest pharmaceutical benefit manager (PBM).

Sustainable Cash Flow

- **$6Bn.** in operating cash flow
- CVS is well positioned within the healthcare space.
  - Increasing volume of pharmaceuticals due to ageing demographics
  - Expanding use of generics as branded drugs come off patent
  - Increasing usage of specialty pharmaceuticals
  - Exposure to the fastest growing segments under healthcare reform
  - Consumer preference for more convenient and immediate healthcare services

Disciplined Capital Allocation

Reinvest for Capital Growth

Current investment plan:
- Net PP&E: $1.4Bn.
- Capital allocation emphasis has shifted from capital expenditures to cash distributions
  - Significant curtailing of new store growth
  - Attractive dividend complemented with substantial share repurchases

Return Capital to Shareholders

Policies for announced shareholder yield:
- Dividends: $1.1Bn.
- Share Repurchases: $4.0Bn.

Source: Epoch Investment Partners, Inc., and CVS Caremark Company Reports; 2013.
Information about specific companies or securities including whether they are profitable or not, is provided as a means of illustrating our investment thesis. Please see our disclosure located on the cover page of this presentation

Investment Process: Portfolio Construction and Risk Management

Portfolio Construction – Risk Control

- Inverse risk weighting
- Size limitations per holding
- Barra risk model measures factor exposures

Portfolio Holdings

Global Choice (25-35 stocks)

Ongoing Stock Evaluation

- Price target reached
- Change in investment thesis
- Portfolio rebalancing: aggregation and efficiency measures

Summary

- Captures Epoch's best thinking
- Wide latitude to invest across geographies, sectors and capitalization
- Record of superior long-term relative and risk-adjusted returns

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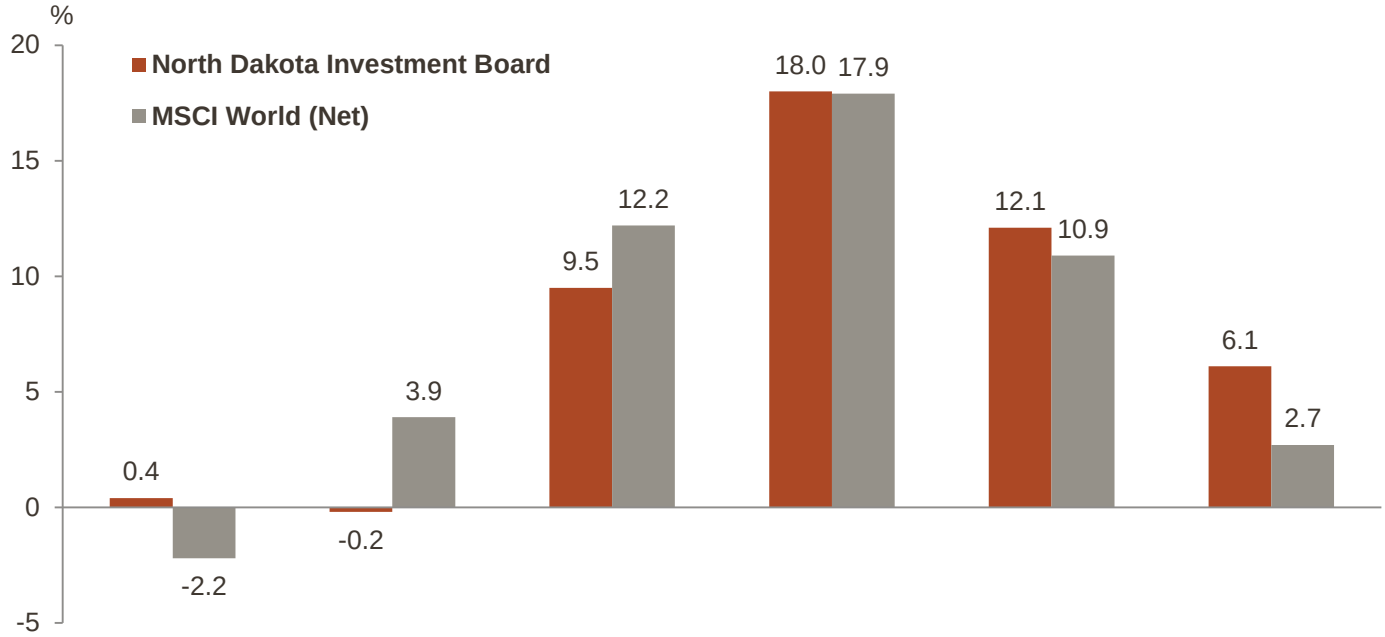
Account Review – Global Choice

Capital Markets Outlook

Performance: As of September 30, 2014

North Dakota Investment Board
Market Value: $296,023,869



	QTD	YTD	1 Year	3 Years	5 Years	Inception to Date (7/8/07)
North Dakota Investment Board	0.4	-0.2	9.5	18.0	12.1	6.1
MSCI World (Net)	-2.2	3.9	12.2	17.9	10.9	2.7

Performance for the most recent quarter is preliminary and subject to change. Returns are annualized for periods greater than one year. Periods less than one year are cumulative, unless otherwise noted. Additional information regarding policies for calculating and reporting returns is available upon request. Past performance is no guarantee of future results.

Performance Attribution: One Year Ending September 30, 2014

North Dakota Investment Board

	Account		*MSCI World*		*Attribution Effects*		
Sectors	Average Weight	Return (%)	Average Weight	Return (%)	Allocation Effect	Stock Selection	Total Effect
Consumer Discretionary	12.7	2.5	12.0	5.7	(0.1)	(0.3)	(0.4)
Consumer Staples	8.3	26.5	9.8	9.5	0.1	1.2	1.2
Energy	7.5	9.7	9.7	10.2	0.0	(0.1)	(0.1)
Financials	22.1	11.2	20.9	9.6	(0.1)	0.1	0.1
Health Care	7.4	23.7	11.6	24.5	(0.4)	(0.0)	(0.4)
Industrials	16.6	(1.1)	11.2	8.1	(0.1)	(1.2)	(1.4)
Information Technology	16.5	24.3	12.2	24.4	0.3	(0.5)	(0.2)
Materials	2.3	0.4	5.7	3.9	0.2	(0.0)	0.2
Telecommunication Services	1.0	(16.0)	3.6	9.9	0.1	(0.7)	(0.6)
Utilities	--	--	3.2	12.1	(0.0)	--	(0.0)
[Cash]	5.7	0.1	--	--	(0.8)	--	(0.8)
[Unassigned]	--	--	0.1	118.5	(0.1)	--	(0.1)
Total					**(0.8)**	**(1.6)**	**(2.4)**

Totals may not add due to rounding.
FactSet Research Systems, Inc.; Epoch Investment Partners, Inc.; MSCI Inc.

Performance Attribution: One Year Ending September 30, 2014

North Dakota Investment Board

	Account		*MSCI World*		*Attribution Effects*				
Country	Average Weight	Return (%)	Average Weight	Return (%)	Allocation Effect (Local)	Stock Selection (Local)	Total Effect (Local)	Total Currency Effect	Total Effect
Australia	0.0	0.0	3.2	(0.7)	0.3	0.0	0.3	0.1	0.4
Austria	0.0	0.0	0.1	(21.8)	0.0	0.0	0.0	0.0	0.0
Belgium	3.9	14.0	0.5	11.8	0.1	0.1	0.2	(0.1)	0.1
Canada	0.0	0.0	4.2	10.9	(0.2)	0.0	(0.2)	0.2	0.1
China	0.1	(9.7)	0.0	0.0	(0.2)	0.0	(0.2)	0.0	(0.2)
Denmark	0.0	0.0	0.5	27.0	(0.1)	0.0	(0.1)	0.0	(0.1)
Finland	0.0	0.0	0.4	13.3	(0.0)	0.0	(0.0)	0.0	(0.0)
France	8.2	4.7	4.1	1.7	(0.1)	0.4	0.3	(0.0)	0.3
Germany	0.9	(2.5)	3.8	1.9	0.3	(0.3)	(0.0)	0.2	0.2
Greece	0.0	0.0	0.0	9.0	(0.0)	0.0	(0.0)	0.0	(0.0)
Hong Kong	0.0	0.0	1.2	5.3	0.1	0.0	0.1	(0.0)	0.1
Ireland	0.0	0.0	0.1	11.8	(0.0)	0.0	(0.0)	0.0	(0.0)
Israel	3.5	22.4	0.2	28.8	0.6	(0.4)	0.2	0.1	0.3
Italy	0.0	0.0	1.0	15.6	(0.1)	0.0	(0.1)	0.1	(0.0)
Japan	2.7	(3.6)	8.4	0.6	0.3	(0.2)	0.1	0.4	0.5
Korea	0.5	(21.9)	0.0	0.0	(0.5)	0.0	(0.5)	0.0	(0.4)
Netherlands	0.0	0.0	1.1	5.1	0.0	0.0	0.0	0.1	0.1
New Zealand	0.0	0.0	0.1	0.4	(0.0)	0.0	(0.0)	0.0	0.0
Norway	0.0	0.0	0.3	10.1	(0.0)	0.0	(0.0)	0.0	0.0
Portugal	0.0	0.0	0.1	(18.8)	0.0	0.0	0.0	0.0	0.0
Singapore	0.0	0.0	0.6	4.2	0.0	0.0	0.0	(0.0)	0.0
Spain	0.0	0.0	1.4	15.7	(0.1)	0.0	(0.1)	0.1	(0.1)
Sweden	0.0	0.0	1.3	0.7	0.0	0.0	0.0	0.1	0.1
Switzerland	0.4	(9.5)	3.7	6.6	0.1	(0.3)	(0.2)	0.1	(0.1)
Taiwan	0.3	1.1	0.0	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)
United Kingdom	9.6	(10.2)	8.9	6.1	(0.1)	(1.9)	(1.9)	0.1	(1.8)
United States	64.2	16.2	54.7	18.6	0.2	(1.5)	(1.3)	0.2	(1.1)
[Cash]	5.7	0.1	0.0	0.0	(1.0)	0.0	(1.0)	0.2	(0.8)
Total					**(0.4)**	**(4.0)**	**(4.5)**	**2.0**	**(2.4)**

Totals may not add due to rounding.
FactSet Research Systems, Inc.; Epoch Investment Partners, Inc.; MSCI Inc.

Top & Bottom Contributors & Top Ten New & Closed Positions: One Year Ending September 30, 2014

North Dakota Investment Board

Top Five Absolute Contributors	Contribution to Portfolio Return (%)
CVS Health Corporation	1.4
Check Point Software Technologies Ltd.	0.8
SES SA Class A	0.8
Microsoft Corporation	0.7
Aetna Inc.	0.6

Bottom Five Absolute Detractors	Contribution to Portfolio Return (%)
Experian PLC	-0.5
Vodafone Group PLC	-0.5
Samsung Electronics Co., Ltd. GDR RegS	-0.4
PetSmart, Inc.	-0.4
LVMH Moet Hennessy Louis Vuitton SA	-0.3

Top Ten New Positions
UnitedHealth Group Incorporated
Microsoft Corporation
Citrix Systems, Inc.
Northern Trust Corporation
Sanofi
MetLife, Inc.
WPP Plc
Takeda Pharmaceutical Co. Ltd.
Ingersoll-Rand Plc
Seagate Technology PLC

Top Ten Closed Positions
National Oilwell Varco, Inc.
Las Vegas Sands Corp.
Delphi Automotive PLC
Bridgestone Corporation
International Paper Company
Visa Inc. Class A
SES SA Class A
Blackstone Group L.P.
LVMH Moet Hennessy Louis Vuitton SA
Arthur J. Gallagher & Co.

Source: FactSet Research Systems, Inc

Top Ten Countries & Holdings: As of September 30, 2014

North Dakota Investment Board

Top Ten Holdings	
	Portfolio Weight (%)
CVS Health Corporation	5.5
Occidental Petroleum Corporation	4.4
UnitedHealth Group Incorporated	4.2
Boeing Company	4.2
Anheuser-Busch InBev SA	4.1
Microsoft Corporation	4.1
Citrix Systems, Inc.	4.0
Northern Trust Corporation	3.8
Sanofi	3.7
Safran SA	3.7
Total	**41.7**

Top Ten Countries	
	Portfolio Weight (%)
United States	62.9
France	9.9
United Kingdom	7.4
Japan	4.6
Belgium	4.1
Israel	3.2
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Total	**92.2**

Source: FactSet Research Systems, Inc.

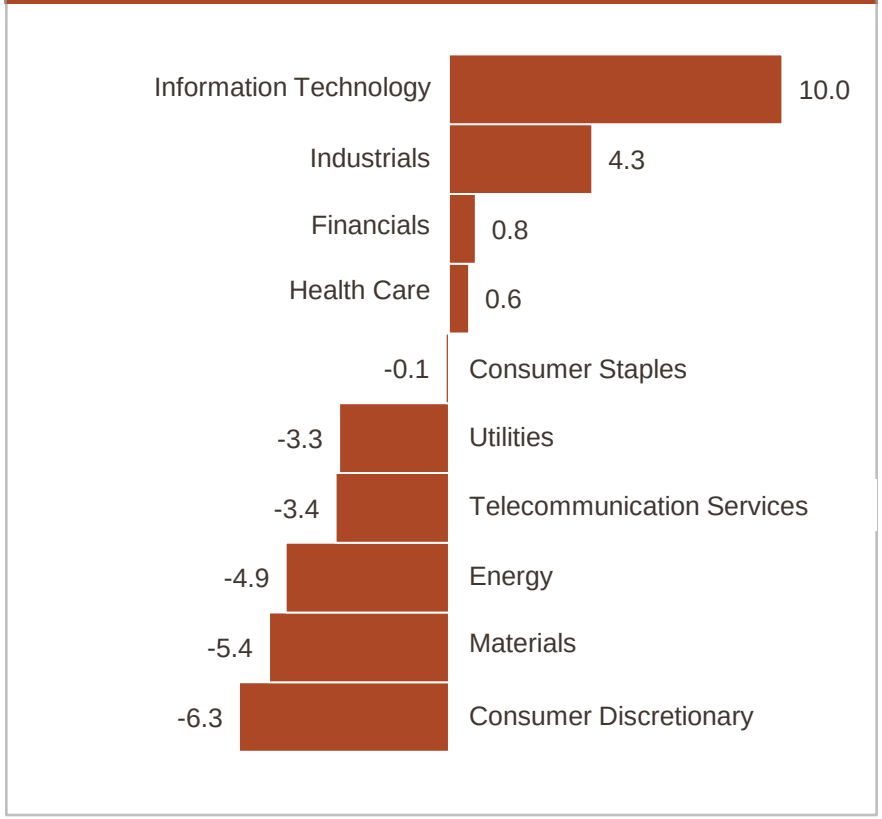
Sector Allocation & Characteristics: As of September 30, 2014

North Dakota Investment Board

Sector	Portfolio Weight (%)	MSCI World (Net) (%)
Consumer Discretionary	5.4	11.7
Consumer Staples	9.6	9.7
Energy	4.4	9.3
Financials	21.6	20.8
Health Care	13.0	12.4
Industrials	15.2	10.9
Information Technology	23.0	13.0
Materials	0.0	5.4
Telecommunication Services	0.0	3.4
Utilities	0.0	3.3

Characteristics	Portfolio	MSCI World
Dividend Yield (%)	1.9	2.4
Enterprise Value to EBITDA (x)	10.3	9.5
Market Cap (Wt. Avg.)	92,837	96,981
Market Cap (Wt. Median)	60,519	52,438
Predicted Beta	0.9	--
12 Month Turnover	93%	--
Number of Equity Positions	29	1,615

Sector Weights Relative to MSCI World Index



Cash represents 7.8% of the portfolio
Source: FactSet Research Systems; MSCI Inc. The data is unaudited and may change at any time. The data is shown for informational purposes only and is not indicative of future portfolio characteristics or returns.

Portfolio Positioning: As of September 30, 2014

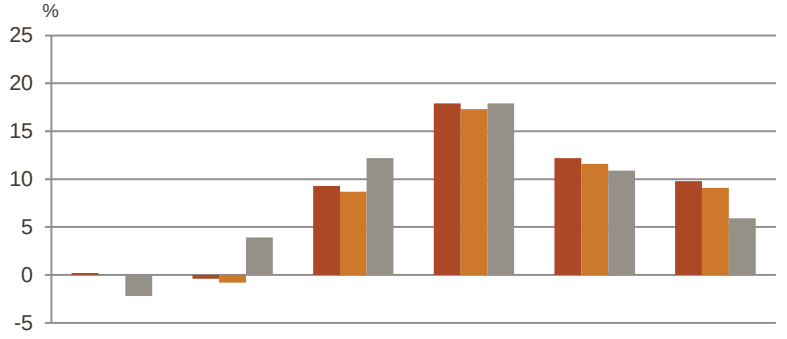
Sector	Security	Domicile	Weight (%)
Information Technology: 23.1%	Microsoft Corporation	United States	4.1
	Citrix Systems, Inc.	United States	4.0
	Apple Inc.	United States	3.3
	Check Point Software Technologies Ltd.	Israel	3.2
	Seagate Technology PLC	United States	2.7
	Oracle Corporation	United States	2.2
	Applied Materials, Inc.	United States	2.0
	Tokyo Electron Ltd.	Japan	1.5
Financials: 21.7%	Northern Trust Corporation	United States	3.9
	CIT Group Inc.	United States	3.6
	MetLife, Inc.	United States	3.6
	CME Group Inc. Class A	United States	3.5
	American International Group, Inc.	United States	3.1
	Marsh & McLennan Companies, Inc.	United States	2.1
	Lloyds Banking Group plc	United Kingdom	2.0
Industrials: 15.2%	Boeing Company	United States	4.2
	Safran SA	France	3.7
	Ingersoll-Rand Plc	United States	2.7
	Airbus Group NV	France	2.6
	Experian PLC	United Kingdom	2.0
Health Care: 13.1%	UnitedHealth Group Incorporated	United States	4.3
	Sanofi	France	3.7
	Takeda Pharmaceutical Co. Ltd.	Japan	3.1
	AmerisourceBergen Corporation	United States	2.0
Consumer Staples: 9.6%	CVS Caremark Corporation	United States	5.5
	Anheuser-Busch InBev SA	Belgium	4.1
Consumer Discretionary: 5.5%	WPP Plc	United Kingdom	3.4
	Twenty-First Century Fox, Inc. Class B	United States	2.1
Energy: 4.4%	Occidental Petroleum Corporation	United States	4.4
	Cash		7.5
	Total		**100.0**

Source: Epoch Investment Partners, Inc. The data shown above is of a representative account and such data may vary for each client in the strategy due to market conditions, client guidelines and diversity of portfolio holdings. The data is unaudited and may change at any time. The data is supplemental to the composite presentation, is shown for informational purposes only, and is not indicative of future portfolio characteristics or returns.

Global Choice: Composite Results

As of September 30, 2014

Returns



	QTD	YTD	1 Year	3 Year	5 Year	Annualized Since Inception[1]
EPOCH (Gross)	0.2	-0.4	9.3	17.9	12.2	9.8
EPOCH (Net)	0.0	-0.8	8.7	17.3	11.6	9.1
MSCI World Index (Net)	-2.2	3.9	12.2	17.9	10.9	5.9

Risk Return Metrics - Since Inception[1,2]

	EPOCH	MSCI World Index (Net)
Standard Deviation	15.3	16.6
Sharpe Ratio	0.55	0.27

	EPOCH vs. Index
Information Ratio	0.66
Alpha	4.58
Beta	0.86
R^2	0.87

	2013	2012	2011	2010	2009	2008	2007	2006	2005[3]
EPOCH Gross Return	**32.5**	**15.4**	**-0.1**	**6.8**	**37.4**	**-35.6**	**17.2**	**30.0**	**6.4**
EPOCH Net Return	**31.8**	**14.9**	**-0.6**	**6.3**	**36.2**	**-36.3**	**16.2**	**28.9**	**6.1**
MSCI World Index (Net)	26.7	15.8	-5.5	11.8	30.0	-40.7	9.0	20.1	3.1

1 Inception date is September 30, 2005. Performance for the most recent quarter is preliminary and subject to change.
2 The risk statistics are shown as supplemental information only and supplement the Composite presentation which is located within the Disclosure section of the presentation.
3 Data represents a partial year from 9/30/05-12/31/05.
Past performance is no guarantee of future results.

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Agenda

Our Firm

Our Perspective

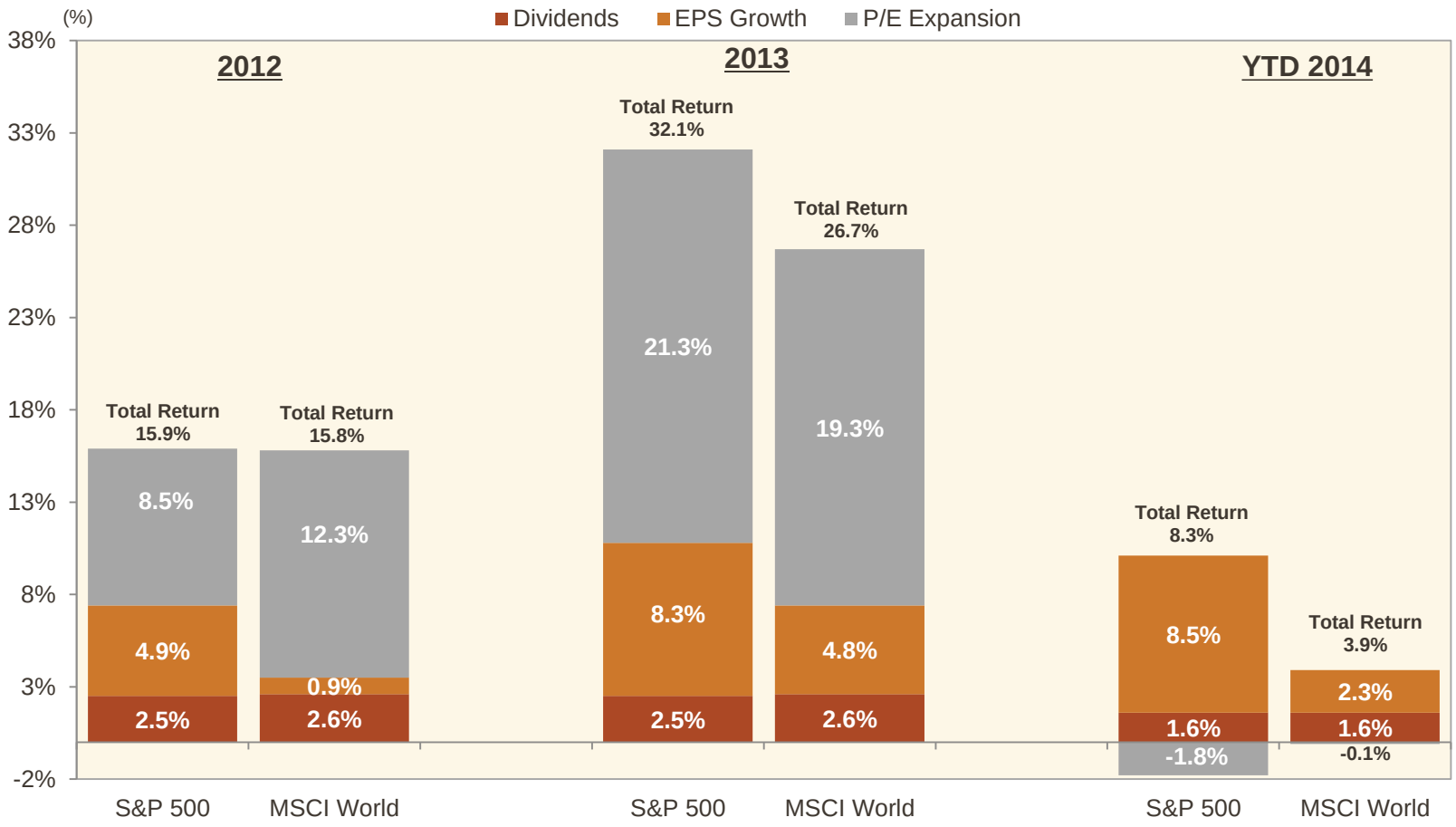
Our Investment Process – Global Choice

Account Review – Global Choice

Capital Markets Outlook

Global Monetary Policy Always Present

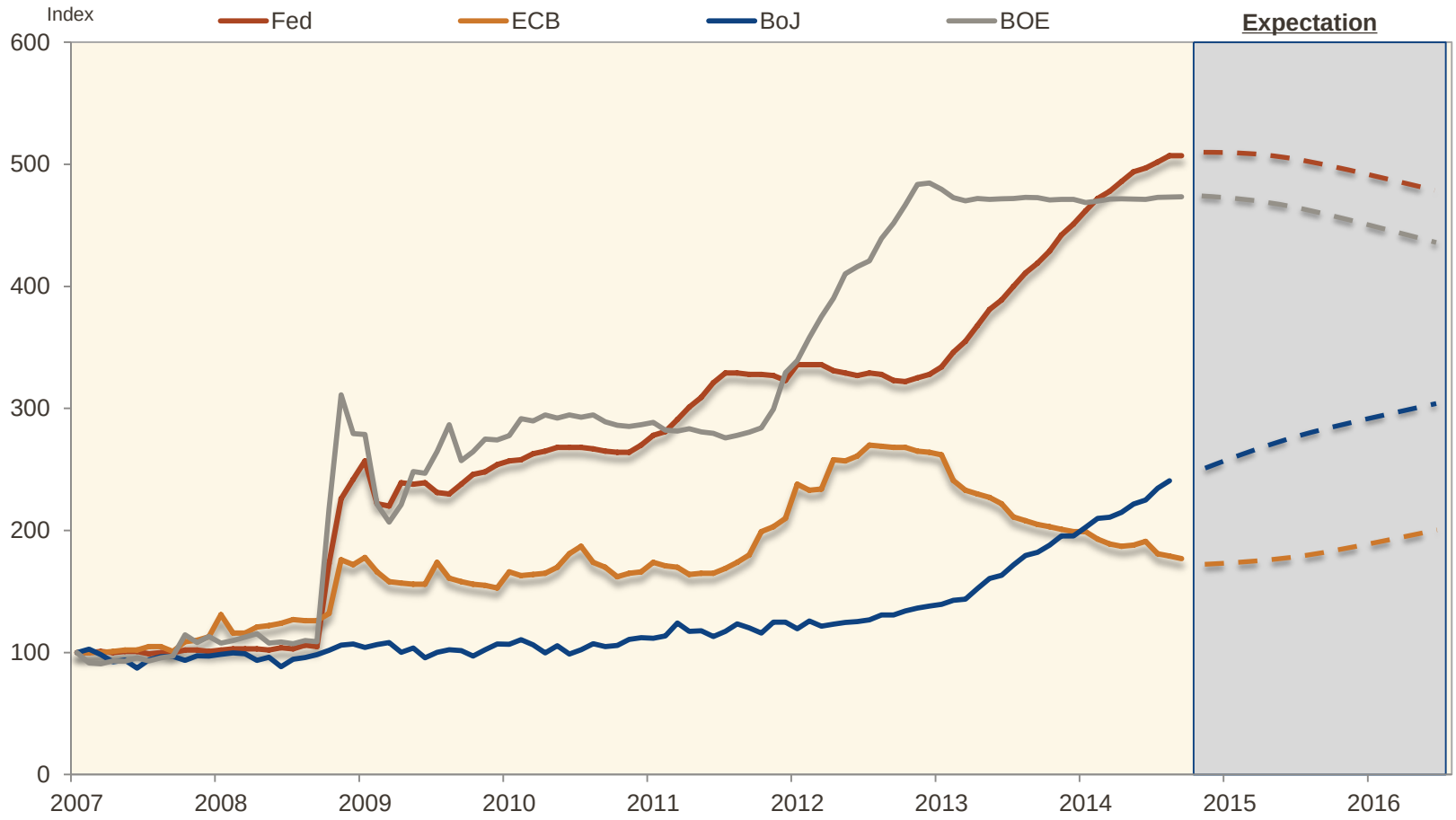
Breakdown Of Benchmark Performance



Numbers may not total due to rounding
Source: Standard and Poors; MSCI; Epoch Investment Partners; September 2014

Central Bank Policies Diverging

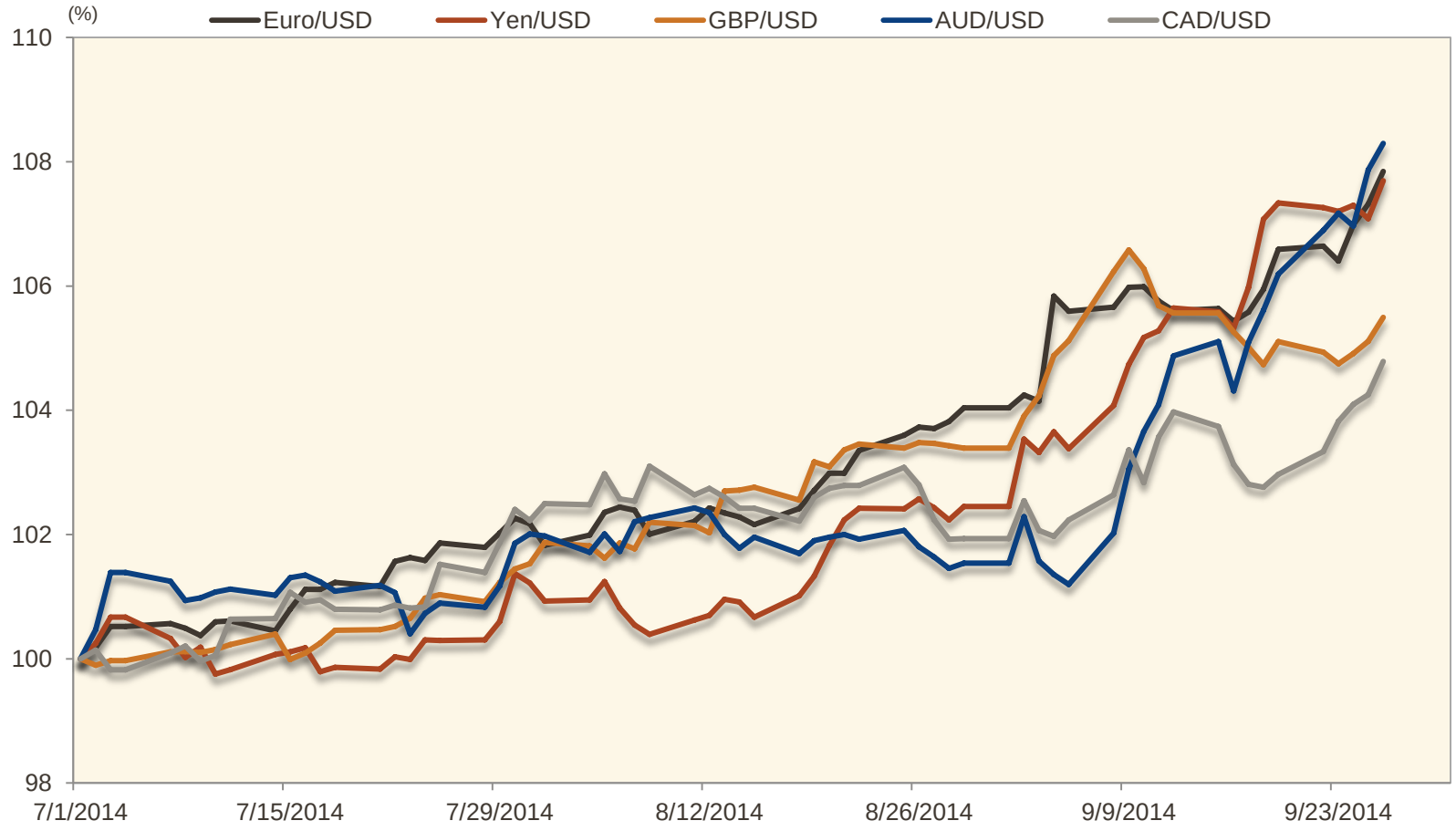
Central Bank Balance Sheets



Source: Pavilion Global Markets; Indexed to 100 January 1, 2007; September 2014

Dollar Strengthened Against Major Currencies In The Third Quarter

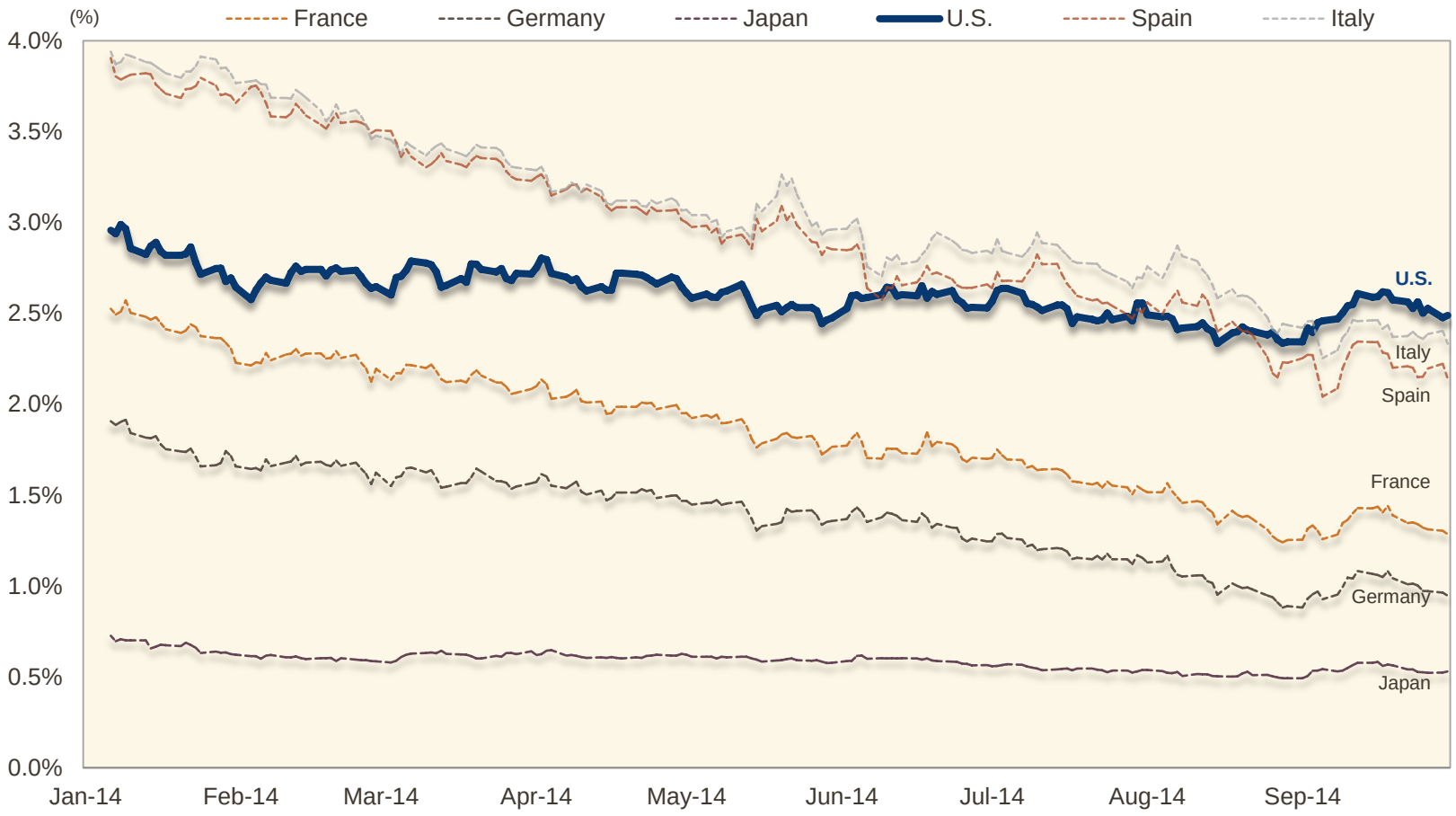
Exchange Rates In USD Terms



Source: Federal Reserve, Epoch Investment Partners; Indexed to 100 July 1, 2014; September 2014

Deflation Fears Driving ECB Policy

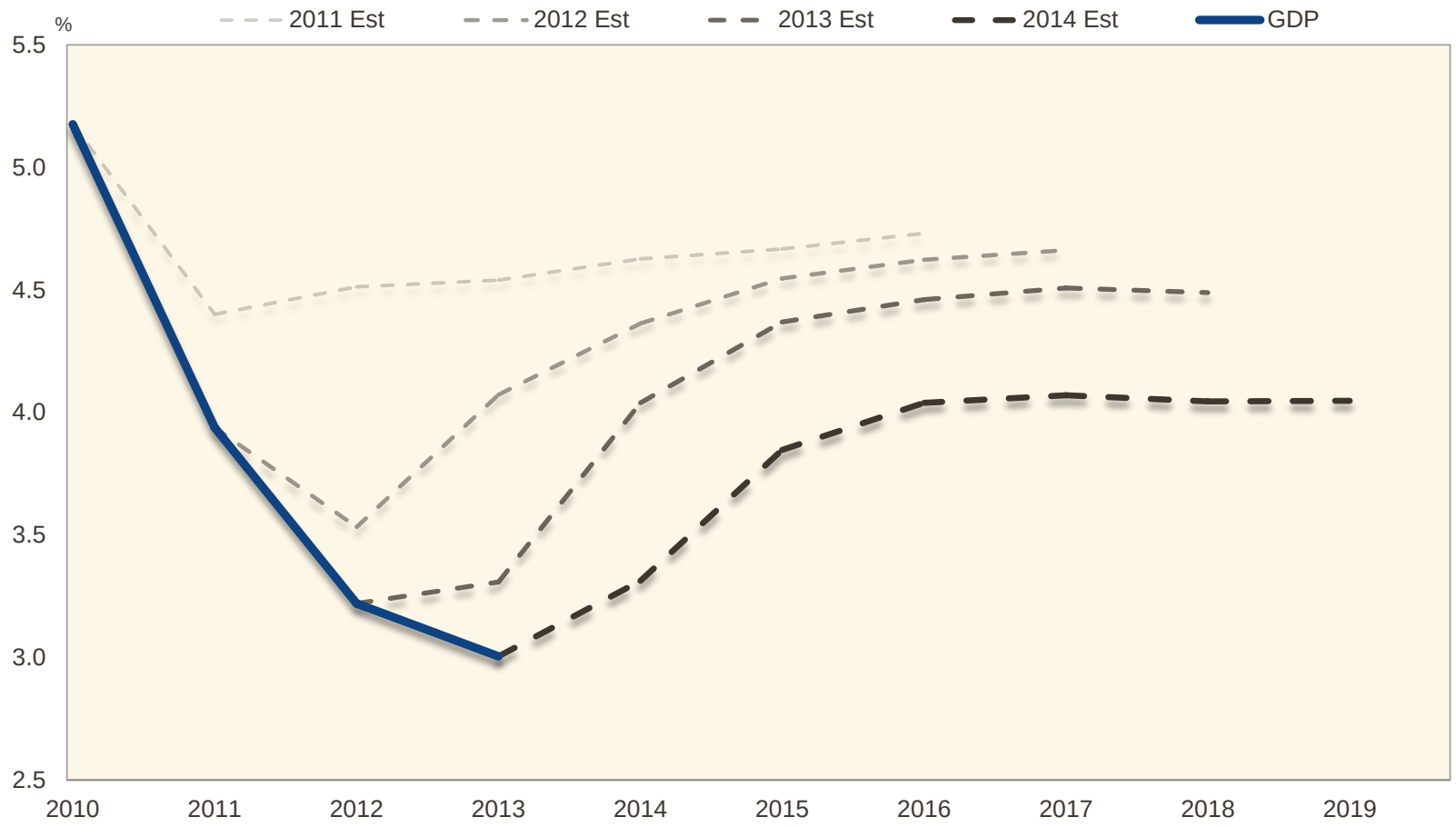
Global 10-Year Bond Yields



Source: Pavillion Global Markets; September 2014

The Big Problem: Secular Stagnation

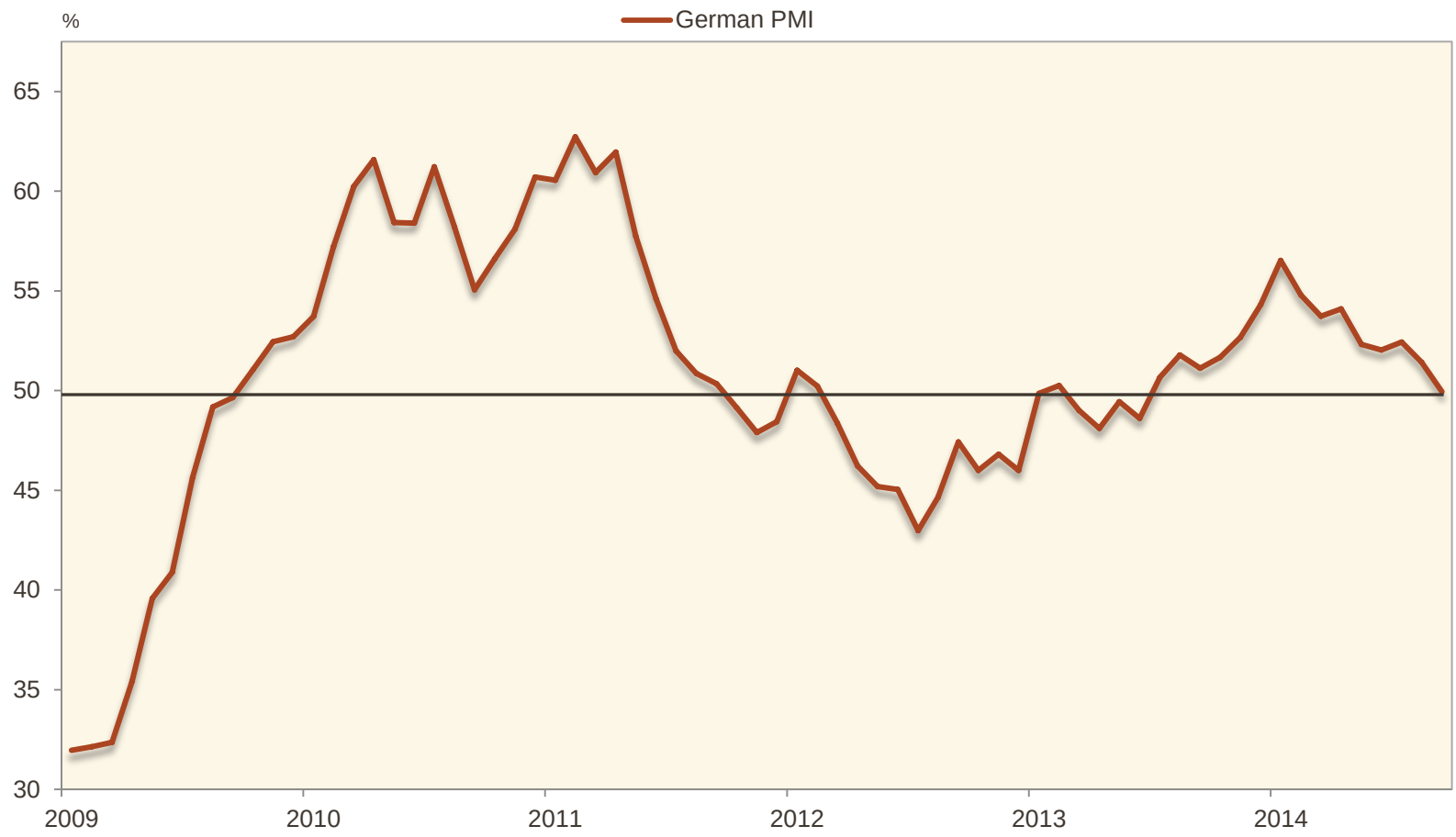
World Real GDP Growth Continues To Be Revised Down



Source: IMF World Economic Outlook; October 2014

Contraction Is Underway In Germany . . .

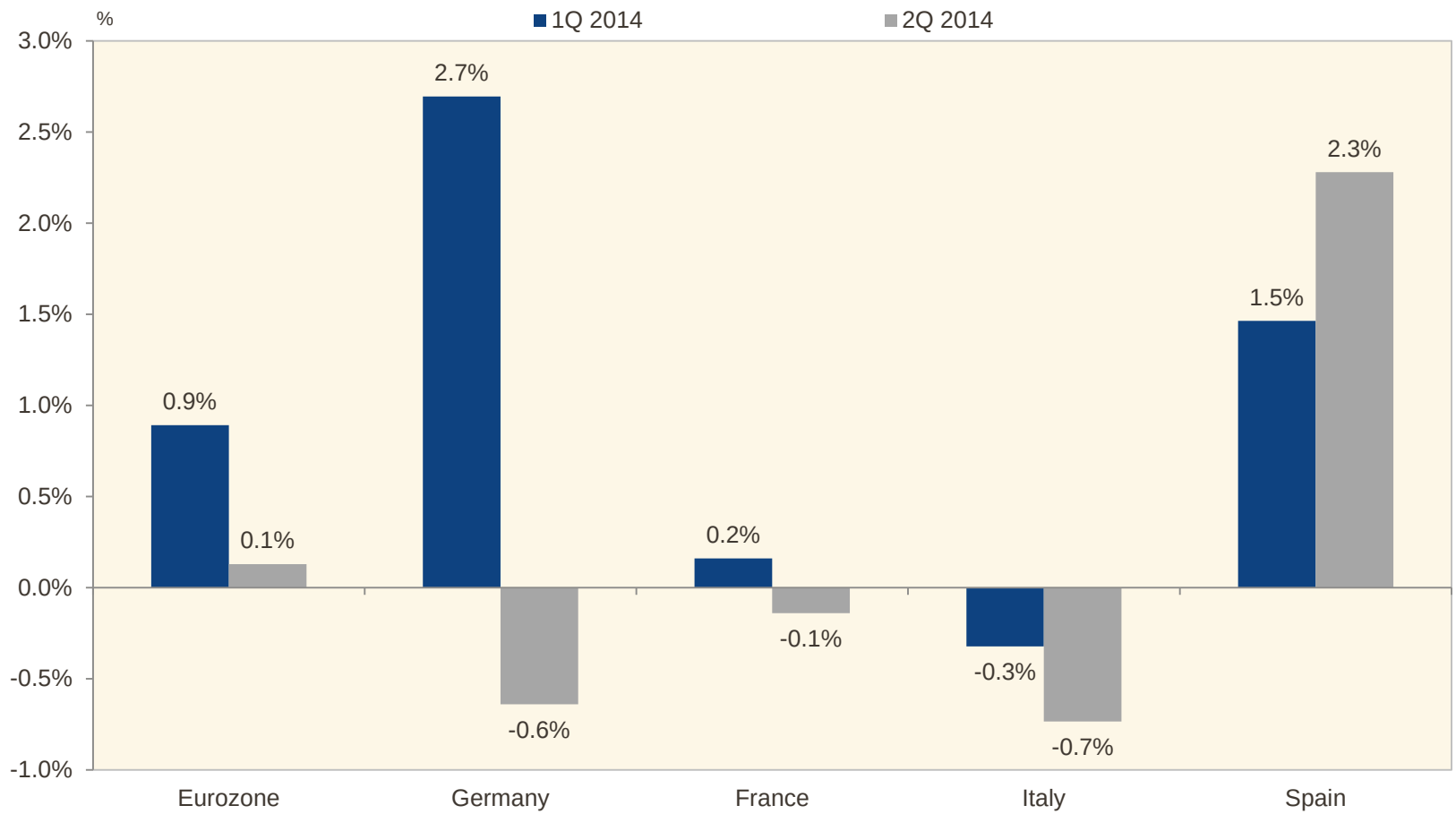
German Manufacturing PMI



Source: Strategas Research Partners via Markit; September 2014

. . . And Most Of Europe

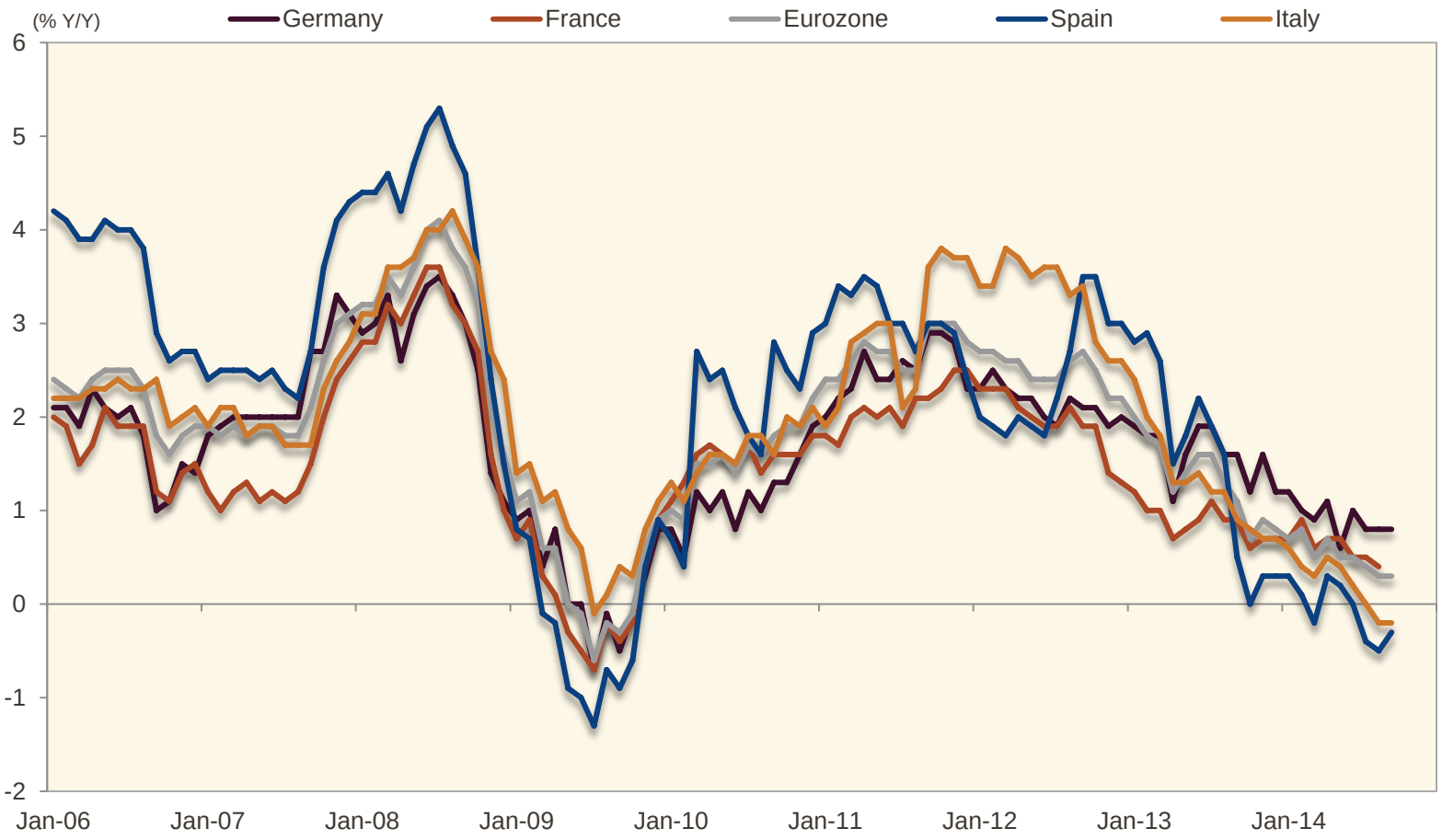
GDP Growth Quarter-Over-Quarter



Source: Strategas Research Partners; June 2014

Deflation A Real Threat

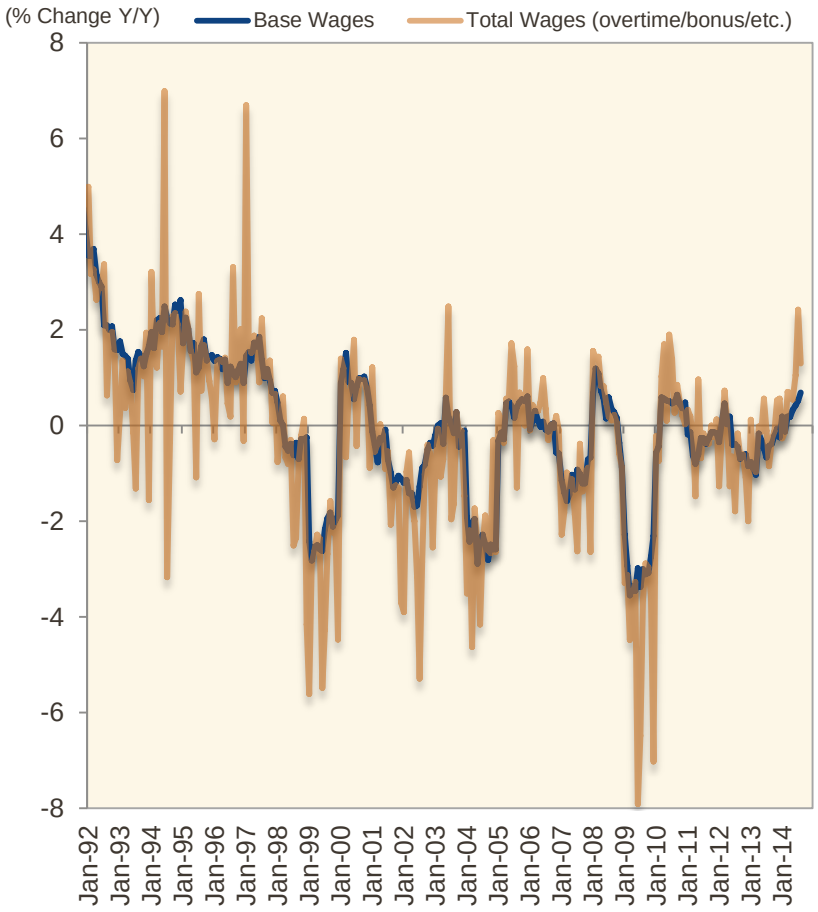
Harmonized Index Of Consumer Prices



Source: Pavilion Global Markets (Germany Federal Statistical Office and INSEE data via Bloomberg); September 2014

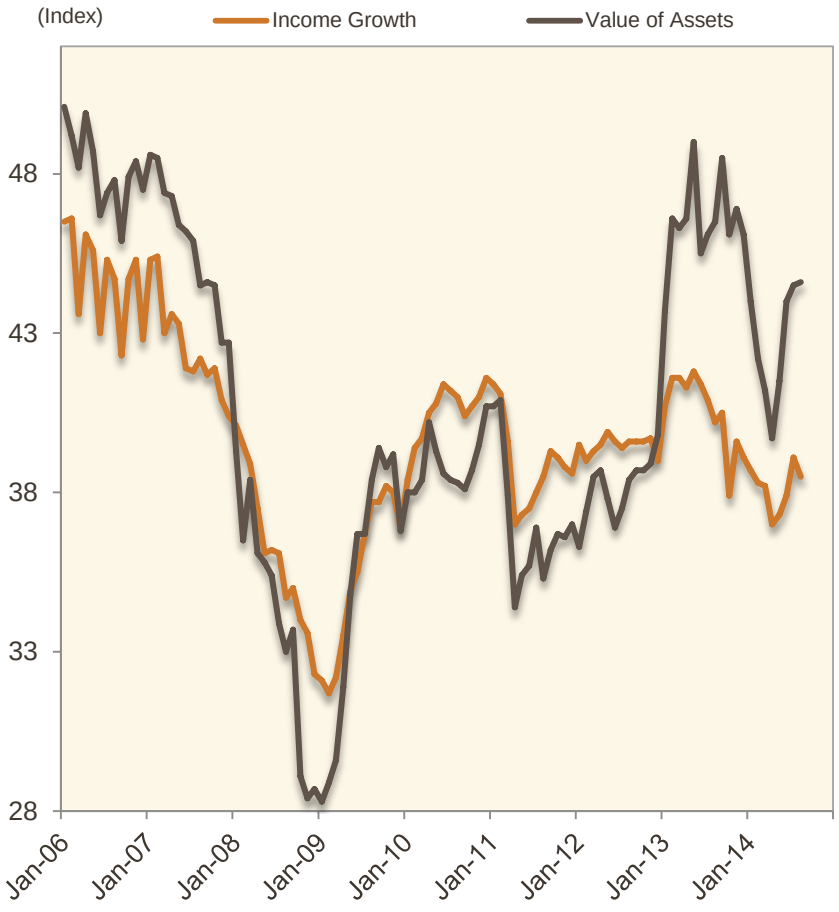
Abenomics Boosted Income Growth, But Consumers Are Skeptical

Cash Earnings Year-Over-Year



Source: Pavilion Global Markets (Bank of Japan Data via Bloomberg); September 2014

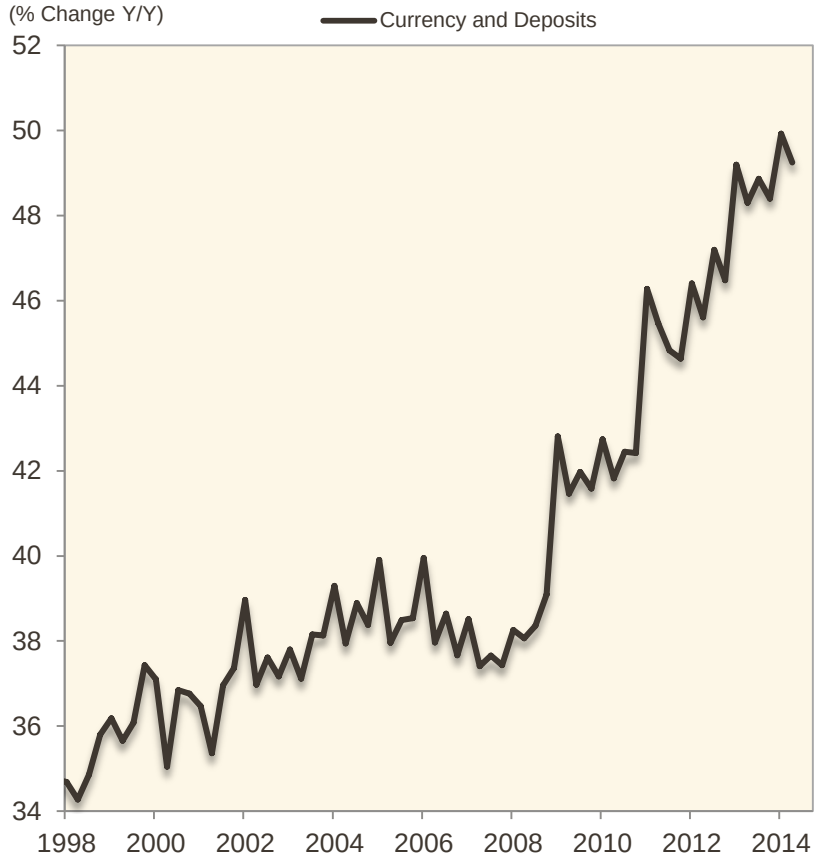
Japan Consumer Confidence Survey – Income Growth, Asset Growth



Source: Pavilion Global Markets (Cabinet Office via Datastream); September 2014

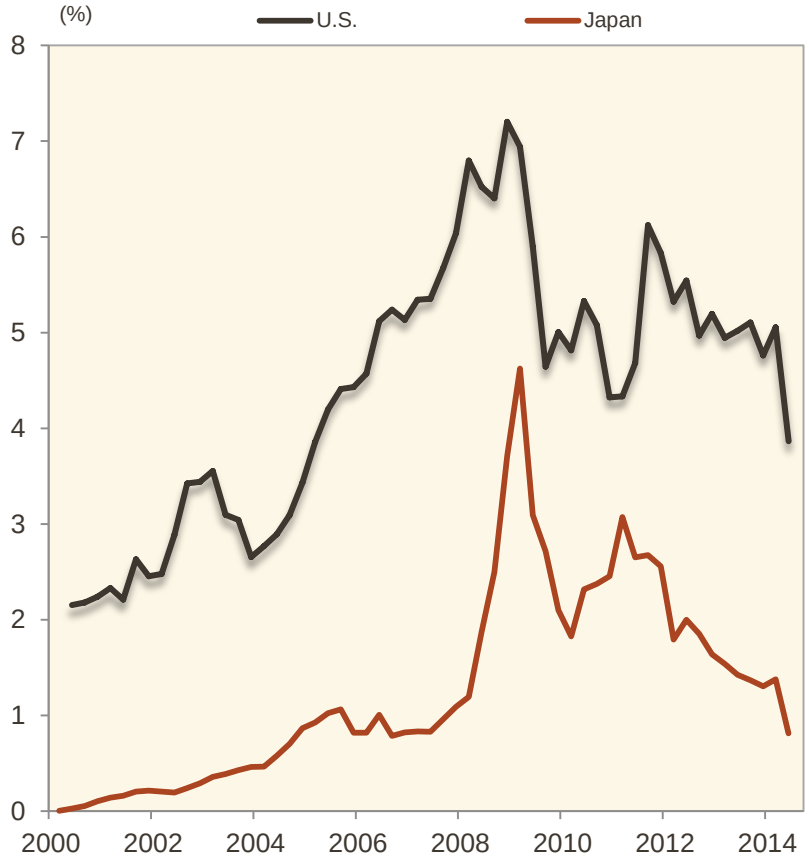
Japanese Corporations Continue To Hoard Cash

Non-Financial Corporations: Currency and Deposits



Source: Pavilion Global Markets (Cabinet Office, Bank of Japan, Data via (Datastream); September 2014

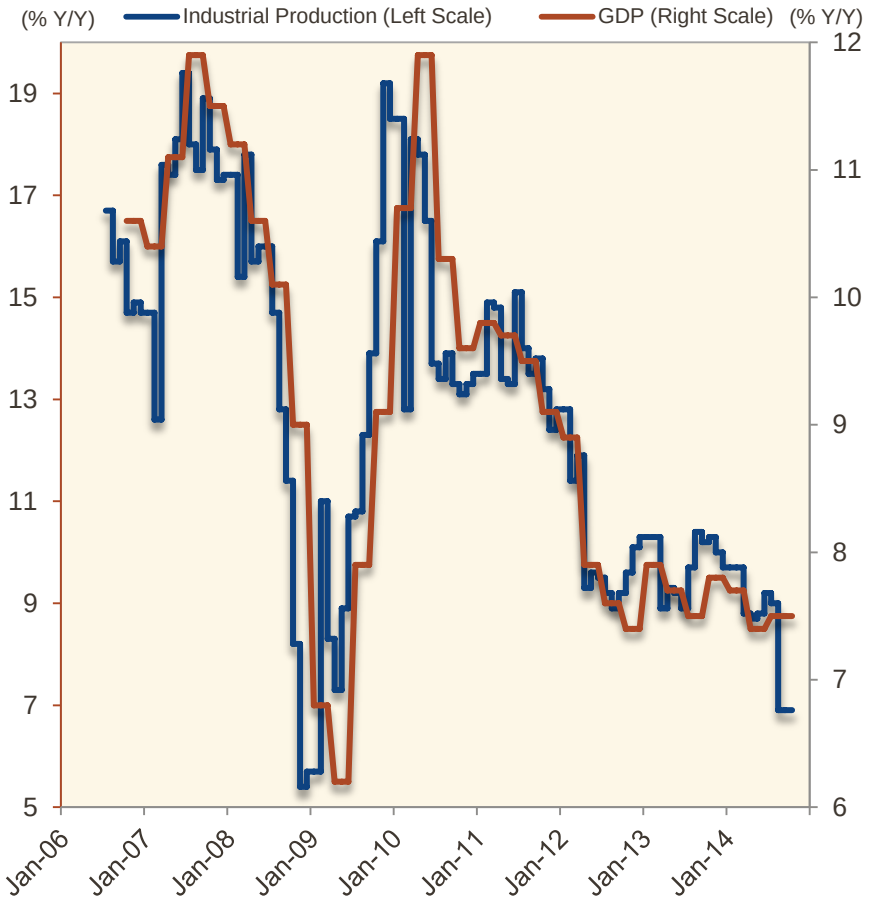
Buyback Yield + Dividend Yield, S&P 500 and Nikkei



Source: Pavilion Global Markets (Data via Bloomberg); September 2014

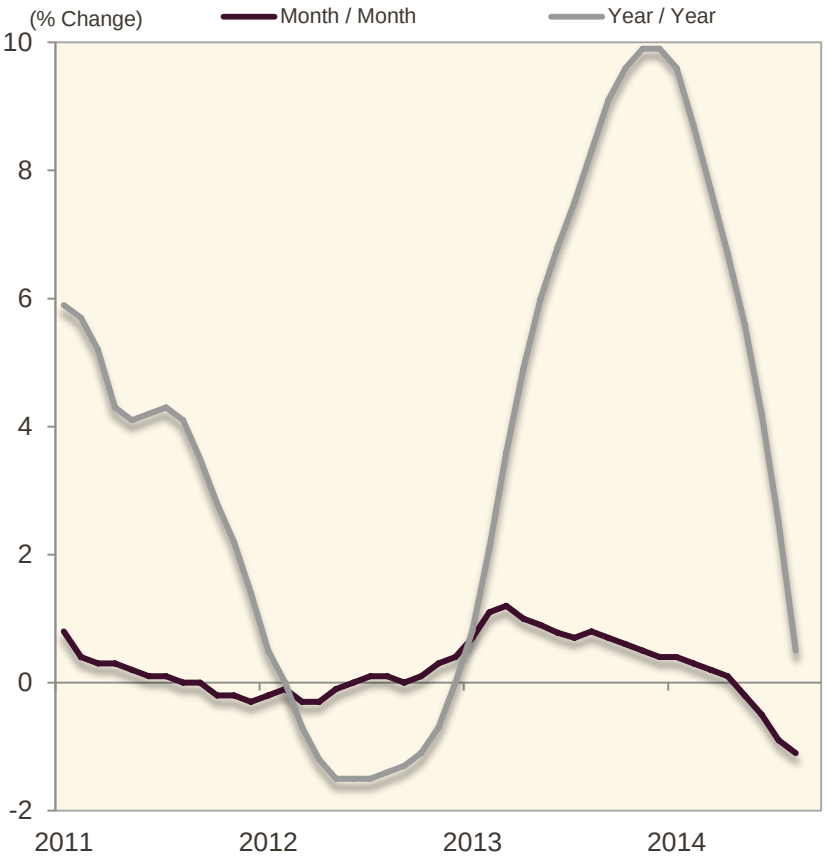
Chinese Growth Continues To Weaken

Industrial Production and GDP Growth



Source: Pavilion Global Markets (NBS Data via Bloomberg); September 2014

China Home Prices 70 Medium and Large Cities

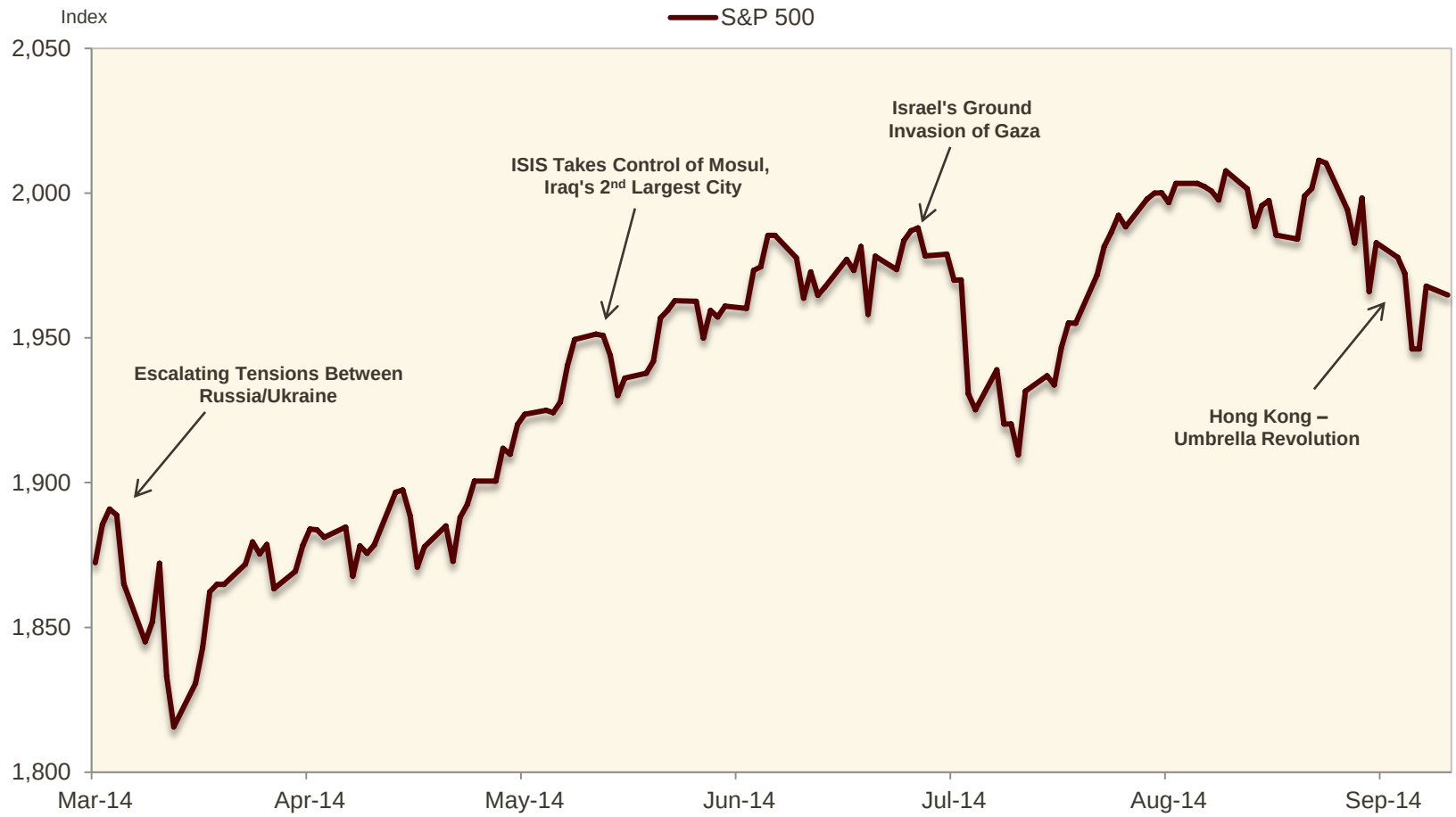


Source: Pavilion Global Markets (National Bureau of Statistics of China Data via Datastream); September 2014

Geopolitical Risks Persist

Global Conflicts Soon To Influence Markets?

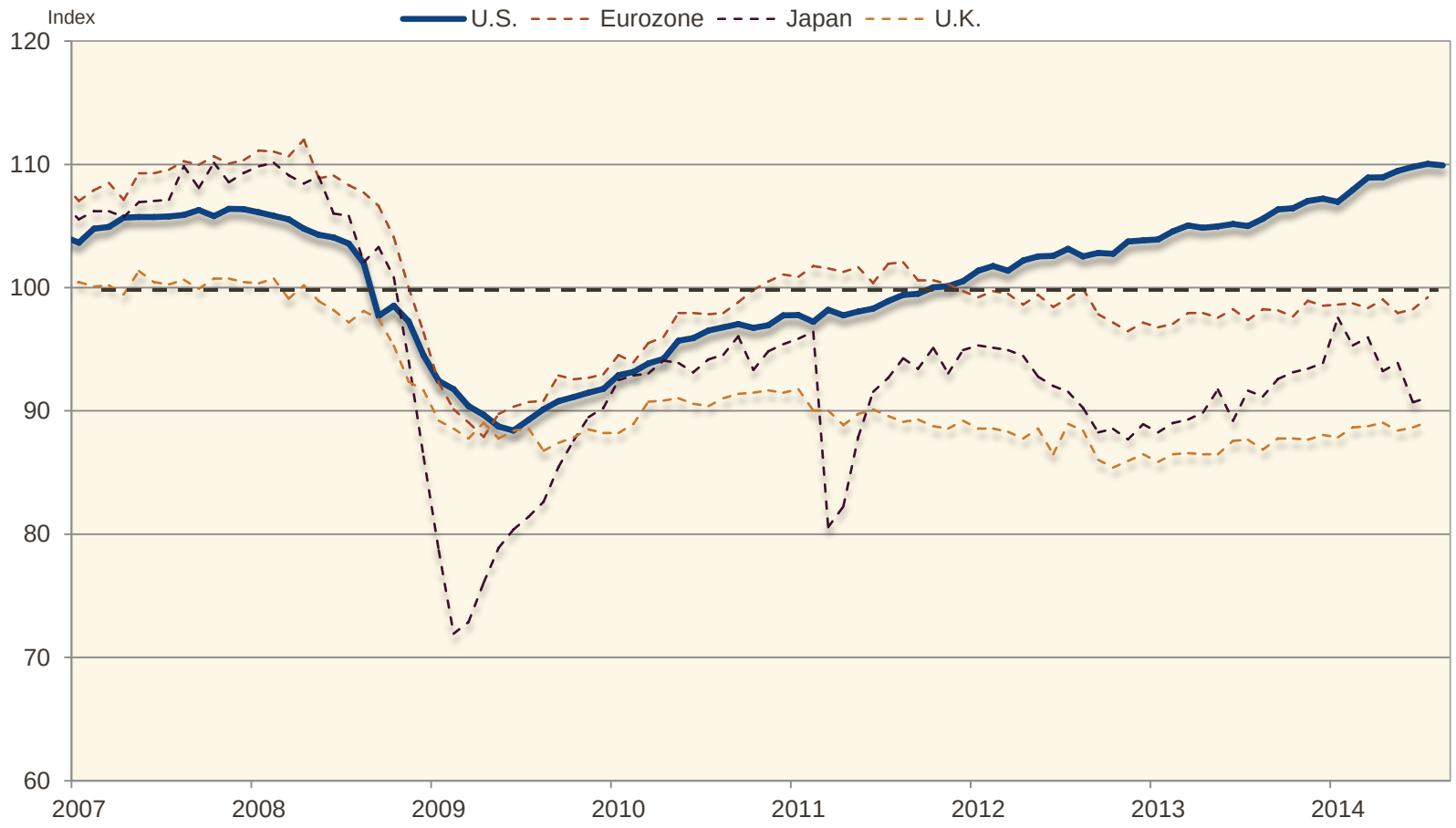
Geopolitical Risks



Source: Standard & Poors, Epoch Investment Partners; October 2014

U.S. Growth Outlook Remains Better Than Rest Of World

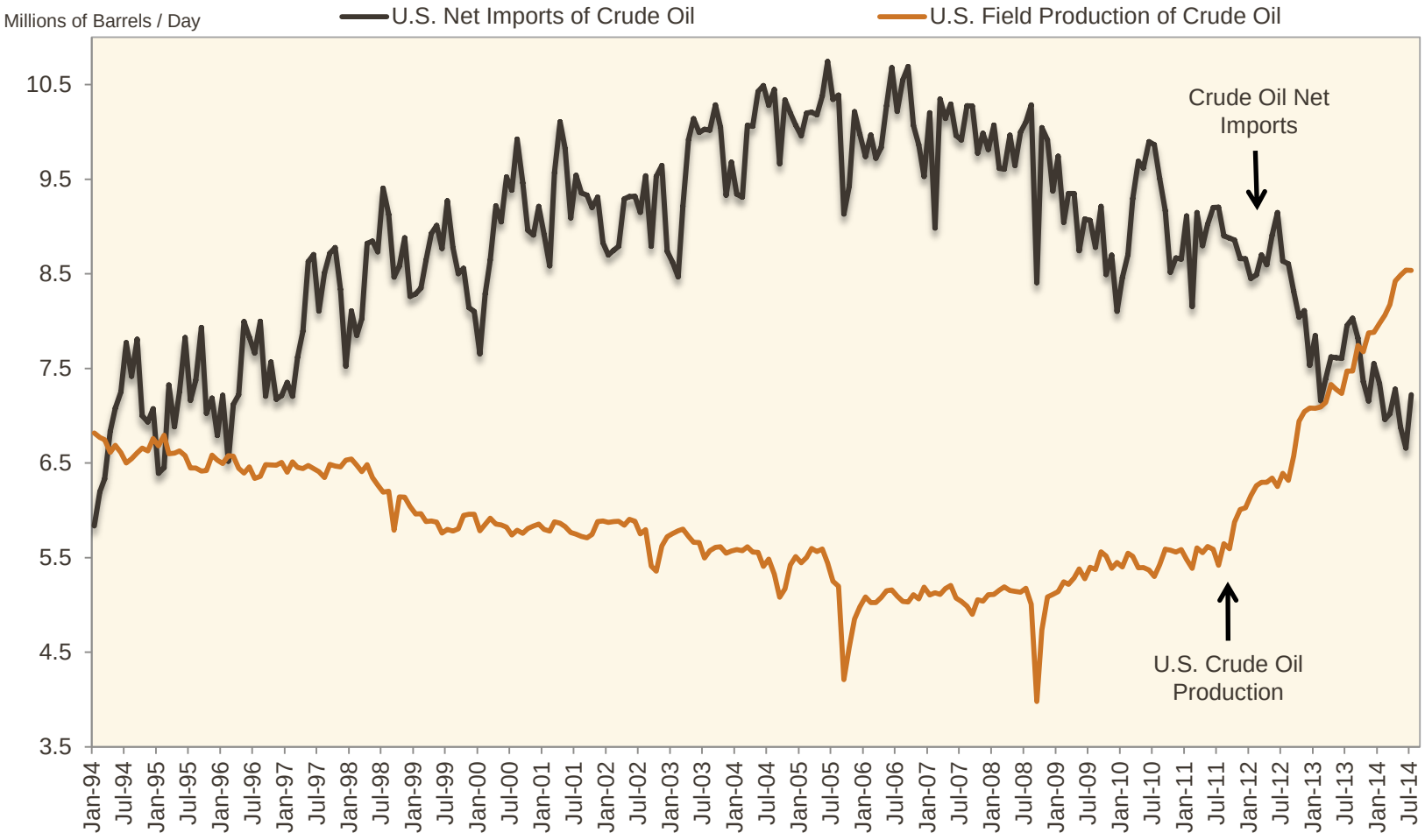
Eurozone, U.S., Japan and U.K. Industrial Production



Source: Pavilion Global Markets, Indexed to 100 in January 2005; August 2014

U.S. Energy Production Continues To Provide Tailwind

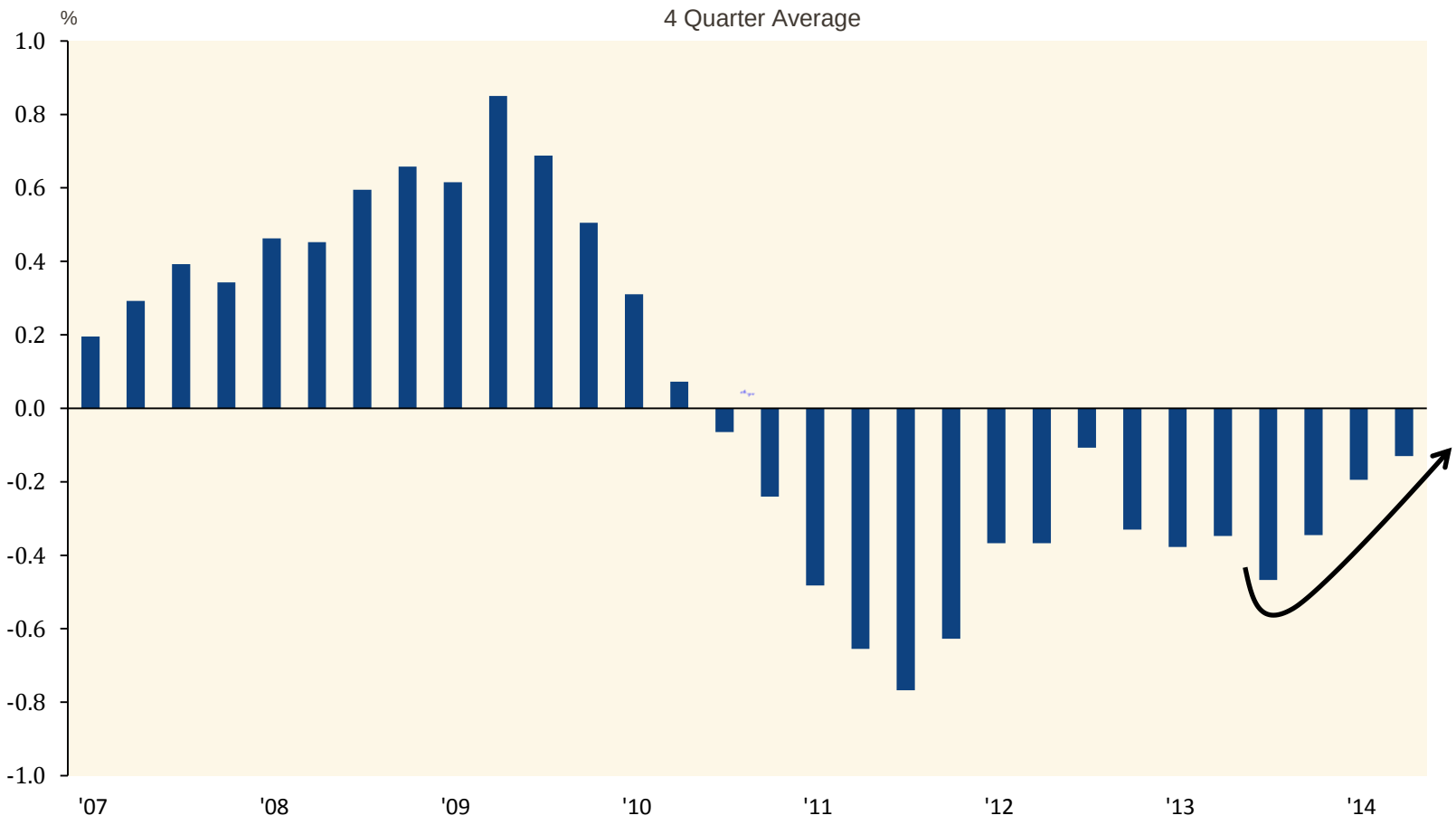
U.S. Crude Oil Net Imports & Production



Source: Strategas Research Partners; July 2014

The Public Sector No Longer A Drag On The Economy

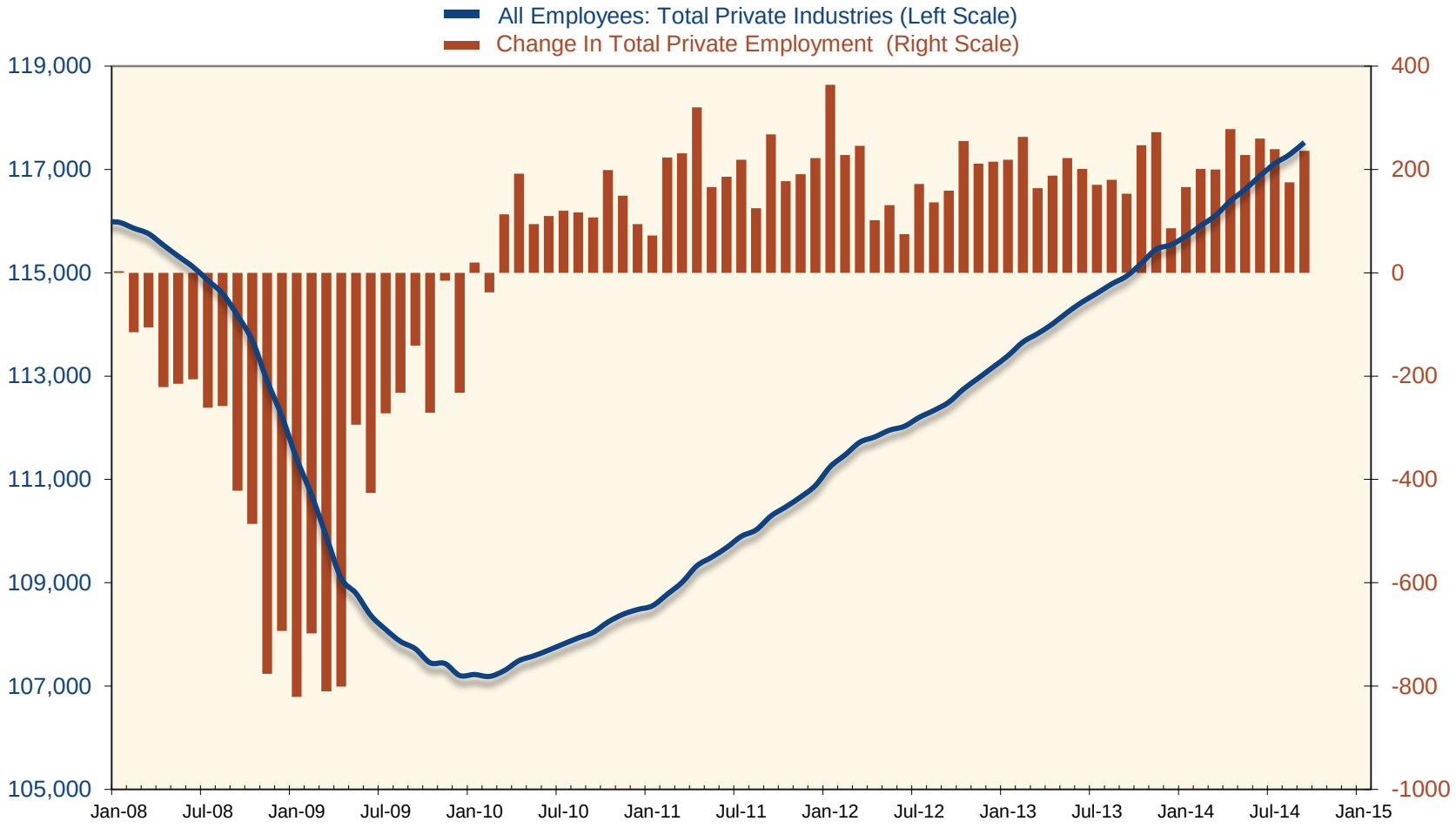
Government Contribution To Real GDP



Source: Strategas Research Partners; June 2014

Employment Has Recovered, Slowly, Past Pre-Crisis Levels

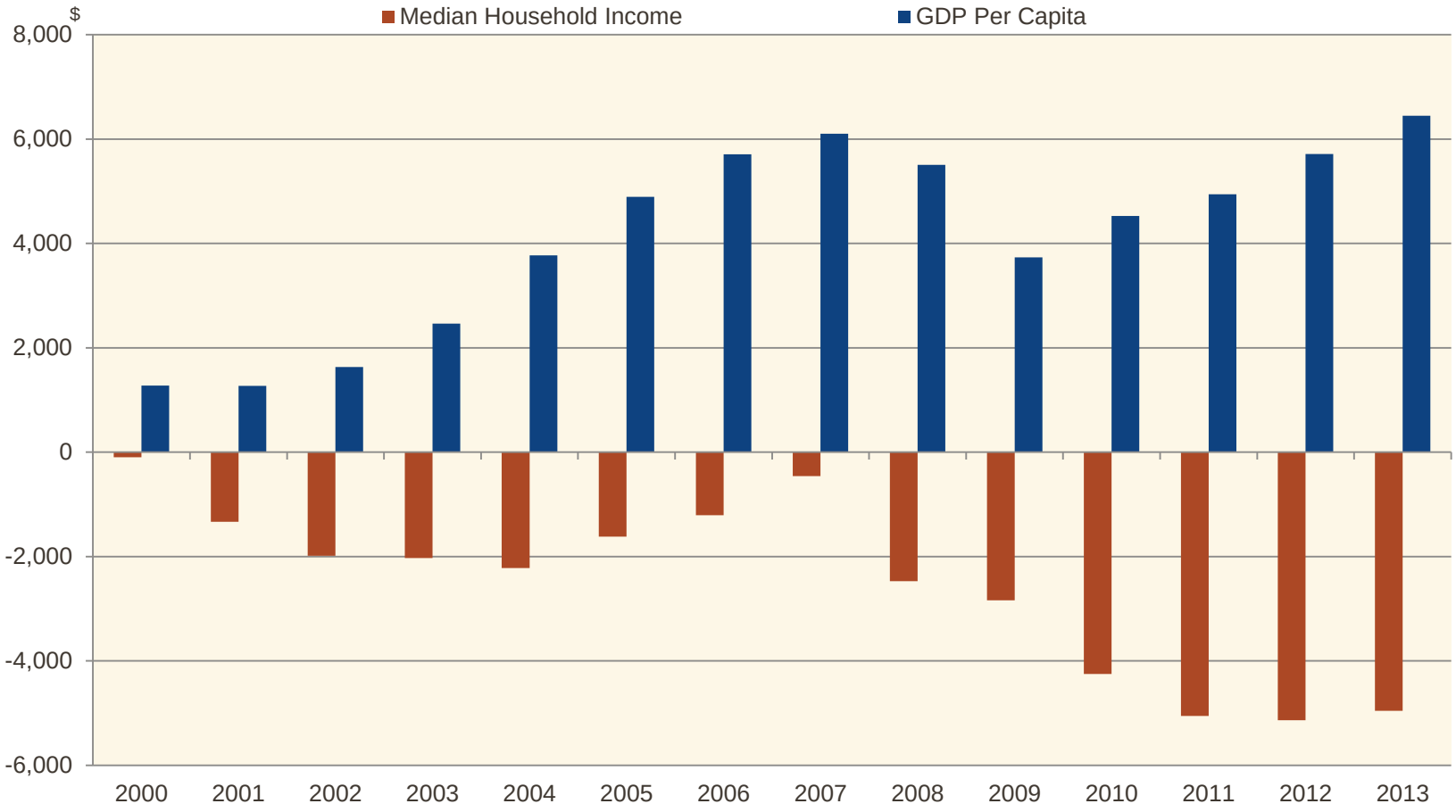
Change In Employment, All Private Employees



Source: Bureau of Labor Statistics; September 2014

Households Have Not Been Beneficiaries Of The Recovery

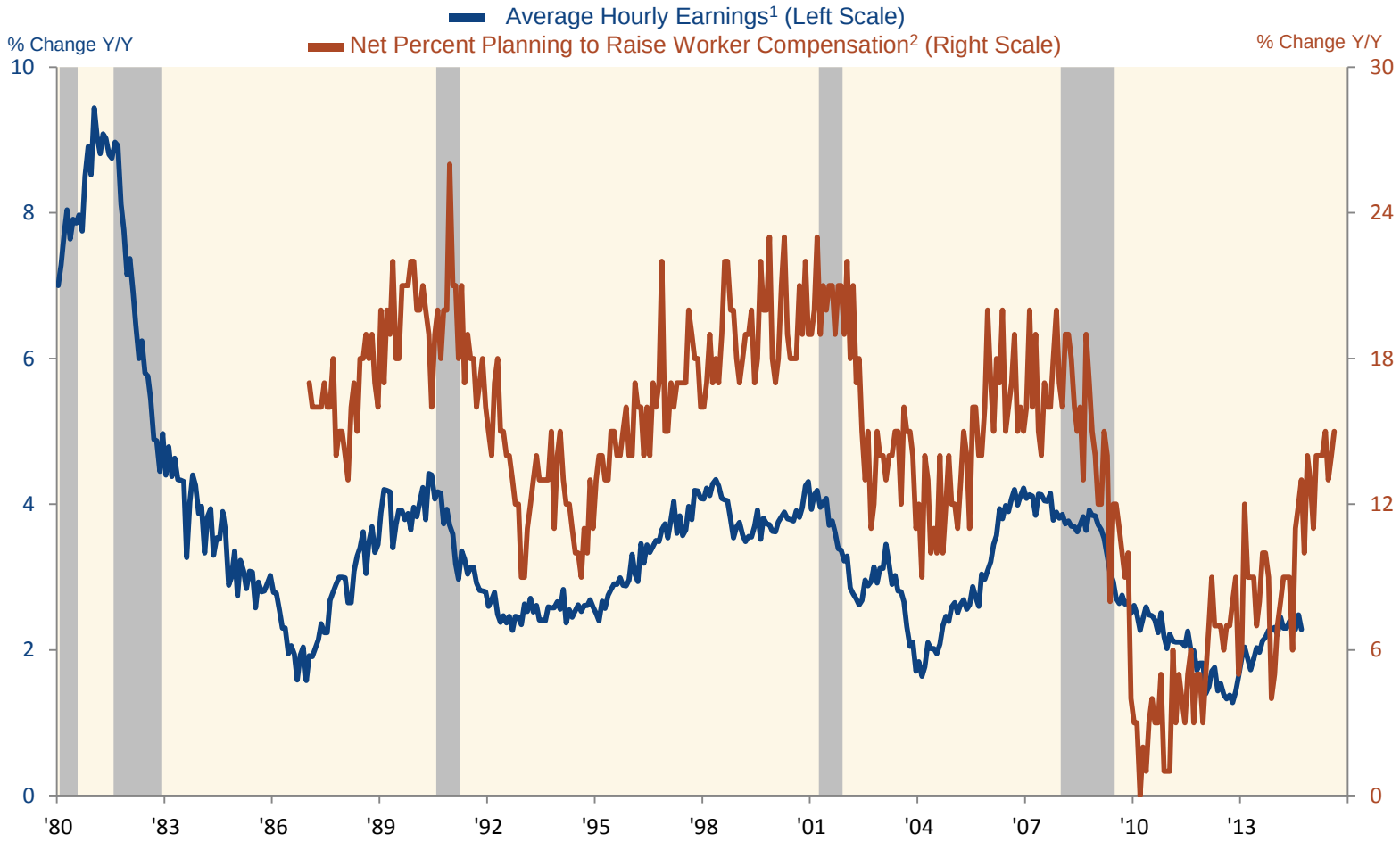
Cumulative Change In Median Household Income and GDP Per Capita



Source: FRED, January 2013

Wage Inflation May Be On The Horizon . . .

Rising Wages

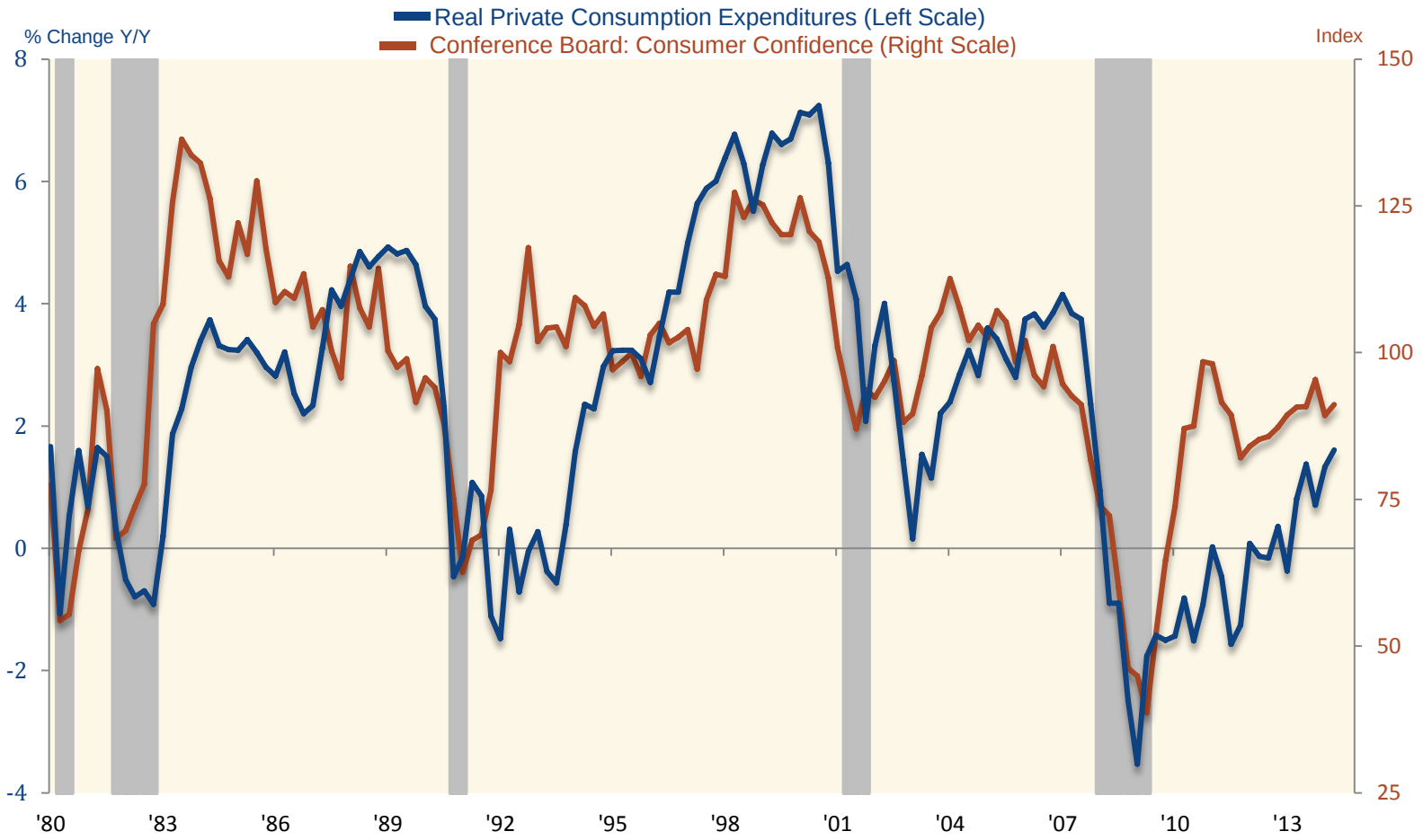


1. *Production and & Non-Supervisory: Total Private Industry*
2. *National Federation of Independent Business, 12-Mo Lead*

Source: Strategas Research Partners, Bureau of Labor Statistics; June 2014

. . . Lifting Consumer Confidence And Driving Spending

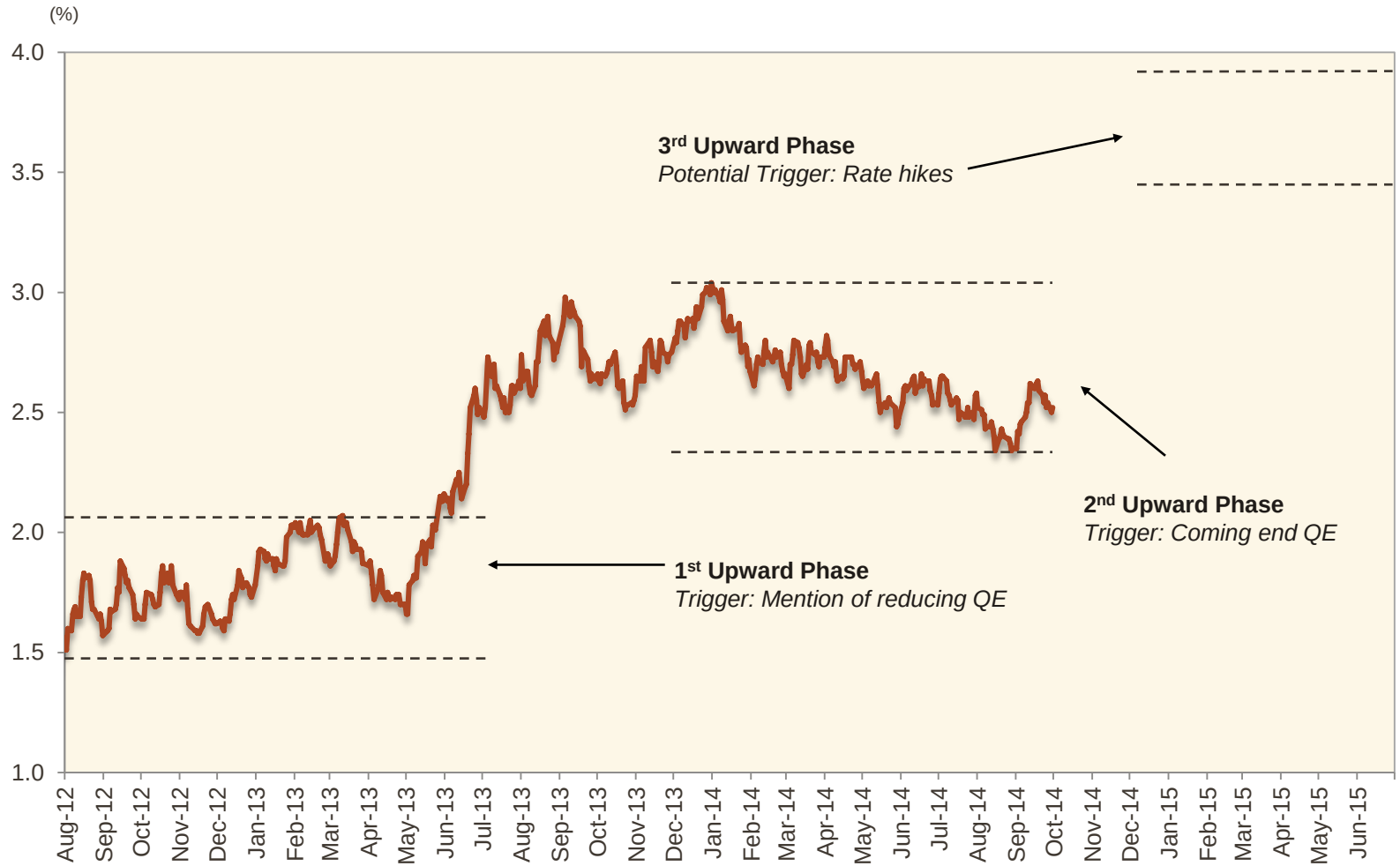
Confidence and Spending Rising



Source: Strategas Research Partners, BEA, Conference Board, Consumer Confidence Indexed to 100 January1, 1985; June 2014

Should Rates Rise, They Can Do So Quickly

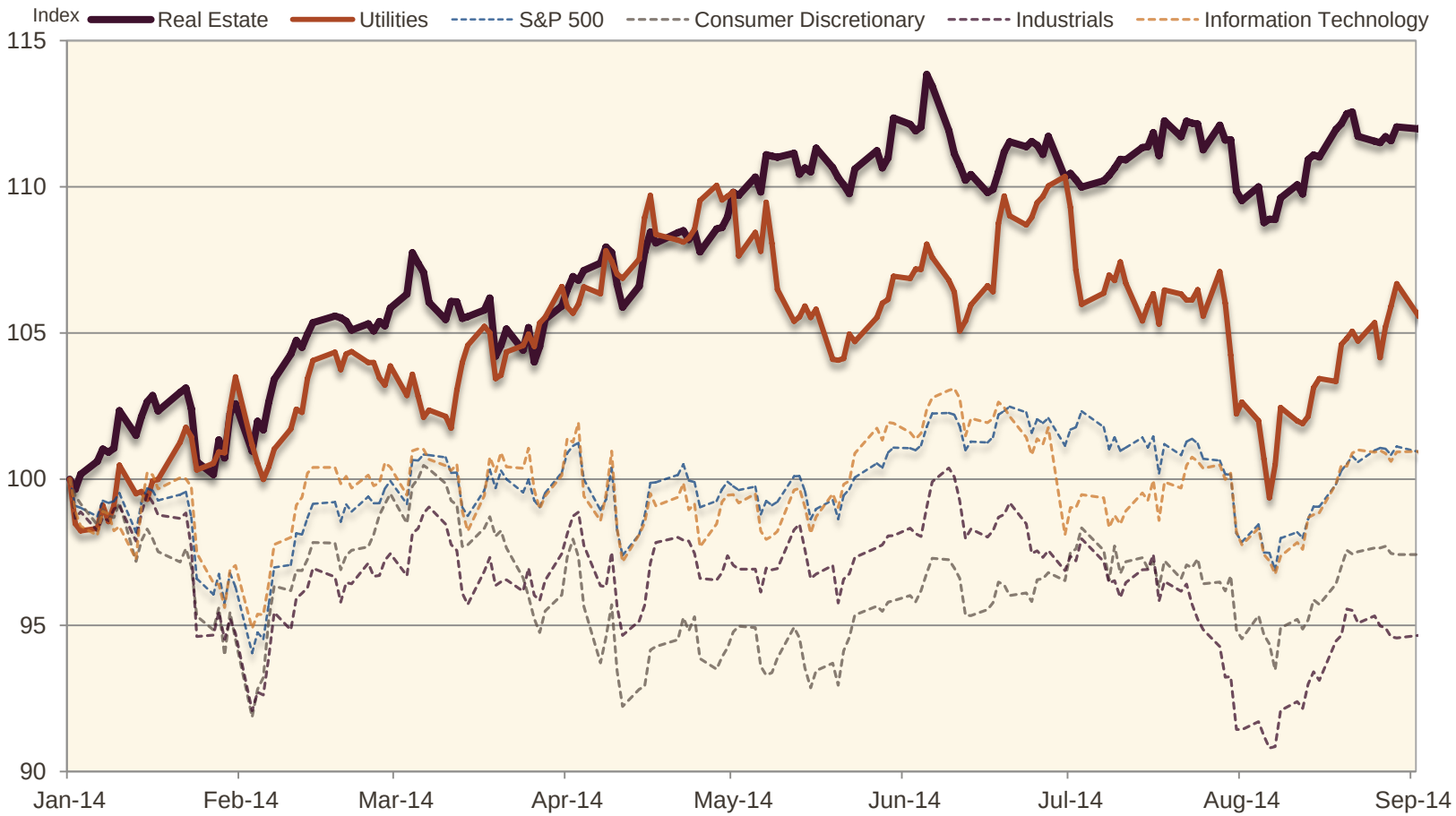
Sequence Of The Tightening Thresholds On 10-year U.S. Yields



Source: Exane BNP Paribas, U.S. Treasury; October 2014

QE Making U.S. Bond Proxies Expensive

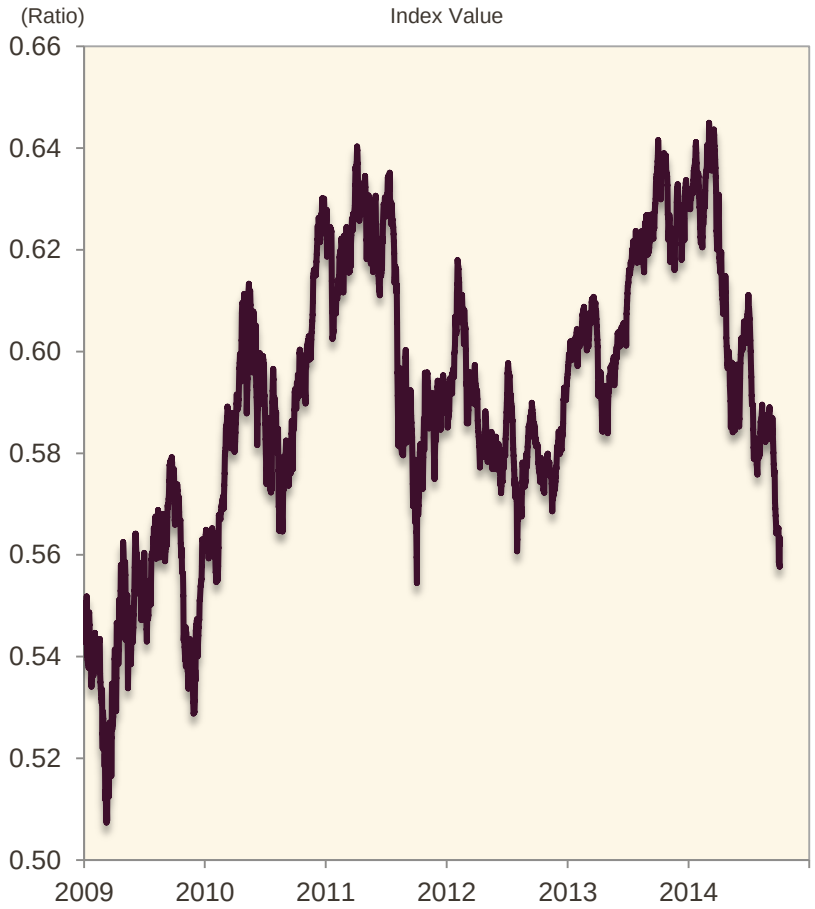
P/E Expansion: Bond Proxies vs. Cyclical Sectors YTD 2014



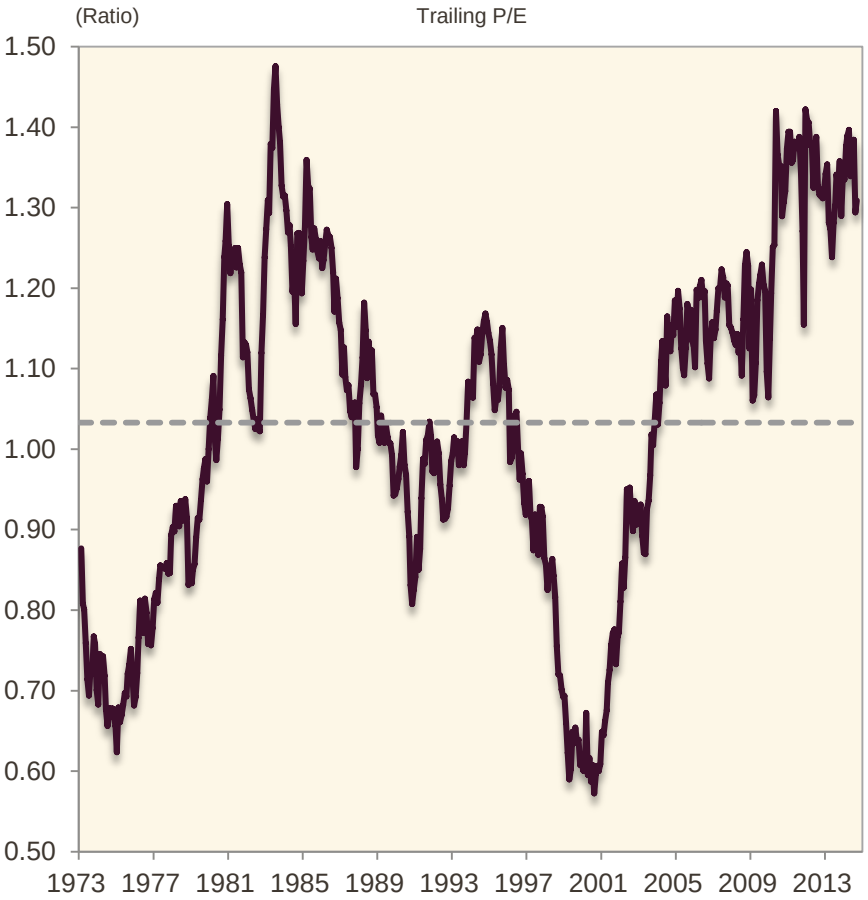
Source: S&P, FactSet, Epoch Investment Partners, Indexed to 100 January 1, 2014; September 2014

Change In Leadership: Small Caps Struggling

Ratio Of Small Caps Relative To Large Caps



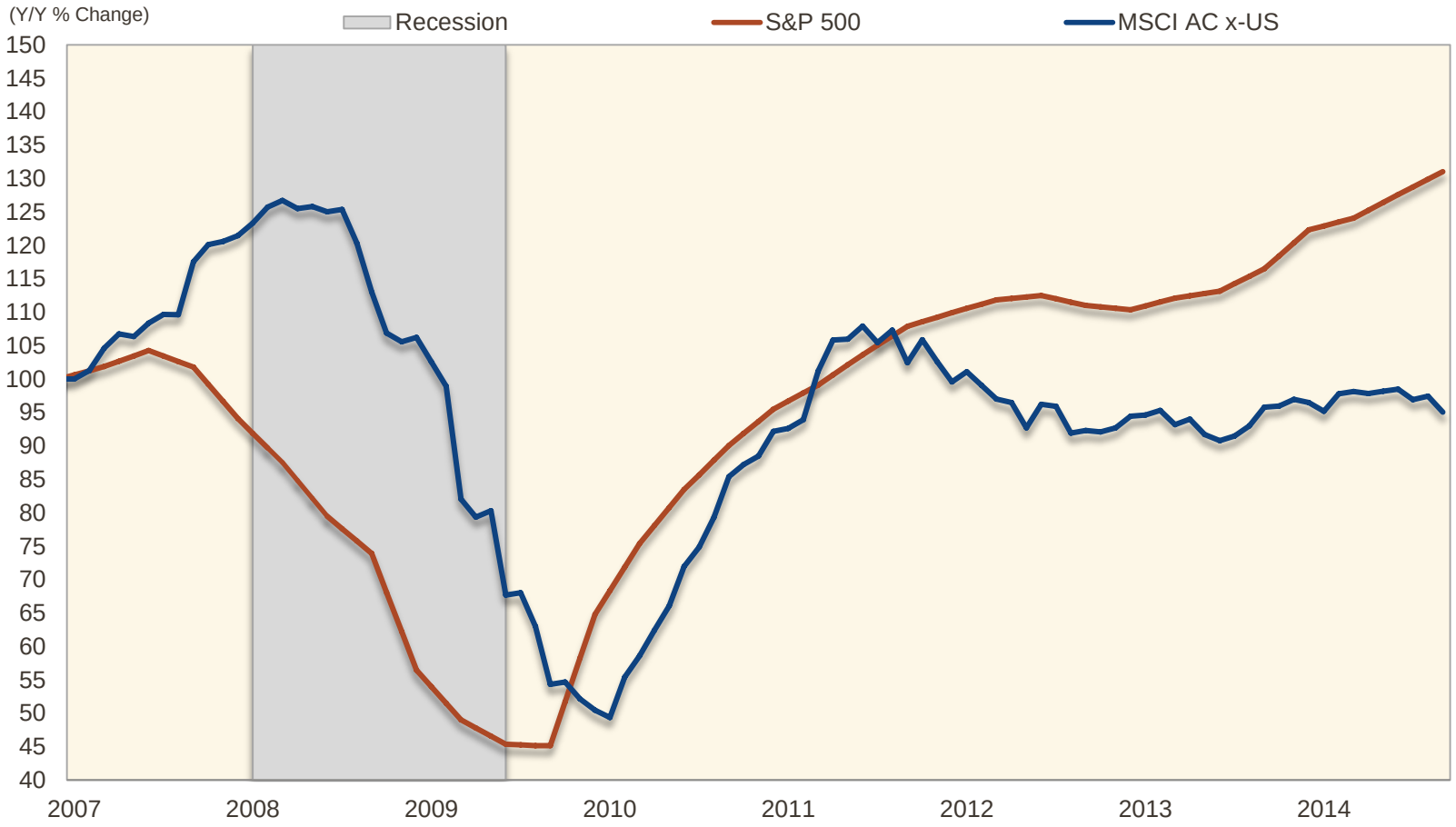
Source: Pavilion Global Markets (Data via Bloomberg), Russell 2000 and S&P 500; September 2014



Source: Pavilion Global Markets (Data via Datastream), S&P 600 and S&P 500; September 2014

No EPS Growth Outside The U.S.

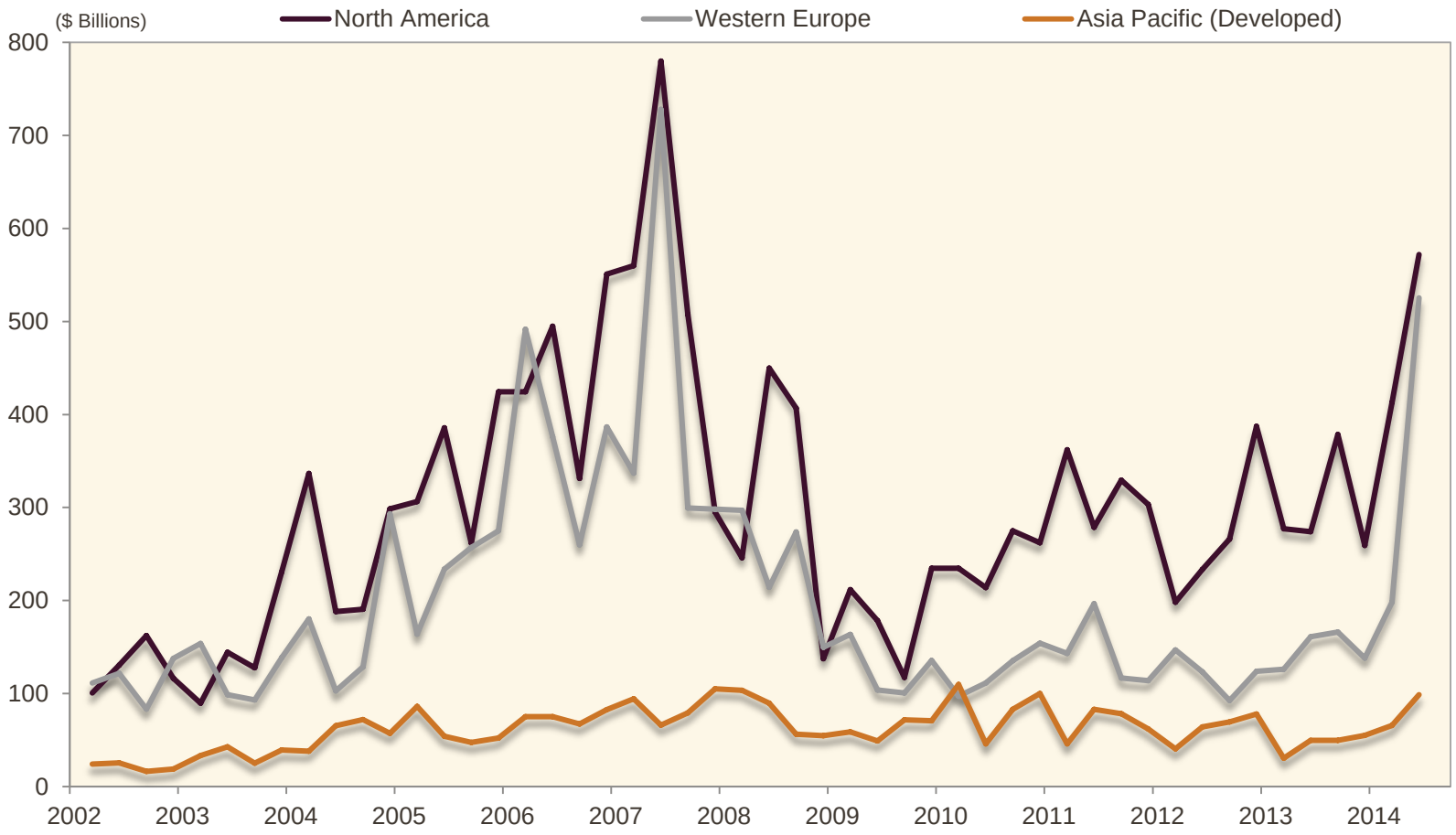
Trailing EPS



Note: Rolling 12-month EPS, Operating Earnings; (Indexed to 1 January 2007)
Source: MSCI, S&P, NBER, Minack Advisors, Epoch Investment Partners; September 2014

Jump In M&A Activity In Western Europe and North America

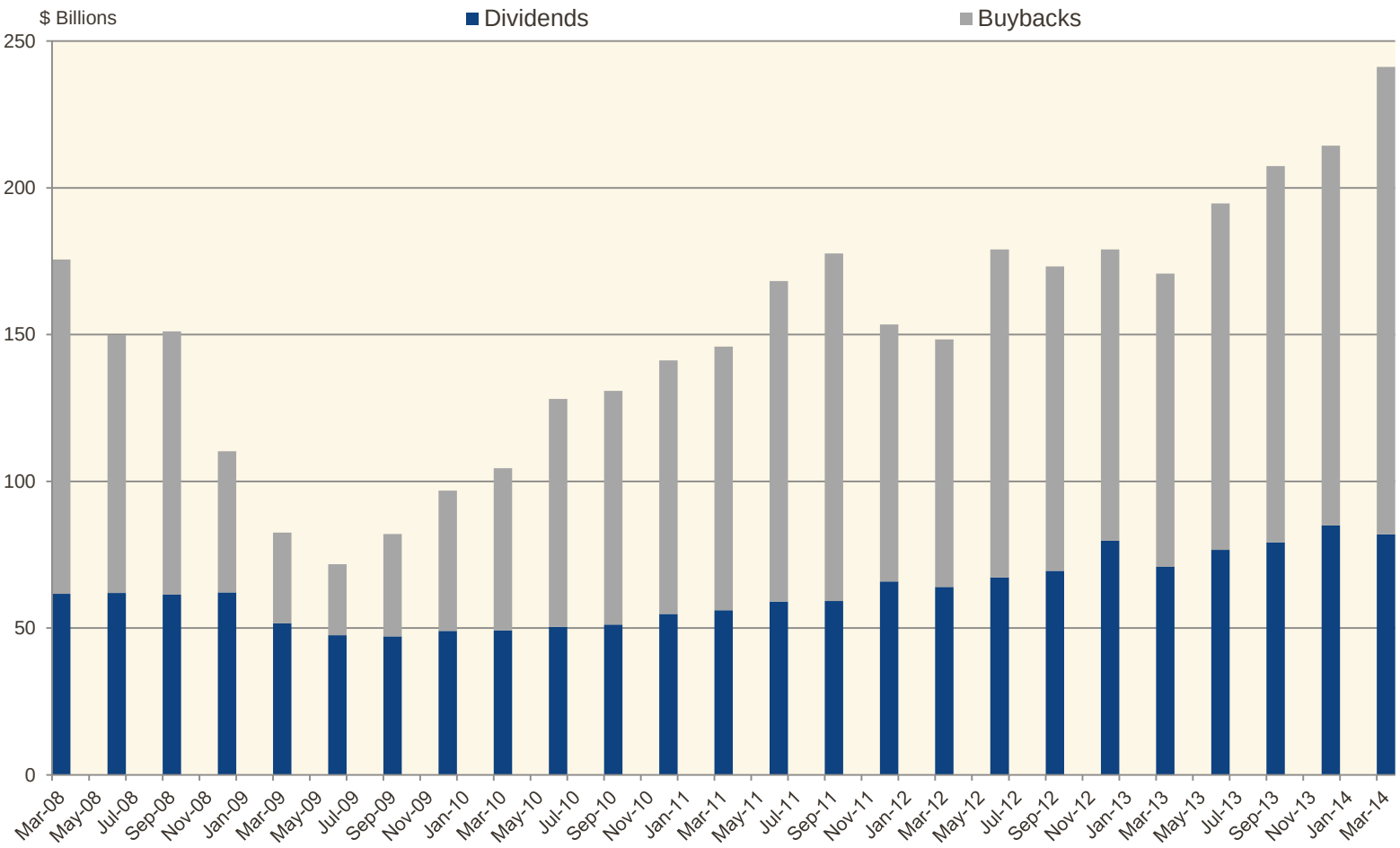
Volume Of Announced M&A Deals By Region



Source: Pavilion Global Markets (Data via Bloomberg), 2Q 2014 at Pro-rata; September 2014

Buybacks And Dividends Continue To Be A Favored Use Of Cash

S&P 500 Quarterly Buybacks and Dividends



Source: Standard and Poors, Epoch Investment Partners; March 2014

Summary

Global Growth Expectations

- Global secular stagnation a significant concern
- Geopolitical risks an increasing concern and damaging growth expectations

Effects of Monetary Policy

- Central banks at different stages in policy cycle
- Growth still not self-sustaining in several regions

Eurozone Weakness

- Deflation is a threat in Europe
- Growth turning negative

Asian Policy Experiments

- Jury still out on Abenomics
- China growth is weakening

U.S. Market Environment

- U.S. economy continues to recover slowly
- Beginning to see a change in market leadership

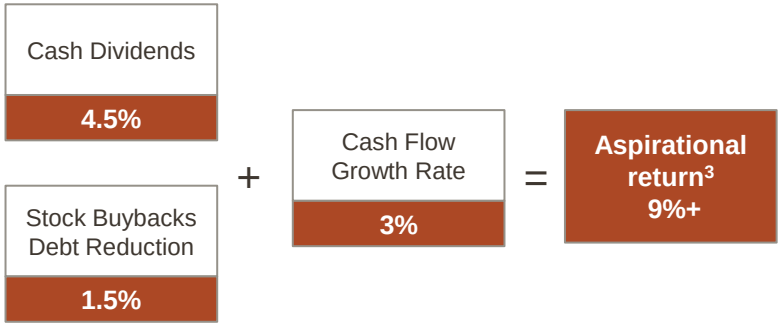
As of September 30, 2014

Appendix

Our Investment Process – Global Equity Shareholder Yield
Market Linkages
Country Allocation – Global Choice
Client Relationship Management
Biographies
Disclosures and Fees

Global Equity Shareholder Yield: Overview

- Global portfolio designed to capture "Shareholder Yield":



- Unique risk management controls
- Complements other global equity strategies

Annualized Returns[1,2] *(As of September 30, 2014)*	
Global Equity Shareholder Yield	9.1%
MSCI World Index (Net)	5.7%

Risk Return Metrics - Since Inception[1,2] *(As of September 30, 2014)*		
	EPOCH	**MSCI World Index (Net)**
Standard Deviation	13.3	16.8
Sharpe Ratio	0.59	0.26
		EPOCH vs. Index
Information Ratio		0.58
Alpha		4.51
Beta		0.75
R^2		0.90

1 *Annualized returns are presented gross-of-fees.*
2 *Inception date is December 31, 2005. Performance for the most recent quarter is preliminary and subject to change. The risk statistics are shown as supplemental information only and supplement the Composite presentation which is located within the Disclosure section of the presentation.*
3 *The return targets included in this presentation are not intended as, and must not be regarded as, a representation, warranty or prediction that any client will achieve any particular rate of return over any particular time period or that any client will not incur losses. Although Epoch believes, based on these factors, that the referenced return targets are reasonable, return targets are subject to inherent limitations including, without limitation, the fact they cannot take into account the impact on future trading and investment decisions of future economic events.*

Global Equity Shareholder Yield: Investment Team

Research

Fundamental Analysis

Bill Booth (18)
Matthew Chan (15)
Eric Citerne (23)
Justin Howell (12)
Michael Jin (20)
Josepha Kaufman (19)
Gary Low (15)
John Morgan (20)
Janet Navon (33)
Alex Orozco (15)
David Pearl (30)
Bill Priest (49)
John Reddan (29)
Stephen Rose (14)
Eric Sappenfield (29)
David Siino (16)
Tim Sledge (20)
Jeffrey Smith (23)
John Tobin (33)
Jérôme Van Der Ghinst (11)
Kera Van Valen (13)
Chris Wolters (24)

Client Portfolio Managers

Gretchen Amidon (15)
Nuvan Athukorala (26)
John Miller (26)
Rick Vandale (30)
Richard Watt (32)

Quantitative Analysis & Risk Management

Mike Welhoelter (28)
Matt Herman (7)
Ken Hightower (17)
Dave Pratter (9)
Lilian Quah (11)
Jason Root (17)

Macro Analysis

Investment Policy Group

Bill Priest (49)
Bill Booth (18)
Eric Citerne (23)
Andrea Tasker Glogoff (20)
Kenneth Hightower (17)
Janet Navon (33)
Tom Pernice (33)
David Pearl (30)
John Reddan (29)
Eric Sappenfield (29)
John Tobin (33)
Richard Watt (32)
Mike Welhoelter (28)

Trading

Mark Strauss (28)
Doug Van Gorp (16)

Global Equity Shareholder Yield Team

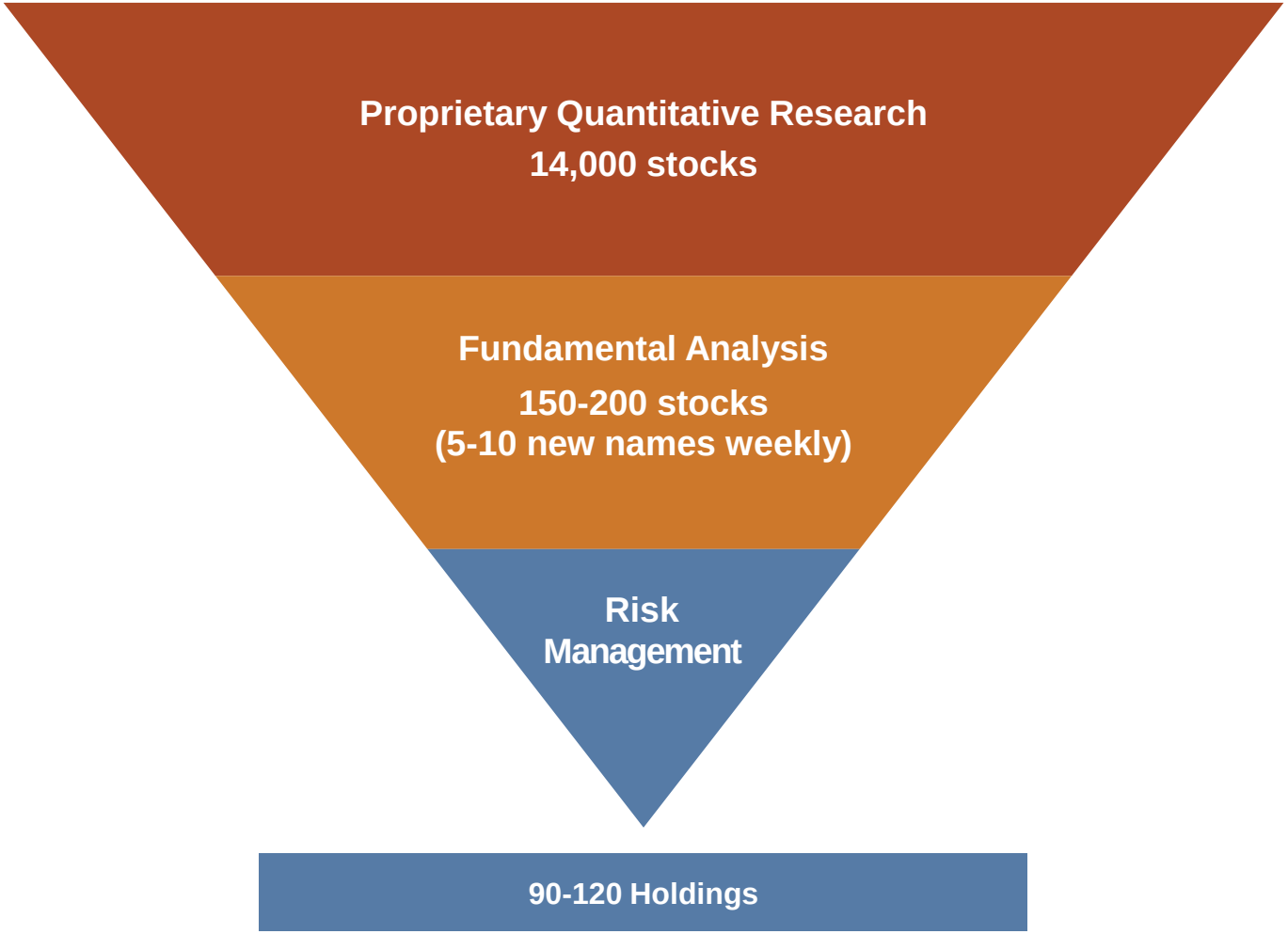
Eric Sappenfield (29)
John Tobin (33)
Kera Van Valen (13)
Mike Welhoelter (28)
Bill Priest (49)
Michael Jin (20)
Alex Orozco (15)
Gretchen Amidon (15)
Richard Watt (32)

Portfolio Managers

Eric Sappenfield (29)
John Tobin (33)
Kera Van Valen (13)
Mike Welhoelter (28)
Bill Priest (49)

As of September 30, 2014
Numbers in parentheses denotes years of experience.

Investment Process: Overview



Investment Process: Proprietary Quantitative Research

Key Research Metrics

- High current income – yield
- Cash from operations exceeds dividends (or cash returned) over trailing 3 years
- Growth in cash flow from operations over the last 5 years
- No dividend cancellations in available financial history
- Market capitalization > $500M with sufficient trading liquidity

Results in 5-10 new investment candidates / week

Investment Process: Portfolio Construction and Risk Management

Portfolio Construction – Risk Control

- Minimize stock specific risks while capturing portfolio objectives
  - Position size: 0.5% - 2.5%
  - Maximum income contribution per security: 3.0%
  - Maximum contribution to cash-flow growth per security: 5.0%
- Inverse risk weighting
- Barra risk model measures factor exposures
- Liquidity considerations

Diversified Portfolio Created

Global Equity Shareholder Yield (90-120)

Ongoing Stock Evaluation

Sell Discipline Reflects:

- Risk to the dividend policy
- Changes in fundamentals
- Alternative choices with a better risk-reward outcome

Investment Process: Fundamental Bottom-Up Analysis

Portfolio Holding Example: Dow Chemical Company

A leading chemical producer serving diverse end-user industries around the world

Products

Agriculture

Electronics

Plastic Packaging

Construction

Strong Revenue Generation

$57.1Bn.

- 64% of revenue is from outside of North America.
- Highly diversified product portfolio including a large Agricultural Sciences segment producing crop protection chemicals and plant biotechnology products.

Sustainable Cash Flow

- Steady improvement driven by modest revenue growth, significant cost saving steps that drive margin expansion and more efficient working capital management.
- Low-cost advantage in ethylene based on feedstock derived from natural gas – beneficiary of shale gas revolution in North America.
- Supplemented with proceeds from asset divestitures as portfolio of businesses is optimized.

Disciplined Capital Allocation

Reinvest for Capital Growth

Current investment plan:

- Invests above maintenance requirements to fund multiple high ROC expansion projects.
- Growth capex includes funding for new facilities for: on-purpose propylene, Sadara JV in Saudi Arabia and new ethylene cracker on U.S. Gulf Coast.

Return Capital to Shareholders

Policies for announced shareholder yield:

- Dividend paid without interruption since 1912.
- Share buybacks have increased materially and should continue.
- Debt reduced significantly in recent years and is now at management's target level.

Source: Epoch Investment Partners and Dow Chemical Company reports, 2013.
Information about specific companies or securities including whether they are profitable or not, is provided as a means of illustrating our investment thesis. Please see our disclosure located on the cover page of this presentation.

Global Equity Shareholder Yield: Top Ten Holdings

As of September 30, 2014

Company Name	Representative Account Weight (%)	Dividend Yield (%)	Country	Sector
Altria Group, Inc.	2.0	4.3	United States	Consumer Staples
Imperial Tobacco Group PLC	1.9	4.5	United Kingdom	Consumer Staples
National Grid plc	1.8	4.7	United Kingdom	Utilities
BCE Inc.	1.8	5.1	Canada	Telecommunication Services
Total SA	1.8	4.7	France	Energy
Lorillard, Inc.	1.8	4.0	United States	Consumer Staples
Verizon Communications Inc.	1.7	4.2	United States	Telecommunication Services
Swisscom AG	1.7	4.1	Switzerland	Telecommunication Services
Reynolds American Inc.	1.6	4.5	United States	Consumer Staples
Duke Energy Corporation	1.6	4.2	United States	Utilities
Total	**17.8**			

FactSet Research Systems, Inc.; Epoch Investment Partners, Inc.; MSCI Inc. The data shown above is of a representative account and such data may vary for each client in the strategy due to market conditions, client guidelines and diversity of portfolio holdings. The data is unaudited and may change at any time. The data is supplemental to the composite presentation, is shown for informational purposes only, and is not indicative of future portfolio characteristics or returns.
Totals may not add due to rounding.

Global Equity Shareholder Yield: Portfolio Weights and Characteristics

As of September 30, 2014

Sector	Weight (%)
Utilities	16.9
Telecommunication Services	14.7
Consumer Staples	14.6
Financials	11.8
Energy	9.0
Health Care	7.4
Industrials	6.9
Consumer Discretionary	6.2
Materials	5.8
Information Technology	3.4
Cash	3.4
Total	100.0

Country	Weight (%)
United States	43.6
United Kingdom	19.9
France	8.6
Germany	5.8
Switzerland	4.5
Canada	4.0
Australia	3.4
Norway	3.0
Italy	1.6
Sweden	1.0
Philippines	0.6
Netherlands	0.6
Cash	3.4
Total	100.0

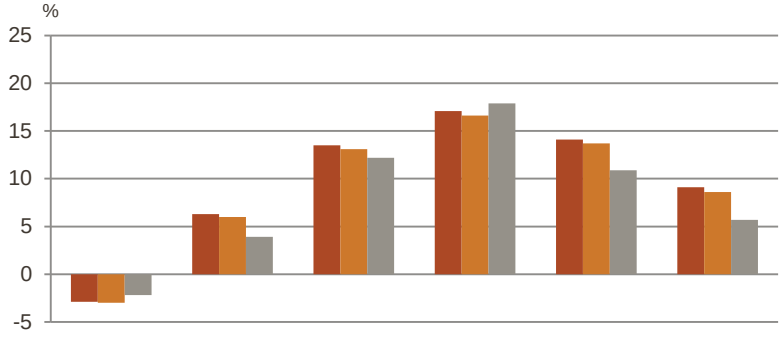
Characteristics	Representative Account
Dividend Yield (%)	4.2
Enterprise Value to EBITDA (x)	8.7
Market Cap (Wt. Avg.)	71,059
Market Cap (Wt. Median)	40,231
Predicted Beta	0.88
12 Month Turnover	13%
Number of Equity Positions	95

Source: FactSet Research Systems, Inc.; Epoch Investment Partners, Inc.; MSCI Inc. The data shown above is of a representative account and such data may vary for each client in the strategy due to market conditions, client guidelines and diversity of portfolio holdings. The data is unaudited and may change at any time. The data is supplemental to the composite presentation, is shown for informational purposes only, and is not indicative of future portfolio characteristics or returns.

Global Equity Shareholder Yield: Composite Results

As of September 30, 2014

Returns



	QTD	YTD	1 Year	3 Year	5 Year	Annualized Since Inception[1]
EPOCH (Gross)	**-2.9**	**6.3**	**13.5**	**17.1**	**14.1**	**9.1**
EPOCH (Net)	**-3.0**	**6.0**	**13.1**	**16.6**	**13.7**	**8.6**
MSCI World Index (Net)	-2.2	3.9	12.2	17.9	10.9	5.7

Risk Return Metrics - Since Inception[1,2]

	EPOCH	MSCI World Index (Net)
Standard Deviation	13.3	16.8
Sharpe Ratio	0.59	0.26
		EPOCH vs. Index
Information Ratio		0.58
Alpha		4.51
Beta		0.75
R^2		0.90

	2013	2012	2011	2010	2009	2008	2007	2006
EPOCH Gross Return	**25.2**	**11.5**	**7.1**	**13.2**	**25.2**	**-31.5**	**9.9**	**27.0**
EPOCH Net Return	**24.7**	**11.1**	**6.7**	**12.8**	**24.7**	**-31.8**	**9.0**	**26.0**
MSCI World Index (Net)	26.7	15.8	-5.5	11.8	30.0	-40.7	9.0	20.1

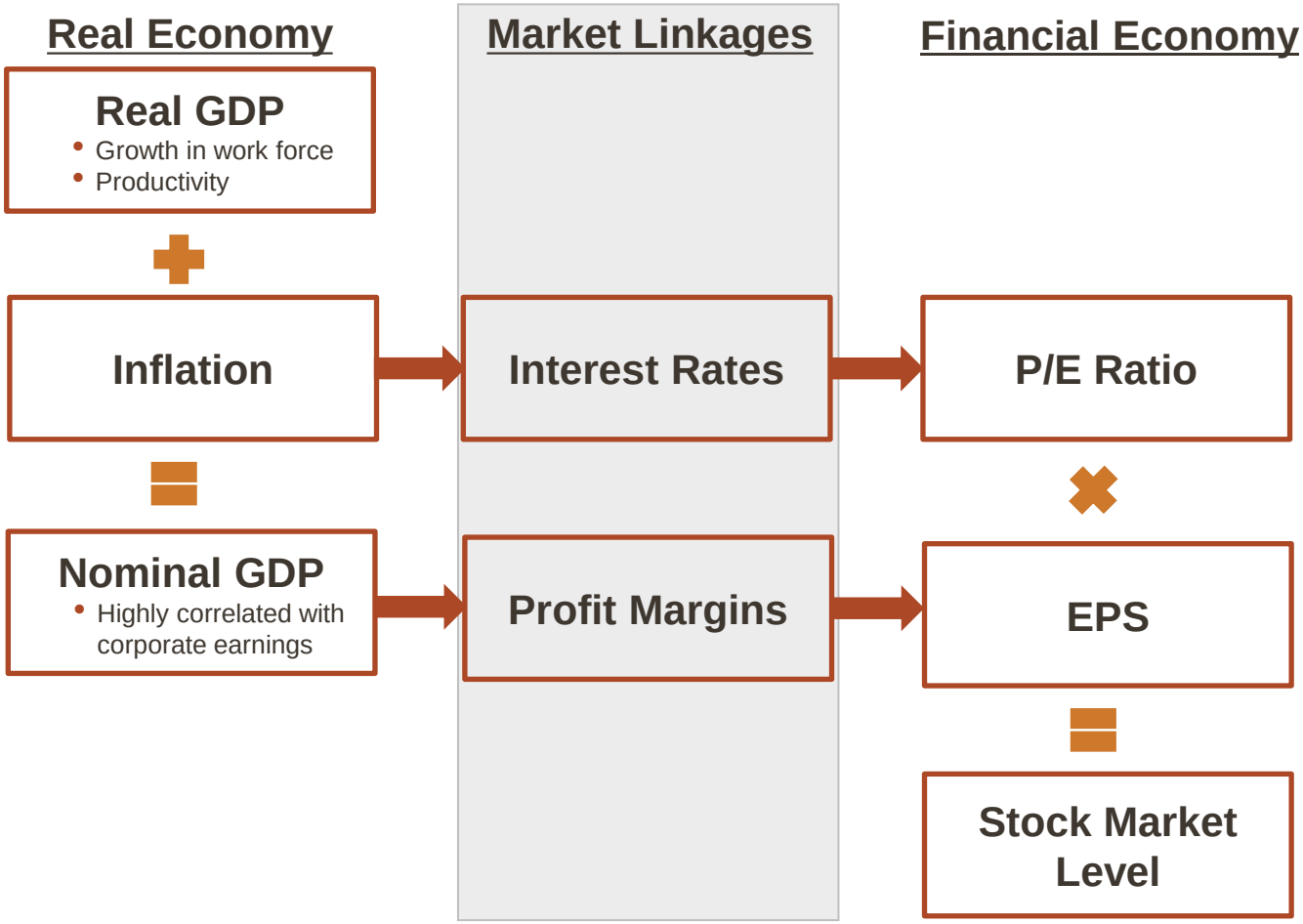
1 Inception date is December 31, 2005. Performance for the most recent quarter is preliminary and subject to change.
2 The risk statistics are shown as supplemental information only and supplement the Composite presentation which is located within the Disclosure section of the presentation. Past performance is no guarantee of future results.

Global Equity Shareholder Yield: Holdings have a History of Raising Dividends*

- 2008: 62 companies increased their dividends by 13.7% on average
- 2009: 69 companies increased their dividends by 11.5% on average
- 2010: 72 companies increased their dividends by 11.3% on average
- 2011: 88 companies increased their dividends by 11.5% on average
- 2012: 82 companies increased their dividends by 8.0% on average
- 2013: 73 companies increased their dividends by 6.7% on average
- YTD 2014: 74 companies increased their dividends by 5.9% on average

**Several companies increased their dividends more than once in each year.*
Source: Epoch Investment Partners, Inc. The data shown above is for a representative account. Such data may vary for each client in the strategy due to market conditions, client guidelines and diversity of portfolio holdings. The data is unaudited and may change at any time. The data is supplemental to the composite presentation, is shown for informational purposes only, and is not indicative of future portfolio characteristics or returns.

Financial Economy linked to the Real Economy



Source: Crestmont Research; Epoch Investment Partners

Country Allocation: As of September 30, 2014

Country	Weight (%)	MSCI World Index Weight (%)
United States	63.3	56.4
France	10.0	3.9
United Kingdom	7.4	8.4
Japan	4.6	8.3
Belgium	4.1	0.5
Israel	3.2	0.2
Canada	--	4.2
Switzerland	--	3.6
Germany	--	3.5
Australia	--	3.0
Spain	--	1.4
Sweden	--	1.2
Hong Kong	--	1.1
Netherlands	--	1.1
Italy	--	1.0
Denmark	--	0.6
Singapore	--	0.6
Finland	--	0.3
Norway	--	0.3
Ireland	--	0.1
Austria	--	0.1
Portugal	--	0.1
New Zealand	--	0.1
Cash	7.5	--
Total	**100.0**	**100.0**

Source: FactSet Research Systems, Inc.; Epoch Investment Partners, Inc.; MSCI Inc. The data shown above is of a representative account and such data may vary for each client in the strategy due to market conditions, client guidelines and diversity of portfolio holdings. The data is unaudited and may change at any time. The data is supplemental to the composite presentation, is shown for informational purposes only, and is not indicative of future portfolio characteristics or returns.

Client Relationship Management

Central Point of Contact

Separate team attentive to all aspects of the client experience.

- Experienced Relationship Manager leads all client efforts and interactions
- Advocate client's best interests to Epoch
- Servicing team includes Client Service Representative, Client Portfolio Manager and Portfolio Manager

Client First Focus

Robust infrastructure attune to client needs.

- Epoch is designed for the benefit of clients
- Build interactive and constructive relationships
- Hire ahead of client needs, dedicated to delivering and strengthening superior resources

Proactive Communication

Time with our clients is time well spent.

- Commitment to transparency and accessibility
- Thoughtful and responsive to clients and consultants
- Regular investment discussions, including quarterly calls and formal reviews

Client Relationship Management

Sharing the Epoch Perspective

Providing timely and thoughtful perspectives on investment issues – and the broader economic context that drives financial markets – has always been a hallmark of Epoch.

- Unwavering dedication to thought leadership and intellectual curiosity
- Relevant and current financial topics addressed in investment commentaries, quick notes, white papers, videos and webinars
- Epoch Insights: www.eipny.com

Reporting Standards

Delivering key portfolio information on a regular basis is a commitment Epoch makes to each client.

- Detailed quarterly reporting, containing performance analysis, attribution, holdings and commentary
- Investment review meetings and quarterly publications, including CIO's Investment Update
- Annual formal relationship review; informal meetings throughout

Epoch Executive Management Team Biographies

William W. Priest, CFA – ***Chief Executive Officer, Co–Chief Investment Officer and Portfolio Manager***

Bill is Chief Executive Officer and Co-Chief Investment Officer of Epoch Investment Partners. He is a portfolio manager for Epoch's global equity investment strategies and leads the Investment Policy Group, a forum for analyzing broader secular and cyclical trends that Epoch believes will influence investment opportunities. Prior to co-founding Epoch in 2004 with David Pearl, Tim Taussig and Phil Clark, Bill was a Co-Managing Partner and portfolio manager at Steinberg Priest & Sloane Capital Management, LLC for three years. Before joining Steinberg Priest, he was a member of the Global Executive Committee of Credit Suisse Asset Management ("CSAM"), Chairman and Chief Executive Officer of CSAM Americas and CEO and portfolio manager of its predecessor firm BEA Associates, which he co-founded in 1972. During his 30 year tenure at BEA and CSAM, he developed the firm into a well-recognized investment manager with over $100 billion under management. Bill is the author of several published articles and papers on investing and finance, including the books, *The Financial Reality of Pension Funding Under ERISA* and the more recent, *Free Cash Flow and Shareholder Yield: New Priorities for the Global Investor* which details the underpinnings of our investment approach, published by John Wiley & Sons. He holds the Chartered Financial Analyst designation, is a former Certified Public Accountant and a graduate of Duke University and the University of Pennsylvania Wharton Graduate School of Business. He is a Director of InfraRedX and a member of the Council on Foreign Relations.

David N. Pearl – ***Executive Vice President, Co–Chief Investment Officer and Portfolio Manager***

David is Executive Vice President and Co-Chief Investment Officer of Epoch Investment Partners. He is a portfolio manager for Epoch's U.S. investment strategies. Prior to co-founding Epoch in 2004 with Bill Priest, Tim Taussig and Phil Clark, David was a Managing Director and portfolio manager at Steinberg Priest & Sloane Capital Management, LLC where he was responsible for both institutional and private client assets. Previously, he held senior portfolio management positions at ING Furman Selz Asset Management and Citibank Global Asset Management where he managed mutual funds and institutional accounts. Prior to Citibank, David was an officer and senior analyst of BEA Associates, predecessor to Credit Suisse Asset Management – Americas. David holds a BS in Mechanical Engineering from the University of Pennsylvania and an MBA from The Stanford University Graduate School of Business.

Timothy T. Taussig – ***President and Chief Operating Officer***

Tim is President and Chief Operating Officer of Epoch Investment Partners. He oversees the day-to-day activities of the Finance, Operations, Compliance and Client Relations and Marketing groups. Prior to co-founding Epoch in 2004 with Bill Priest, David Pearl and Phil Clark, Tim was Chief Operating Officer of Trident Investment Management, an investment firm managing mutual funds and hedge funds. He was responsible for the firm's business management, operations, and marketing. Prior to joining Trident, he was Managing Director and member of the Global Executive Committee for Credit Suisse Asset Management and Co-Head of Marketing for Credit Suisse Asset Management worldwide where his management responsibilities included marketing, client services and e-commerce strategy across distribution channels. Before joining Credit Suisse's predecessor firm, BEA Associates, in 1985, he was a Director of Aetna Capital Management. Tim holds a BA from Dartmouth College and has completed investment courses at University of Pennsylvania's Wharton Graduate School of Business and at New York University's Leonard N. Stern School of Business.

Adam Borak, CPA – ***Chief Financial Officer***

Adam is Chief Financial Officer of Epoch Investment Partners, responsible for all financial, accounting and fiscal management aspects of the firm's operations. Prior to joining Epoch in 2005, he was a Director of Finance at Credit Suisse Asset Management-Americas, and its predecessor firm, BEA Associates. During his seven year tenure, he was responsible for the corporate finance function of the Firm's New York office. Prior to that, he was the Chief Financial Officer of Lehman Brothers Canada, Inc. and also worked for Lehman Brothers in New York. Adam began his career with PriceWaterhouse and is a Certified Public Accountant. He holds a BS in economics from the Wharton School of Business of the University of Pennsylvania.

Epoch Investment Team Biographies

Gretchen Amidon, CFA – ***Managing Director, Global Portfolio Management***

Gretchen is a client portfolio manager for the global and non-U.S. equity strategies. Prior to joining Epoch in 2012, Gretchen spent five years with Neuberger Berman as product specialist for the global equity strategy, responsible for communicating investment policy, process and results to institutional and sub-advisory channel clients, and consultants. Prior to Neuberger, she was an analyst covering various sectors including real estate with UBS Investment Research and Prudential Financial Equity Group. Gretchen holds a BA in Psychology from the University of Massachusetts and an MBA from Suffolk University. She holds the Chartered Financial Analyst designation.

Nuvan P. Athukorala – ***Director, Global Portfolio Management***

Van is Director, Global Portfolio Management and is responsible for the design and development of investment strategies. Prior to joining Epoch, Van managed several direct and multi-manager portfolios. At AMP Capital Investors and IPAC Securities, he managed global, regional and domestic equity multi-manager portfolios. Prior to that he formulated active asset allocation and active currency strategy, and managed an active Australian REITs portfolio at GIO Asset Management and CSR Superannuation Fund. He also worked at the New South Wales Treasury Corporation where he introduced an unlisted infrastructure multi-manager portfolio. He began his career in funds management at Suncorp Investments in 1993. He holds an MBA in Finance from Georgia State University and a BA in Economics from Washington State University.

William J. Booth, CFA – ***Managing Director, Portfolio Manager and Senior Research Analyst***

Bill is the director of non-U.S. research and is a portfolio manager for our Non-U.S. Equity and Global strategies. Bill joined Epoch in 2009 from PioneerPath Capital, which is a long/short equity hedge fund where he was a consumer and retail analyst. Prior to PioneerPath, he was a senior analyst at Level Global where he focused on the consumer and industrial sectors. He also held an equity research position at Louis Dreyfus Commodities and was a credit analyst with Citigroup. Bill holds a BS in Chemical Engineering from Yale University and an MBA from New York University's Leonard N. Stern School of Business. He holds the Chartered Financial Analyst designation.

Matthew W. Chan, CFA – ***Director, Senior Research Analyst***

Matt is a senior non-U.S. equity research analyst with a primary focus on Asian equities. Prior to joining Epoch in 2011, Matt was a global equity research analyst at Neuberger Berman, where he worked on Neuberger's developed and emerging market funds. Previously, Matt was a management consultant with McKinsey & Company and a semiconductor analyst with Merrill Lynch. Prior to Merrill Lynch, Matt was an analyst in the Technology Mergers & Acquisitions group at Robertson Stephens. Matt holds an AB in Applied Mathematics and Economics from Harvard University and a Masters of Engineering Management and an MBA from Northwestern University. He holds the Chartered Financial Analyst designation.

Eric Citerne, CFA, CPA – ***Managing Director, Portfolio Manager and Senior Research Analyst***

Eric is a portfolio manager for Epoch's International Small Cap and Global Small Cap strategies. Eric joined Epoch in 2008 from Evergreen Investment Management where he served as vice president, director and senior analyst, responsible for the investment of their international small-cap and mid-cap strategies. Eric was also a vice president and analyst at Harbor Capital Management in Boston where he helped manage their international large cap portfolio. Prior to Harbor, Eric spent three years as a senior equity analyst at the Teacher Retirement System of Texas and three years as a financial analyst at the Public Utility Commission of Texas. Eric holds a BBA from University of Texas in Austin as well as an MBA from Southern Methodist University in Dallas. He holds the Chartered Financial Analyst designation and is a Certified Public Accountant.

Matthew Herman – ***Vice President, Performance Measurement and Portfolio Implementation***

Matt is a member of Epoch's Quantitative Research & Risk Management team responsible for performance measurement and portfolio implementation. Prior to joining Epoch in 2010, he worked in trade compliance at Franklin Templeton. Before that Matt worked in operations at Clay Finlay LLC where he specialized in trade processing and settlements. Matt holds a BS in Finance from Lehigh University.

Epoch Investment Team Biographies

Kenneth N. Hightower, PhD, CFA – ***Director, Quantitative Research and Risk Management***

Ken is a senior analyst on the Quantitative Research and Risk Management team. Prior to joining Epoch in 2007, he spent four years as a global equity quantitative analyst for Federated Global Investment Management. Before Federated, Ken worked for the SAS Institute as a Technical Associate for the econometrics and times series group. In addition, he taught econometrics classes at The University of North Carolina at Chapel Hill. Ken holds an AB in Mathematics and Economics and a PhD from The University of North Carolina at Chapel Hill. He holds the Chartered Financial Analyst designation.

Justin Howell, CFA – ***Director, Research Analyst***

Justin is a U.S. equity research analyst with a primary focus on the healthcare services, consumer discretionary and business services industries. Prior to joining Epoch in 2012, he spent nine years at JPMorgan Chase as a research analyst. Justin has experience in the consumer, financial services and healthcare services sectors. Previously he worked in the research department at FTN Midwest Research. Justin earned a BA in Business Administration from the University of Michigan and holds the Chartered Financial Analyst designation.

Michael Jin, CFA – ***Director, Research Analyst***

Michael is a global equity research analyst. His primary focus is on Epoch's Global and U.S. Equity Shareholder Yield strategies. Prior to joining Epoch in 2010, Michael was a Research Analyst at AllianceBernstein. Prior to Bernstein, Michael worked as a corporate finance consultant at McKinsey and a process engineer at Praxair. He received his MBA from the University of Chicago, an MS from SUNY Buffalo and Notre Dame and completed his undergraduate study at the University of Science and Technology of China. Michael holds the Chartered Financial Analyst designation.

Josepha Kaufman – ***Managing Director, Senior Research Analyst***

Josepha is a global equity senior research analyst. Prior to joining Epoch in 2010, Josepha was a senior analyst for six years for Michael Price at MFP Investors LLC. She worked as a global analyst covering primarily consumer, retail, industrials, special situations and conglomerates. Prior to MFP, she was an Associate for five years at Tanner & Co., Inc., a mergers and acquisitions boutique. Before Tanner, she was an investment banking analyst at Credit Lyonnais. Josepha received her BA from the University of Pennsylvania and MBA from Columbia University, Graduate School of Business.

Gary Low, CFA – ***Director, Research Analyst***

Gary is a non-U.S. equity research analyst. His primary focus is on Epoch's Non-U.S. Equity strategy. Prior to joining Epoch in 2012, Gary worked as a global equities energy research analyst with Vontobel in Zurich and before that as a research analyst with BlackRock covering energy, pipelines, utilities, chemicals and metals and mining. Previously he held analyst roles with Credit Suisse and Delaware Investments. Gary holds an MA from Cambridge, England in Natural Sciences and Management Studies and an MBA from the University of Pennsylvania Wharton Graduate School of Business. He holds the Chartered Financial Analyst designation.

John A. Miller – ***Director, Global and U.S. Portfolio Management***

John is a client portfolio manager for Epoch's global and U.S. equity strategies for the Canadian market. Prior to joining Epoch in 2013, John spent five years as a regional vice president with TD Wealth Private Investment Counsel where he lead a team of thirteen portfolio managers servicing high-net-worth individuals, families, trusts and estates. Prior to joining TD in 2008, John worked for AIC Limited (now owned by Manulife) as a senior vice president as part of the sales and marketing team. During his 11 years at AIC Limited, John was also a senior investment analyst and portfolio manager for their balanced and the U.S. value funds. From 1990 – 1996, John worked for Roynat Capital as an investment analyst. He has a Bachelor of Commerce from The Sprott School of Business at Carleton University and has been involved in the investment industry since 1988.

Epoch Investment Team Biographies

John Morgan – ***Managing Director, Portfolio Manager and Senior Research Analyst***

John is a portfolio manager for our International Small Cap strategy. Prior to joining Epoch in 2012, John spent 16 years at Putnam Investments where he was a senior vice president and co-manager of the Global Natural Resources Fund, which invested in energy, materials and industrials companies. He was also the senior chemicals and basic materials analyst for Putnam's international and global funds. Before joining the international team in 2006, John was the North American energy and basic materials analyst for Putnam's domestic funds. He holds a BA from Denison University and an MBA from The Johnson School at Cornell University.

Janet K. Navon – ***Managing Director, Portfolio Manager and Senior Research Analyst***

Janet is the director of U.S. research and is a portfolio manager for Epoch's U.S. Small Cap, U.S. SMID Cap and Global Small Cap strategies. Prior to joining Epoch in 2007, Janet spent nine years as a senior analyst and co-portfolio manager at Steinberg Asset Management. Prior to Steinberg, she was a founding principal of Atlantic Asset Management where she was responsible for product development, sector strategies, and corporate security analysis. Janet's experience also includes investment management positions at Columbus Circle Investors and J.P. Morgan Investment Management where she coordinated quantitative portfolio strategies and new product development. Janet holds a BS from Georgetown University School of Foreign Service and an MBA from Columbia University, Graduate School of Business.

Alex Orozco, CFA – ***Vice President, Research Analyst***

Alex is a global equity research analyst. His primary focus is on Epoch's Global and U.S. Equity Shareholder Yield strategies. Prior to joining Epoch in 2014, Alex was a research analyst at Tocqueville Asset Management where he followed a variety of sectors, including information technology and industrials. He received his MBA from the New York University's Leonard N. Stern School of Business and his BBA from the University of Wisconsin-Milwaukee. Alex holds the Chartered Financial Analyst designation.

Dave Pratter, CFA – ***Vice President, Performance Analyst***

Dave is a member of Epoch's Quantitative Research & Risk Management team responsible for performance measurement and portfolio implementation. Prior to joining Epoch in 2014, Dave spent nine years at FactSet Research Systems, where he was most recently a portfolio analytics specialist. He was responsible for helping clients with portfolio measurement, return decomposition and performance attribution. Dave holds a BS in Finance from Pennsylvania State University and holds the Chartered Financial Analyst designation.

Lilian Quah, CFA – ***Director, Portfolio Manager, Quantitative Research and Risk Management***

Lilian is a portfolio manager and senior analyst on the Quantitative Research and Risk Management team. Prior to joining Epoch in 2013, she spent five years at AllianceBernstein, where she was a senior quantitative analyst in the Value Equities Group. Before Bernstein, Lillian was a senior consultant in the finance practice at the ERS Group, an economics consulting firm. Lilian has a BA in Economics from Wellesley College and a Masters in Economics from Stanford University. She holds the Chartered Financial Analyst designation.

John P. Reddan, CFA – ***Managing Director, Senior Research Analyst***

John is a senior equity research analyst. Prior to joining Epoch in 2004, he was a senior equity analyst at Columbia Management Group responsible for research recommendations in the media/entertainment and online industries. Before Columbia Management, he was a senior investment analyst at Mark Partners for six years where he performed fundamental research on long and short investment ideas. Prior to joining Mark Partners, John held a similar position at Moran Asset Management where he provided both buy-side and sell-side research to investment policy committees, institutional brokerage clients, and the company's institutional sales force. He is a graduate of Siena College, and holds an MBA from Columbia University, Graduate School of Business. John holds the Chartered Financial Analyst designation.

Epoch Investment Team Biographies

Jason S. Root, CIPM – ***Director, Head of Performance Measurement and Portfolio Implementation***

Jason is a member of Epoch's Quantitative Research & Risk Management team and leads the performance measurement and portfolio implementation group where he is responsible for transaction cost analysis, analyst attribution and administration of our soft dollar program. Prior to joining Epoch in 2006, he was at Allianz Global Investors of America L.P., where he was responsible for performance measurement, attribution, and maintenance of firm-wide GIPS® compliance. Jason's prior experience also includes senior performance analytics responsibilities at Citigroup Asset Management and Sanford C. Bernstein & Co. Jason holds a BA in Accounting from the University of Wisconsin – Madison. He is a CIPM certificate holder.

Stephen Rose – ***Senior Associate, Research Analyst***

Stephen is a research analyst for our U.S. equity team. Prior to joining Epoch in 2013, Stephen was an analyst for FIC Capital, where he focused on the consumer staples, consumer discretionary and financials sectors. Before FIC Capital, Stephen worked in strategic planning at the Rose Group, where he analyzed investment opportunities including restaurant and real estate transactions as well as prepared various financial analyses of business activities. Prior to that, Stephen worked in real estate finance at ING Investment Management and held research roles at Prudential Equity Group and Bloomberg. Steve holds a BS in Business Administration from Bucknell University and an MBA from New York University's Leonard N. Stern School of Business.

Eric Sappenfield – ***Managing Director, Portfolio Manager and Senior Research Analyst***

Eric is a portfolio manager for Epoch's Global and U.S. Equity Shareholder Yield strategies. Prior to joining Epoch in 2006, he was a research analyst at Spear Leeds & Kellogg where he was responsible for credit/risk assessment. Previously, he was a senior analyst at Steinberg Priest & Sloane Capital Management, LLC focusing on high yield bonds and equities of leveraged companies. Eric's additional experience includes senior analytical roles at The Carlyle Group, Travelers, and Bankers Trust. Eric holds a BA degree from Stanford University and an MBA from UCLA Anderson School of Management.

David J. Siino, CFA, CAIA – ***Managing Director, Senior Research Analyst***

David is a senior equity research analyst. Prior to joining Epoch in 2007, he was a research analyst with Gabelli & Company where he was responsible for covering the financial services sector, overseeing the automotive sector research team and making buy/sell recommendations for the Gabelli mutual funds. Before joining Gabelli & Company, David was an assistant research director for Barron's Business and Financial Weekly. David holds a BA from Hofstra University and an MBA from Baruch College. He holds the Chartered Financial Analyst and Chartered Alternative Investment Analyst designations.

Timothy Sledge, CFA – ***Director, Research Analyst***

Tim is a non-U.S. equity research analyst with a primary focus on the financial services sector. Prior to joining Epoch in 2011, Tim was a principal and sector research team leader at Bessemer Trust Company, where he worked on Bessemer's global financials team. Previously, Tim was a junior analyst with Sanford C. Bernstein, covering the insurance sector. Prior to Sanford C. Bernstein, he was a manager of institutional research at Davis Advisors. Tim holds a BA in Economics and English from the University of Pennsylvania. He holds the Chartered Financial Analyst designation.

Jeffrey A. Smith – ***Managing Director, Senior Research Analyst***

Jeff is a senior U.S. equity research analyst. Jeff joined Epoch in 2008 after seven years at AllianceBernstein, where he was a vice president and global equity research analyst. At Bernstein, Jeff was primarily responsible for research coverage of cyclicals in the U.S. and emerging markets. He made buy/sell recommendations for both long and short positions. Jeff holds a BSE from Princeton University and an MBA from the University of Chicago Graduate School of Business.

Epoch Investment Team Biographies

Mark H. Strauss – ***Managing Director, Head of Trading***

Mark leads the trading effort at Epoch Investment Partners and is primarily responsible for trading U.S. securities. Prior to joining Epoch in 2004, Mark spent 18 years as Head Trader at Steinberg, Priest and Sloane Capital Management, LLC where he oversaw all trading functions and participated as a member of the investment committee. His duties included trading both U.S. and non-U.S. securities. Mark holds a BA from Oneonta State University of New York and completed graduate work at Pace University in New York.

John M. Tobin, PhD, CFA– ***Director, Portfolio Manager and Senior Research Analyst***

John is a portfolio manager for our Global and U.S. Equity Shareholder Yield strategies. Prior to joining Epoch in 2012, John taught undergraduate economics as a lecturer at Fordham University. Before that he spent four years at HSBC Global Asset Management as a senior research analyst and almost twenty years at Credit Suisse Asset Management where he was a senior research analyst for the U.S. High Yield Bond team. Previously he worked at Bankers Trust Company where he began his career. John received AB, AM and PhD degrees in Economics from Fordham University and holds the Chartered Financial Analyst designation.

Rick Vandale, CFA – ***Managing Director, Global and U.S. Portfolio Management***

Rick is a client portfolio manager for Global and U.S. equity strategies. Prior to joining Epoch in 2013, Rick was a portfolio manager at TD Asset Management where he was responsible for managing U.S. equity portfolios. Prior to TD, he was the Chief Investment Officer of Banknorth Investment Management Group, where he was responsible for both institutional and private client assets. Previously, he held portfolio and relationship management positions at Wellington Management Co., and Standish, Ayer & Wood. He is a finance graduate of the Isenberg School at the University of Massachusetts, Amherst, and holds an MBA from Northeastern University. Rick holds the Chartered Financial Analyst designation.

Jérôme Van Der Ghinst, CFA – ***Vice President, Research Analyst***

Jérôme is a non-U.S. equity research analyst. His primary focus is on Epoch's Non-U.S. Equity strategy. Prior to joining Epoch in 2014, Jérôme was an analyst at AllianceBernstein, where he focused on emerging and frontier markets. Before AllianceBernstein, he held research positions at Hutchinson Capital Management, The Capital Group and Citigroup. Jérôme received his BA in Political Science and International Studies from the University of Chicago and holds the Chartered Financial Analyst designation.

Douglas Van Gorp – ***Director, Trader***

Doug leads the non-U.S. trading effort for Epoch Investment Partners. Prior to joining Epoch in 2011, he was a senior trader and analyst with the State of Wisconsin Investment Board. Doug's prior experience includes being head trader at Deephaven Capital Management where he was responsible for a fundamental global long/short strategy. Doug holds a BA in Finance from the Carlson School of Management at the University of Minnesota.

Kera Van Valen, CFA – ***Director, Portfolio Manager and Senior Research Analyst***

Kera is a portfolio manager for our Global and U.S. Equity Shareholder Yield strategies. Prior to joining the Global Equity team Kera was an analyst within Epoch's Quantitative Research and Risk Management team. Before joining Epoch in 2005, she was a portfolio manager of Structured Equities and Quantitative Research at Columbia Management Group where she was responsible for the day-to-day management of two index funds. She also worked at Credit Suisse Asset Management. Kera received her BA in Mathematics at Colgate University and her MBA at Columbia University, Graduate School of Business. She holds the Chartered Financial Analyst designation.

Epoch Investment Team Biographies

Richard Watt – ***Managing Director, Global Portfolio Management***

Richard leads our client portfolio manager and product management group. Prior to joining Epoch in 2007, Richard spent four years as Executive Vice President of U.K.-based Schroders Investment Management where his responsibilities included consultant relations, client service and sales for domestic and international equity, fixed income and alternative products. Prior to Schroders, he worked at Credit Suisse Asset Management as Head of Emerging Markets and President of CSAM's closed-end investment funds responsible for managing a variety of investment products for clients located globally. Richard has held positions as a portfolio manager with Gartmore and Kleinwort Benson in London. He began his career in Edinburgh, Scotland in 1982. He holds an MA Joint Honors Degree in History and Politics from the University of Edinburgh.

Michael A. Welhoelter, CFA – ***Managing Director, Portfolio Manager and Head of Quantitative Research and Risk Management***

Mike is Epoch's Chief Risk Officer and heads Epoch's Quantitative Research and Risk Management team. He is responsible for integrating risk management into the investment process. Prior to joining Epoch in 2005, he was a Director and portfolio manager in the Quantitative Strategies Group at Columbia Management Group, Inc. In this role, he managed over $5 billion in mutual funds and separately managed portfolios. Prior to joining Columbia Management Group, he was at Credit Suisse Asset Management Group ("CSAM"), where he was a portfolio manager in the Structured Equity group, overseeing long/short market neutral and large cap core products. Before joining CSAM, he was a portfolio manager and quantitative research analyst at Chancellor/LGT Asset Management. Mike holds a BA degree in Computer and Information Science from Colgate University. He is a member of the New York Society of Security Analysts, the Society of Quantitative Analysts and holds the Chartered Financial Analyst designation.

Chris H. Wolters, CFA – ***Managing Director, Senior Research Analyst***

Chris is a senior equity research analyst. Prior to joining Epoch in 2006, he was a senior analyst/portfolio manager for two years with Cobble Creek Management, a long/short hedge fund. Previous to that position, he was a senior equity analyst at First Manhattan focusing on special situations. Chris gained additional analytical experience with positions at Oscar Gruss and Son and Standard & Poor's. He received a BME in Mechanical Engineering from the University of Delaware and an MBA from New York University's Leonard N. Stern School of Business. He holds the Chartered Financial Analyst designation.

Epoch Client Relations Team Biographies

Carmen Abramian – ***Director, Client Service***

Carmen is a member of the client service team at Epoch Investment Partners with primary responsibility for relationship management of institutional and high net-worth clients. Prior to joining Epoch in 2010, Carmen worked at Capital Guardian where she coordinated all aspects of client service and was a key contact for institutional organizations including major corporations, endowments, foundations and Taft-Hartley clients. Carmen holds a BA from UC Berkeley.

Lauren Babij – ***Vice President, Client Service***

Lauren is a member of the client service team at Epoch Investment Partners with primary responsibility for day-to-day service of institutional and sub-advisory clients. Prior to joining Epoch in 2011, Lauren worked at Broadridge Financial Solutions where she was an account manager and AG Asset Management and Cohen & Steers Capital Management where she served in the institutional client service role. Lauren holds a BS in finance from University of Delaware.

William E. Connolly, CFA – ***Managing Director, Client Relations***

Bill leads the overall business development effort for Epoch Investment Partners. Prior to joining Epoch in 2011, Bill spent 12 years at Pzena Investment Management most recently as North American Director of Business Development & Client Services. He started his career at SEI Investments in the Insurance Consulting Group then later as a Marketing Director in the Institutional Asset Management Group where he was responsible for new business development and client service. Bill earned his B.A. in Economics from the University of Virginia and holds the Chartered Financial Analyst designation.

Andrea Tasker Glogoff – ***Managing Director, Client Relations***

Andi is a member of the client relations group at Epoch with primary responsibility for relationship management of sub-advisory clients. Before taking on this responsibility, Andi was a member of our U.S. Equity team and before that headed our consultant relations effort. Prior to joining Epoch in 2006, she spent four years as a Senior Product Manager at Goldman Sachs Asset Management, where she was responsible for articulating portfolio construction and strategy for the firm's growth, value and quantitative equity teams. Before Goldman Sachs, Andi spent eight years at Sanford C. Bernstein & Co., now part of AllianceBernstein, where she held positions in the institutional and private client marketing groups as well as on the global fixed income portfolio management team. She holds a BA in International Relations from Colgate University.

Greg Graziano – ***Director, Consultant Relations***

Greg is a member of the consultant relations group at Epoch Investment Partners. Prior to joining Epoch in 2014, he spent six years at Rainier Investment Management, as a principal and director of client service and consultant relations, where he was responsible for financial consultants and institutional clients. Prior to joining Rainier in 2008, Greg worked in U.S. Trust's Institutional Group, focused on the defined contribution investment only marketplace. Before U.S. Trust, Greg was with Deutsche Asset Management/Scudder Investments as a vice president and key account manager working closely with DCIO/401k alliances, insurance trust relationships and sub-advisory clients. Greg earned a BA in Political Science from Rutgers University.

William J. Makris – ***Managing Director, Institutional Client Relations***

Bill is responsible for leading Epoch's institutional business development efforts in the western region of the U.S. and Canada. Prior to joining Epoch in 2012, Bill spent 19 years with Franklin Templeton Investments where he was responsible for institutional business development for the firm's various investment management capabilities. He brings many years of experience working with corporate retirement plans, public funds, foundations, endowments, and other institutional investors. Bill holds a BS from San Francisco State University and an MBA from the University of San Francisco.

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Epoch Client Relations Team Biographies

Robert V. Martin IV – ***Director, Institutional Client Relations***

Rob is responsible for Epoch's institutional business development efforts. Prior to this role, Rob was a member of our consultant relations team responsible to servicing and developing Epoch's consultant relationships. Prior to joining Epoch in 2004, he spent four years as an Associate at Sanford C. Bernstein & Co., now part of AllianceBernstein, where he held positions with the Private Client Services group and the New Business Development group. Previously, Rob supported the Healthcare Research team at Goldman Sachs. Rob holds a BA in Finance from the University of Georgia.

Sarah J. Mason – ***Vice President, Sub-Advisory Relations***

Sarah is a member of the client relations group at Epoch Investment Partners, with responsibility for servicing and developing sub-advisory, institutional and consultant relations efforts. Prior to joining Epoch in 2011, Sarah worked at PineBridge Investments as a relationship manager in their client relations group and was the key client contact for institutional organizations including major corporations, endowments, foundations and high-net-worth clients. Sarah holds a BA from Amherst College and a Master of Arts in Teaching from Manhattanville College.

Maura McNulty – ***Director, Client Service***

Maura is a member of the client service team with primary responsibility for relationship management of Epoch's institutional clients. Prior to joining Epoch in 2013, Maura worked at Cramer Rosenthal McGlynn, LLC, where she managed institutional client and consultant relationships and led in-house marketing efforts. Previously, she was an institutional equity sales associate at A.G. Edwards & Sons, Inc. Maura holds a BA in Mathematical Economics from Colgate University.

Nancy Jacobson Paley – ***Managing Director, Chief of Staff, Business Development***

Nancy is a Managing Director and the Chief of Staff, Business Development, responsible for growth and strategic initiatives. Prior to joining Epoch, Nancy was a managing director and the chief administrative officer of Octavian Advisors, LP, a global hedge fund. She previously worked at Lehman Brothers, as a corporate strategist and in alternative investment management businesses. She was also a consultant at McKinsey & Co., in the Financial Institutions Group. Nancy holds a BA in Economics from Yale University, a JD from Yale Law School and is a member of the New York State Bar.

Thomas Pernice – ***Managing Director, Client Service***

Tom leads the client service effort at Epoch Investment Partners, bringing extensive client relationship experience to the role. Prior to joining Epoch in 2006, Tom led the client service effort at Forstmann-Leff. Before that, Tom spent 23 years at JP Morgan Fleming Asset Management where he directed the firm's institutional client service group and managed a number of major relationships for the firm. Tom holds a BA from Stony Brook University and completed investment courses at New York University's Leonard N. Stern School of Business.

Christine Sasse, CFA – ***Director, Consultant Relations***

Christine is a member of the consultant relations group at Epoch Investment Partners. Prior to joining Epoch in 2014, she spent nine years as Director of Consultant Relations and Institutional Sales at Philadelphia International Advisors (PIA), a non-U.S. and emerging market asset management firm where she was also a partner. Prior to PIA, Christine worked at CRA Rogers Casey. During her tenure, she worked as a consultant directly responsible for client programs then later was a member of the U.S. Equity Manager Research team. She earned a BS in accounting from the University of Maryland, College Park and holds the Chartered Financial Analyst designation.

Epoch Client Relations Team Biographies

Leeor Sillman – ***Director, Client Relations and Marketing***

Leeor is a member of the marketing group at Epoch. He has broad background in global institutional, sub-advisory and retail marketing and communications across a variety of asset classes. Prior to joining Epoch in 2014, Leeor spent nine years with PineBridge Investments where, after heading sub-advisory marketing, he went on to lead the marketing effort for the Americas and Europe. He previously held marketing roles in the insurance industry. Leeor holds a BS in Marketing and Management from the University at Albany and an MBA from the Peter J. Tobin College of Business at St. John's University.

Patricia Tiralongo, CFA – ***Director, Client Relations***

Patricia is a member of the client relations group at Epoch. Prior to joining Epoch in 2014, Patricia spent 16 years at TD Asset Management (TDAM), most recently as a member of the institutional relationship management team, where she was responsible for client service, marketing and business development for Canadian institutional clients. Previously she was a portfolio manager on the quantitative investment team, focusing on transition and equity index portfolio management and before that was a research associate and trader for an internal hedge fund portfolio within TDAM. Patricia earned an Honours BA Specialist in Management from the University of Toronto and holds the Chartered Financial Analyst designation.

Andrew G. Tuite – ***Director, Institutional Client Relations***

Andrew is responsible for Epoch's institutional business development efforts. Andrew has extensive experience in institutional marketing covering the plan sponsor community. Prior to joining Epoch in 2010, he held a similar position at BNY Convergex, a transition management and brokerage services firm partially owned by Bank of New York Mellon. Prior to Convergex, he was employed at Lynch Jones & Ryan, Phoenix Wealth Management and Magna Securities. Andrew holds a BA from Manhattan College and an MBA in finance from the University of Notre Dame.

Jeffrey M. Ulness – ***Managing Director, Sub-Advisory Relations***

Jeff leads the sub-advisory business relationship effort at Epoch Investment Partners. Prior to joining Epoch in 2004, he held a similar position at Forstmann-Leff. Earlier, he was at Deutsche Asset Management where he was co-head of the Financial Institutions Group and the director of sales for third-party insurance. Prior to Deutsche, Jeff spent eight years at American Skandia Life. His responsibilities included Counsel to Securities and Markets and later he became a member of Skandia's Global Investment Committee, Head of Global Fund Manager Relations and Head of Asset Management Product Development. For three years prior to joining Skandia, Jeff was Counsel at Manulife Financial of Canada. He has also served with the SEC's Division of Investment Management. He holds a JD and BA from University of North Dakota and an LL.M Securities Regulations from Georgetown University Law Center. Jeff also served 13-plus years in the Army National Guard, the majority in a leadership capacity as an officer in the Medical Service Corps and Engineer Corps.

John Wachter – ***Managing Director, Marketing***

John leads the marketing group for Epoch Investment Partners. He has a background in global institutional marketing and client communications. Prior to joining Epoch in 2011, John spent 13 years at Capital Guardian/Capital International where he was a vice president and senior manager, heading a global institutional communications team and the Marketing Strategy Group for North America. He previously held marketing communication roles with JP Morgan, Dreyfus and Van Eck. John holds a BS in business administration and psychology from SUNY Oswego.

Epoch Client Relations Team Biographies

Jennifer Walker – ***Director, Sub-Advisory Relations***

Jennifer is a member of the client relations group at Epoch, with responsibility for servicing and developing sub-advisory relationships. Prior to joining Epoch in 2013, Jennifer worked as a third-party marketing professional focused on both long-only funds and hedge funds. Jennifer began her financial career at T. Rowe Price in an institutional client service role. She later spent 10 years at Lehman Brothers and Morgan Stanley working with private wealth and institutional clients. Jennifer holds a BA from Georgetown University and an MBA from New York University, Leonard N. Stern School of Business.

Kevin "Chip" Welsh Jr. – ***Vice President, Consultant Relations***

Chip is a member of the client relations group at Epoch Investment Partners, primarily focused on the firm's consultant relations efforts. He joined Epoch in 2012, supporting the client relations group's business development efforts within institutional, consultant relations, and sub-advisory channels. Prior to joining Epoch, he was an associate at SkyBridge Capital and an original member of the global platform distribution team responsible for marketing the firm's fund of hedge fund products. Chip holds a BA from The University of Michigan, and is an MBA candidate at Columbia Business School. .

Epoch Compliance and Operations Team Biographies

Edward Azimi – ***Managing Director, Director of Operations***

Ed is the Director of Operations for Epoch Investment Partners. He oversees the day-to-day activities of the Operations Team such as settling trades, performing portfolio accounting and conducting foreign exchange transactions. Prior to joining Epoch in 2006, Ed spent eight years at Cramer Rosenthal McGlynn, LLC, a value-oriented investment advisory firm. As the Director of Operations and Principal of the firm he oversaw the daily operational functions for the firm's proprietary hedge funds and private equity funds. Ed also served as a member of the firm's Compliance and Alternative Investments committees. Prior to joining Cramer Rosenthal McGlynn, Ed was a Performance Analyst at Effron PSN (now Informa Investment Solutions) and a Staff Accountant with Reed Elsevier. Ed holds a BA degree in Finance from Pace University and an MBA from the Lubin School of Business.

Curt Banos, CPA – ***Director and Controller***

Curt is the Corporate Controller, overseeing the Firm's accounting and financial reporting, as well as corporate tax matters. Prior to joining Epoch in 2006, he held several SEC reporting and tax positions in the financial services industry for companies including Evercore, American Express Tax and Business Services, and the New York Mercantile Exchange ("NYMEX"). At NYMEX, Curt spent eight years in positions as assistant controller and director of accounting and taxation. He has eleven years of public accounting experience, including three as an audit supervisor with Grant Thornton. He began his career as an internal auditor with HSBC. Curt is a Certified Public Accountant and holds an MBA in Finance from Fordham University. He is a member of the American Institute of Certified Public Accountants, the Tax Executives Institute, and the New York State Society of Certified Public Accountants ("NYSSCPA"). Curt also served on the SEC Practice Committee of the NYSSCPA.

David Barnett – ***Managing Director, Managing Attorney and Chief Compliance Officer***

David is Managing Director, Managing Attorney and Chief Compliance Officer for Epoch Investment Partners. Prior to joining Epoch in 2010, David was the general counsel and chief compliance officer at two hedge funds, Valhalla Capital and JL Advisors. Previously, he served as Chief Compliance Officer for alternative asset management firm, J.H Whitney, LLC and SAC Capital Advisors, LLC. His additional experience includes working in the legal and compliance departments at JP Morgan and Salomon Smith Barney as well as working for the SEC in the Enforcement Division. David holds a BA from the University of Michigan and a JD from Brooklyn Law School.

Kevin LeBlanc, CFA – ***Managing Director and Chief Administrative Officer***

Kevin is Managing Director and Chief Administrative Officer of Epoch Investment Partners. Prior to joining Epoch in 2013, Kevin was the chief operating officer of TD Asset Management with P/L responsibility for TD Investment Management, the asset manager portion of TD Asset Management. From 1993-2010, Kevin was a portfolio manager at TD Asset Management, where his responsibilities included managing indexed and immunized bond portfolios, equity futures and index portfolios and quantitative equity strategies. Prior to TD, Kevin worked as portfolio manager and analyst at NN Financial (Canadian insurance subsidiary of ING Bank). Kevin holds a BBA and BSc degrees from the University of New Brunswick and a MBA from the University of Toronto. He holds the Chartered Financial Analyst designation.

Mark McGowan – ***Managing Director, Chief Technology Officer***

Mark is the Chief Technology Officer of Epoch Investment Partners. Before joining Epoch in 2007, Mark was the CTO of NOBOK, Inc, a startup sports media company. Prior to joining NOBOK, Mark held several senior roles at Time Warner Cable. During his tenure with TimeWarner, he took a six-month sabbatical and worked for the Department of Justice ("DOJ") on their Personal Key Infrastructure implementation across all DOJ components. His other prior experience includes being a co-founder of a technology services startup, iO2 Group and working for Integic, a division of Northrop Grumman. Mark is a graduate of the University of Vermont, has an MBA from The George Washington University and an MS in the Management of Information Technology from the University of Virginia. Mark also has a Masters Certificate in Project Management from The George Washington University.

Epoch Compliance and Operations Team Biographies

David Shagawat, CRCMP – ***Director, Compliance Manager***

David is the Director and Compliance Manager for Epoch Investment Partners. Before joining Epoch in 2013, David spent approximately seven years in various compliance roles at AXA Equitable Funds Management Group, most recently as Deputy Chief Compliance Officer. Prior to AXA, David worked in the compliance departments at Citigroup Asset Management and Alliance Capital Management. He holds a BS in Business Administration with a double concentration in Accounting and Finance from Montclair State University and is a Certified Risk and Compliance Management Professional.

Maryanne Sharkey, CPA – ***Managing Director, Finance and Administration***

Maryanne is responsible for financial reporting and business management functions at Epoch. Prior to joining Epoch in 2006, she spent six years at Credit Suisse Asset Management Americas and held the positions of vice president and financial controller in the corporate finance department of the firm's New York office. Prior to that, Maryanne was an accounting manager at Prudential in the global asset management division. Maryanne began her career in public accounting with experience in audit and tax. She holds a BS in Business Administration with an Accounting concentration from Monmouth University and is a Certified Public Accountant.

Lori Blankstein Silberlust – ***Director, Human Resources***

Lori is the Director of Human Resources, responsible for the initiatives that focus on attracting, rewarding, developing and retaining its people. Prior to joining Epoch, Lori was a vice president and human resources business partner at Barclays, responsible for all facets of Human Resources' management for the Americas Wealth and Investment Management businesses and provided counsel to senior leadership on strategic and tactical human resources deliverables. Prior to Barclays, she spent fourteen years at Lehman Brothers in a variety of recruitment, program management and HR business partner roles. Lori holds a BA in Marketing from the University of South Florida.

Global Choice

Global Choice Composite Annual Performance Disclosures									
	Total Firm	Composite Assets		Annual Performance Results					
Year End	Assets (Millions)	USD (Millions)	Number of Accounts	Composite Gross	Composite Net **	MSCI World (Net)	Internal Dispersion	Composite 3-Yr St Dev	MSCI World (Net) 3-Yr St Dev
2013	38,439	3,987	23	32.52%	31.83%	26.68%	0.6%	12.10%	13.54%
2012	24,534	3,095	22	15.42%	14.86%	15.83%	0.8%	15.42%	16.74%
2011	19,217	1,918	18	(0.14)%	(0.61)%	(5.54)%	0.4%	16.43%	20.15%
2010	14,326	1,337	14	6.82%	6.27%	11.76%	0.7%	20.42%	23.72%
2009	11,354	943	11	37.40%	36.17%	29.99%	0.8%	18.47%	21.40%
2008	5,348	108	Five or fewer	(35.61)%	(36.30)%	(40.71)%	N.A	17.52%	17.02%
2007	6,682	67	Five or fewer	17.19%	16.20%	9.04%	N.A		
2006	4,408	19	Five or fewer	29.95%	28.86%	20.07%	N.A		
2005*	2,235	23	Five or fewer	6.35%	6.13%	3.06%	N.A		

N.A. - Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year. *Results shown for the year 2005 represent partial period performance from October 1, 2005 through December 31, 2005. **Net performance reflects the gross-of-fees return reduced by the investment management fee incurred. Effective 1/2008, net performance is calculated by deducting the actual investment management fee incurred by each portfolio in the composite. Prior to 1/2008, net-of-fee returns reflect the deduction of the highest annual management fee, calculated on a monthly basis.

1. Global Choice Composite contains fully discretionary concentrated portfolios of global equity securities managed by Epoch for longer term capital appreciation. Epoch employs a research process focused on free-cash-flow generation as opposed to traditional accounting based metrics such as P/E or P/B. The portfolio consists of approximately 25-35 securities which are selected on the expectation they will generate excess free cash flow and whose management will allocate it prudently among internal reinvestment opportunities, acquisitions, dividends, share repurchases and/or debt pay downs.

2. For comparison purposes the composite is measured against the MSCI World (Net) Index [Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties]. Effective 1/2009, the benchmark was changed from the MSCI World (Gross) Index to the MSCI World (Net) Index because it is more representative of the firm's accounting methodology with regards to foreign withholding tax treatment. This change has been applied retroactively. The minimum account size for this composite is $500 thousand.

3. Epoch Investment Partners, Inc. claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Epoch Investment Partners, Inc. has been independently verified for the periods June 21, 2004 through June 30, 2014. 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. The Global Choice composite has been examined for the periods October 1, 2005 through June 30, 2014. The verification and performance examination reports are available upon request.

4. Epoch Investment Partners, Inc. is a wholly owned subsidiary of The Toronto Dominion Bank. Epoch Investment Partners, Inc. ("Epoch") became a registered investment adviser under the Investment Advisers Act of 1940 in June 2004. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

Global Choice

5. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm.

6. Valuations are computed and performance is reported in U.S. dollars. Returns are presented gross and net of management fees and include the reinvestment of all income. Net performance reflects the gross-of-fees return reduced by the investment management fee incurred. Effective 1/2008, net performance is calculated by deducting the actual investment management fee incurred by each portfolio in the composite. Prior to 1/2008, net-of-fee returns reflect the deduction of the highest annual management fee, calculated on a monthly basis. Returns include the effect of foreign currency exchange rates. Composite and benchmark (international indices) returns are presented net of non-reclaimable withholding taxes.

7. Internal dispersion is calculated using an asset-weighted standard deviation of annual gross returns of those accounts that were included in the composite for the entire year. Internal dispersion figures that are not meaningful due to the limited number of accounts in the composite are annotated by N/A. The three-year annualized standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period.

8. The Global Choice Composite was created in October of 2005. A complete list of composite descriptions is available upon request.

9. The investment management fee schedule is as follows:

Global Choice (Separate account minimum $50 million)	
ASSETS UNDER MANAGEMENT	**FEE**
First $50 million	0.85%
Next $50 million	0.75%
Over $100 million	Negotiable

This fee schedule is effective as of 1-1-12. Past performance is not indicative of future results. Actual investment advisory fees incurred by clients may vary. Minimum account sizes, fees and fee structure, and other conditions may be waived or modified in the future, and have been waived or modified in the past, at the discretion of Epoch.

Global Equity Shareholder Yield

Global Equity Shareholder Yield Composite Annual Performance Disclosures									
	Total Firm	Composite Assets		Annual Performance Results					
Year End	Assets (Millions)	USD (Millions)	Number of Accounts	Composite Gross	Composite Net **	MSCI World (Net)	Internal Dispersion	Composite 3-Yr St Dev	MSCI World (Net) 3-Yr St Dev
2013	38,439	14,082	32	25.17%	24.72%	26.68%	0.3%	10.69%	13.54%
2012	24,534	9,593	24	11.50%	11.10%	15.83%	0.4%	13.28%	16.74%
2011	19,217	5,737	13	7.09%	6.71%	(5.54)%	0.4%	15.10%	20.15%
2010	14,326	2,320	10	13.16%	12.75%	11.76%	0.5%	18.00%	23.72%
2009	11,354	2,136	10	25.17%	24.65%	29.99%	0.3%	15.76%	21.40%
2008	5,348	879	6	(31.49)%	(31.79)%	(40.71)%	N.A	13.66%	17.02%
2007	6,682	1,356	Five or fewer	9.88%	9.01%	9.04%	N.A		
2006	4,408	566	Five or fewer	26.97%	25.96%	20.07%	N.A		

N.A. - Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year. **Net performance reflects the gross-of-fees return reduced by the investment management fee and performance-based fee (where applicable) incurred. Effective 1/2008, net performance is calculated by deducting the actual investment management fee incurred by each portfolio in the composite. Prior to 1/2008, net-of-fee returns reflect the deduction of the highest annual management fee, calculated on a monthly basis.

1. Global Equity Shareholder Yield Composite contains fully discretionary diversified portfolios of global equity securities managed by Epoch for above average income and long-term capital appreciation. Epoch employs a research process focused on free-cash-flow generation as opposed to traditional accounting based metrics such as P/E or P/B. The portfolio consists of approximately 90-100 securities which are selected on the expectation they will generate excess free cash flow and whose management will allocate it prudently among dividends, share repurchases, debt pay downs, internal reinvestment opportunities and/or acquisitions.

2. For comparison purposes, the composite is measured against the MSCI World (Net) Index. [Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties]. Effective July 1, 2009, the benchmark was changed from the S&P Developed BMI Index to the MSCI World (Net) Index because it is more representative of the composite's investment strategy. This change has been applied retroactively. [Prior to October 1, 2008, the index was known as the S&P/Citigroup BMI World Index]. The minimum account size for this composite is $500 thousand.

3. Epoch Investment Partners, Inc. claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Epoch Investment Partners, Inc. has been independently verified for the periods June 21, 2004 through June 30, 2014. 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. The Global Equity Shareholder Yield composite has been examined for the periods January 1, 2006 through June 30, 2014. The verification and performance examination reports are available upon request.

4. Epoch Investment Partners, Inc. is a wholly owned subsidiary of The Toronto Dominion Bank. Epoch Investment Partners, Inc. ("Epoch") became a registered investment adviser under the Investment Advisers Act of 1940 in June 2004. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

5. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm.

Global Equity Shareholder Yield

6. Effective January 1, 2008, our significant cash flow policy has been removed. This policy amendment will not be applied retroactively. Effective January 1, 2006, our significant cash flow policy had been redefined as in excess of 25% of the portfolio market value. Prior to January 1, 2006, composite policy required the temporary removal of any portfolio incurring a client initiated significant cash inflow or outflow of 10% or greater of portfolio market value. This policy was not applied to the advised Epoch mutual funds, if applicable. Additional information regarding the treatment of significant cash flows is available upon request.

7. Valuations are computed and performance is reported in U.S. dollars. Returns are presented gross and net of management fees and include the reinvestment of all income. Net performance reflects the gross-of-fees return reduced by the investment management fee and performance-based fee (where applicable) incurred. Effective 1/2008, net performance is calculated by deducting the actual investment management fee incurred by each portfolio in the composite. Prior to 1/2008, net-of-fee returns reflect the deduction of the highest annual management fee, calculated on a monthly basis. Returns include the effect of foreign currency exchange rates. Composite and benchmark (international indices) returns are presented net of non-reclaimable withholding taxes.

8. Internal dispersion is calculated using an asset-weighted standard deviation of annual gross returns of those accounts that were included in the composite for the entire year. Internal dispersion figures that are not meaningful due to the limited number of accounts in the composite are annotated by N/A. The three-year annualized standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period.

9. The Global Equity Shareholder Yield Composite was created in January 2006. A complete list of composite descriptions is available upon request.

10. The management fee schedule is as follows:

Global Equity Shareholder Yield (Separate account minimum: $50 million)	
ASSETS UNDER MANAGEMENT	**FEE**
First $50 million	0.80%
Next $50 million	0.70%
Over $100 million	Negotiable

This fee schedule is effective as of 1-1-12. Past performance is not indicative of future results. Actual investment advisory fees incurred by clients may vary. Minimum account sizes, fees and fee structure, and other conditions may be waived or modified in the future, and have been waived or modified in the past, at the discretion of Epoch.

TO: State Investment Board ("SIB")

FROM: Dave Hunter, Executive Director/CIO, Retirement and Investment Office ("RIO")

DATE: October 24, 2014

SUBJECT: Bank of North Dakota ("BND") Match Loan CD Program Recommendation

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BND Request:

BND initially requested the SIB increase the Match Loan CD Program ("Program") from $200 million to $300 million and lengthen the maximum fixed interest rate term offered from 5 years to 10 years. After further discussion with RIO, BND revised its request to reduce the size of the commitment increase by $50 million (to $250 million) and eliminate the fixed rate term extension.

Recommendation:

RIO does not recommend increasing the Program size at this time given that the interest rate earned on this investment is based on fixed rate U.S. treasury notes which have declined significantly in 2014. RIO notes the credit risk of this Program is low given that the investment consists of Certificates of Deposit ("CD") issued by the Bank of North Dakota (CD's rated AA+ by S&P) which is backed by the State of North Dakota (assigned the highest rating of AAA by S&P). However, increasing the commitment size of this fixed rate program at this time would cause a significant increase in the maximum allowable interest rate risk permitted within the portfolio and is deemed to be imprudent in the opinion of the CIO and Deputy CIO given the current low interest rate environment. As the interest rate environment changes in the future, the Retirement and Investment Office will continue to monitor the program and make recommendations which are intended to maximize expected earnings while limiting credit and interest rate risk given the conservative risk profile and nature of the Budget Stabilization Fund ("Fund").

Given the current low interest rate environment, **RIO intends to amend the terms of the Program by incorporating two new covenants which are intended to maintain our historical return expectations for the Fund while seeking to limit interest rate risk:**

1) Expected Return Requirement – The Program's overall minimum expected return should not be less than 2%. This minimum return threshold can be tested immediately prior to funding any new CD by determining the expected return after incorporating the new loan amount and fixed interest rate. The Fund generated a net investment return of 1.94% and 1.95% for the 1- and 3-year periods ended June 30, 2014, respectively. As such, the 2% minimum required rate of return expectation is consistent with recent Fund performance.

2) Maximum Interest Rate Duration – In order to limit interest rate risk, the Program's interest rate exposure must not exceed 4 years on a duration adjusted basis. The maximum exposure can be tested immediately prior to funding any new CD or resetting the fixed rate term of any existing CD.

Future Actions: RIO will continue to monitor this Program which has been successful in the past. In the event interest rates were to change significantly in the future, RIO will reassess the Program size and its risk, return and liquidity profile within the overall Budget Stabilization Fund investment portfolio.

Interest Rate Movements in 2014

Although many experts believe interest rates will rise, it is important to note that US Treasury rates have declined significantly in 2014. Ten-year notes declined from 3.04% at December 31, 2013 to 2.20% as of October 20, 2014, while 5-year rates declined from 1.75% to 1.41%. Increasing exposure to any fixed rate strategy shortly after a period of a sharp decline in rates must be carefully considered particularly given the common belief that rates will rise in the near to medium term future.

BND Match Loan Program:

The SIB has a commitment to the BND Match Loan Program. The purpose of the program is to encourage and attract financially strong companies to North Dakota. The program is targeted to manufacturing, processing and value added industries.

The SIB provides capital to the program by purchasing Certificates of Deposit (CD's) from BND. The CD's are guaranteed by the state, typically have seven to fifteen year maturities and pay interest pegged to US Treasury Notes. The fixed interest rate term cannot currently exceed five (5) years.

The BND Match Loan CD Program has been an approved investment within the Budget Stabilization Fund for over 10 years noting that the Program has been in place for over 20 years.

BND provided RIO with the following listing of the current loans outstanding under this facility:

North Dakota - MATCH Program

Loan #	Issue Date	Final Maturity	Weighted Average Life (yrs)	BND Loan Amount	BND Loan Balance (RIO)	Rate
Loan 8	1/17/2002	1/31/2017	2.28	$ 4,600,000	$ 920,000	5.43%
Loan 9	5/13/2006	11/10/2014	0.05	$ 3,300,000	$ 132,000	5.30%
Loan 11	9/30/2003	9/30/2018	3.94	$ 825,000	$ 275,000	4.55%
Loan 12	8/12/2004	7/1/2019	4.69	$ 15,000,000	$ 5,000,000	5.03%
Loan 13	9/21/2004	9/21/2019	4.92	$ 5,000,000	$ 2,000,000	4.65%
Loan 14	1/13/2006	1/13/2021	6.23	$ 2,500,000	$ 1,166,667	4.60%
Loan 15	4/13/2006	4/13/2016	1.48	$ 17,115,000	$ 3,423,000	4.88%
Loan 16	6/20/2006	6/20/2017	2.66	$ 5,000,000	$ 1,363,640	5.13%
Loan 17	9/15/2006	9/15/2017	2.90	$ 7,100,000	$ 2,581,815	4.80%
Loan 18	5/30/2007	6/1/2027	12.62	$ 25,000,000	$ 16,250,000	5.07%
Loan 19	6/18/2008	6/18/2018	3.66	$ 2,300,000	$ 920,000	4.20%
Loan 20	9/11/2008	7/1/2023	8.70	$ 25,000,000	$ 15,000,000	1.71%
Loan 21	10/17/2008	10/17/2028	14.00	$ 15,000,000	$ 11,250,000	4.42%
Loan 22	5/31/2012	5/31/2017	2.61	$ 15,000,000	$ 13,000,000	0.76%
Loan 23	4/23/2013	4/23/2018	3.50	$ 30,000,000	$ 27,000,000	0.71%
Loan 24	6/25/2014	6/25/2019	4.68	$ 4,000,000	$ 4,000,000	1.72%
Total			6.75	$ 176,740,000	$ 104,282,122	

Board Action Requested:

RIO recommends the SIB deny the requested increase at this time given the current low interest rate environment.

APPENDIX

The Appendix follows and contains the Investment Policy Statement for the Budget Stabilization Fund and S&P's rating rationale for the Bank of North Dakota.

Budget Stabilization Fund Overview:

The Budget Stabilization Fund (or "Fund") is a "Rainy Day Fund", the mission of which is to help smooth cyclical fluctuations in the State's general fund budget and dampen the impact of tax and expenditure adjustments during periods of economic downturns. As per policy, the investment objectives of the Fund reflect the unknown time horizon and moderate risk tolerance of the Fund. The investment objective of the Fund, therefore, as stated in the investment policy statement is to "maintain sufficient liquidity to meet known or anticipated financial obligations and preserve the value of the surplus." By virtue of the goals and constraints of the Fund, **the Fund should be managed as a highly liquid portfolio that seeks to minimize interest rate and credit risk through cash instruments so as to ensure safety of principal.**

BUDGET STABILIZATION FUND
INVESTMENT POLICY STATEMENT

1. FUND CHARACTERISTICS AND CONSTRAINTS.

The Budget Stabilization Fund (Fund) is a special fund created in 1987 under Chapter 54-27.2 of the North Dakota Century Code used to deposit general fund moneys in excess of appropriations. Notwithstanding the provisions of sections 54-27.2-01 and 54-27.2-02, $124,936,548 was required to be transferred by the state treasurer to the budget stabilization fund from the general fund on July 1, 2009. This transfer will provide for a total of $324,936,548 in the budget stabilization fund for the biennium beginning July 1, 2009 and ending June 30, 2011. The state investment board shall supervise investment of the budget stabilization fund in accordance with chapter 21-10.

Any interest or other budget stabilization fund earnings must be deposited in the fund. Any amounts provided by law for deposit in the fund and any interest or earnings of the fund which would bring the balance in the fund to an amount greater than five percent of the current biennial state general fund budget, as finally approved by the most recently adjourned special or regular session of the legislative assembly, may not be deposited or retained in the fund but must be deposited instead in the state general fund.

If the director of the office of management and budget projects that general fund revenues for the biennium will be at least two and one-half percent less than estimated by the most recently adjourned special or regular session of the legislative assembly, and if the governor orders a transfer, the state treasurer shall transfer the appropriate funds from the budget stabilization fund to the state general fund to offset the decrease in general fund revenues. The amount transferred from the budget stabilization fund upon order of the governor may not exceed the difference between an amount two and one-half percent below the general fund revenue projections for the biennium and the general fund revenue projections for the biennium by the director of the office of management and budget.

2. RESPONSIBILITIES AND DISCRETION OF THE STATE INVESTMENT BOARD (SIB).

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory. In accordance with this Investment Policy Statement, the Fund's assets may be invested directly or through collective investment vehicles.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

3. INVESTMENT OBJECTIVES.

The investment objectives of the Fund reflect the relatively unknown life-span and the moderate risk tolerance of the Fund. Operating and statutory considerations shape the Fund's policies and priorities as outlined below:

Objective: Sufficient liquidity is to be maintained to meet known or anticipated financial obligations and preserve the value of the surplus. Cash equivalent investments will be used to achieve this objective.

4. STANDARDS OF INVESTMENT PERFORMANCE.

The Fund's investment objectives and liquidity constraints give rise to an asset allocation that is considered the most likely to achieve the results desired. For evaluation purposes, the following performance targets will apply:

a. The Fund should produce a rate of return that meets or exceeds the portfolio policy index.

b. The annual standard deviation of total returns for the Fund should not exceed that of the policy portfolio.

5. POLICY AND GUIDELINES.

The asset allocation of the Budget Stabilization Fund is established by the SIB, with input from the Office of Management and Budget. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the fund:

Short-term Fixed Income & BND CDs	Minimum of 90%
Bank Loans w/floating yield	Maximum of 5%
Absolute Return Strategies	Maximum of 5%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

a. Futures and options may be used.

b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.

c. All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.

d. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

e. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

(1) The cost does not exceed the fair market value at the time of investment.
(2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
(3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
(4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

6. EVALUATION AND REVIEW.

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

Approved by:

OFFICE OF MANAGEMENT AND BUDGET	**STATE INVESTMENT BOARD**
_____	_____
Pam Sharp Director of OMB	David Hunter Executive Director/CIO, RIO
Date: _____	Date: _____

Proposed review and affirmation by the State Investment Board - October 24, 2014

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Bank of North Dakota

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Bank of North Dakota

Major Rating Factors

Counterparty Credit Rating
AA-/Stable/A-1+

Strengths:

- Ownership by the state of North Dakota
- Excellent capital
- Strong asset quality
- North Dakota's strong economy, which a robust oil industry underpins

Weaknesses:

- Concentration in North Dakota
- Large indirect exposure to agriculture
- A risk profile subject to shifting political conditions
- Limited capital flexibility

Outlook

The stable rating outlook on Bank of North Dakota (BND) reflects Standard & Poor's Ratings Services' expectation that BND will continue to perform well, with excellent asset quality and strong capital. We could lower the ratings if the state's economy weakens, or if the bank's asset quality deteriorates significantly. For example, all else remaining equal, we could lower the ratings if nonperforming assets (NPAs) to customer loans plus other real estate owned assets increases to more than 4%, or if losses cause capital to decline such that our risk-adjusted capital (RAC) ratio falls and remains consistently below 10%. We could raise the ratings on the bank's deposits if we raise our issuer credit rating on the state of North Dakota, which guarantees the deposits at BND. We do not anticipate a change in our issuer credit rating on BND.

Rationale

Standard & Poor's bases its ratings on BND on the state of North Dakota's ownership of the bank, and the bank's "strong" (as our criteria describe it) business and risk positions, "strong" capital and earnings, "average" funding, and "adequate" liquidity. The bank's geographic concentration in North Dakota, its indirect exposure to the agriculture industry, and its limited capital flexibility constrain the ratings. The rating includes a one-notch uplift from the company's 'a+' stand-alone credit profile (SACP), based on the application of our criteria for government-related entities (GREs). In our opinion, there is a high likelihood that the state of North Dakota would provide timely and sufficient extraordinary support to BND, if necessary. The 'AA+' rating on the bank's deposits parallels our issuer credit rating on North Dakota. None of BND's other liabilities have an explicit guarantee.

Anchor: 'bbb+' for U.S.-domiciled bank

Our bank criteria use our Banking Industry Country Risk Assessment (BICRA) economic and industry risk scores to determine a bank's anchor stand-alone credit profile (SACP), the starting point in assigning an issuer credit rating. Our

anchor SACP for a bank operating only in the U.S. is 'bbb+', based on an economic risk score of '3' and an industry risk score of '4'.

We view the U.S. as a highly diversified and market-oriented economy, with an adaptable and resilient economic structure. Loan losses continue to abate in line with a gradual economic recovery, and we view the potential for systemwide releveraging as slim. However, the economic recovery remains fragile, and private-sector leverage is still high (nearly 160% of GDP) despite several years of deleveraging. With regard to industry risk, we view the U.S. financial system as innovative, complex and dynamic, and this in turn presents considerable regulatory challenges. We believe the continued prominent role of the government in the U.S. mortgage market and the large shadow banking segment create distortions for the industry in the long term. However, we view funding risk favorably because U.S. banks typically benefit from a high and stable share of core deposits and exceptionally deep capital markets.

Table 1

Bank of North Dakota Key Figures

		--Year ended Dec. 31--			
(Mil. $)	**2013***	**2012**	**2011**	**2010**	**2009**
Adjusted assets	6,604.3	6,155.2	5,375.1	4,029.9	3,959.7
Customer loans (gross)	3,310.6	3,278.5	2,995.2	2,814.5	2,713.6
Adjusted common equity	463.4	446.8	394.2	326.7	270.0
Operating revenues	30.7	106.2	102.8	94.3	87.5
Noninterest expenses	5.5	22.6	21.5	20.4	19.1
Core earnings	25.2	81.6	70.3	61.9	58.1

*Data as of March 31.

Business position: Strong and unique

We view BND's business position as unique but strong. The bank, which is headquartered in Bismarck, was created because of a dearth of lenders in the state willing to support local businessmen and farmers. BND had total assets of $6.6 billion as of March 31, 2013, an 18% increase over last year, mainly because of a significant increase in deposit balances. The bank's deposits are not federally insured, and it has no oversight from U.S. government authorities or banking regulatory bodies. Still, the state is required by law to guarantee all of BND's deposits. Because of that guarantee, we rate the deposits 'AA+', the same as the state. The bank's static deposit base supports its primary role in financing economic development in North Dakota. The bank has only one office and acts as the agent of several state-legislated programs, a lender, a depository for state agency funds, and a correspondent bank to private financial institutions in the state. We believe these roles and functions support our view of BND's integral link to the state's government. We view BND's management strategy as conservative and supportive of the bank's business goals as well as the larger North Dakota community.

The bank continues to demonstrate its importance to the state. BND has helped the state fulfill its resolution to assist with financing to improve the state's infrastructure and has also established various lending programs to support the growth of its communities--namely, to assist with the 2011 flood recovery efforts. Since 2008, oil has boosted the state's growth and is largely responsible for the state's extraordinarily low unemployment rate. North Dakota's oil industry is growing rapidly, and the state is now the nation's second-biggest oil producer, after Texas. The state has

had an influx of residents because of available jobs, which has also strained the infrastructure of western and north central North Dakota. BND's responses help fulfill the bank's mission to promote agriculture, commerce, and industry in North Dakota.

Table 2

Bank of North Dakota Business Position Ratios

		--Year ended Dec. 31--			
(%)	**2013***	**2012**	**2011**	**2010**	**2009**
Deposit market share in country of domicile	0.1	N/A	0.0	N/A	N/A
Total revenues from business line (mil. $)	30.7	106.2	102.8	94.3	87.5
Commercial and retail banking/total revenues from business line	98.4	100.9	100.2	98.3	98.0
Trading and sales income/total revenues from business line	0.0	0.0	0.0	0.0	0.0
Corporate finance/total revenues from business line	0.3	(2.8)	(1.6)	0.1	0.2
Agency services/total revenues from business line	0.1	0.2	0.2	0.2	0.2
Payments and settlements/total revenues from business line	1.2	1.7	1.1	1.4	1.6
Investment banking/total revenues from business line	0.3	(2.8)	(1.6)	0.1	0.2
Return on equity	21.4	18.9	19.3	20.7	23.4

*Data as of March 31. N/A--Not applicable.

Capital and earnings: Strong RAC ratio

We assess BND's capital and earnings as strong, which mainly reflects our RAC ratio, which was 12.8% as of March 31, 2013. Although we view BND's capital flexibility as limited (as a state government instrumentality), the bank's RAC is high relative to its peers we rate similarly, reflecting its moderate-risk asset mix and good earnings performance. The bank routinely pays a large appropriation to the state's general fund, which limits capital generation. Because of the state's strong financial performance, BND will not have to pay any assessments of its earnings for 2013. The bank was also not required to make payments during 2010, 2011, or 2012.

Although the bank did not pay any legislative assessments in 2010-2012, it did provide $30 million to the Rebuilders Loan Program to assist residents with flood recovery efforts in support of its mission in 2012. This payout was repaid to BND in May 2013. Still, we expect that our RAC ratio for BND will remain in the "strong" category, which is 10%-15%, over the next two years. The bank's regulatory capital ratios easily exceed the minimum requirements for a well-capitalized bank with its Tier 1 capital ratio at 16.88% as of March 31, 2013. The quality of capital is strong, consisting mainly of retained earnings and common equity.

BND's earnings are strong, in our view. The bank earned $25 million in the first quarter, a 23% increase from last year. Profits continue to increase because of a strong and growing low-cost deposit base and North Dakota's strong economy relative to that of other states. The net interest margin was 2.04% as of March 31, 2013, down from 2.38% the same time last year. We expect further compression going forward because excess cash is going into lower-yielding securities. The bank is tax exempt, and it does not pay any deposit insurance premiums. With one office, it also does not support the overhead of a large branch network in deposit taking. BND's overhead was a peer-leading 18% as of March 31, 2013. Because of its business and its captive customer base, BND's net interest income makes up the majority of its revenues, with noninterest income accounting for only 6.5% of revenues. We expect that the bank's low-risk balance sheet and the strength of the state's economy will generate sufficient

profitability to support the bank's capital requirements over the medium term.

Table 3

Bank of North Dakota Capital And Earnings Ratios

		--Year ended Dec. 31--			
(%)	**2013***	**2012**	**2011**	**2010**	**2009**
Tier 1 capital ratio	16.9	17.0	17.7	17.1	12.9
Standard & Poor's RAC ratio before diversification	12.8	N.M.	5.7	N.M.	N.M.
Standard & Poor's RAC ratio after diversification	10.8	N.M.	4.9	N.M.	N.M.
Adjusted common equity/total adjusted capital	100.0	100.0	100.0	100.0	100.0
Net interest income/operating revenues	93.5	95.4	95.2	93.5	92.9
Fee income/operating revenues	2.3	3.0	2.4	2.7	3.2
Market-sensitive income/operating revenues	0.3	(2.7)	(1.6)	0.0	0.1
Noninterest expenses/operating revenues	17.9	21.3	20.9	21.6	21.8
Preprovision operating income/average assets	1.6	1.5	1.7	1.9	1.8
Core earnings/average managed assets	1.6	1.4	1.5	1.5	1.6

*Data as of March 31. N.M.--Not meaningful.

Risk position: Strong, with a good relationship with state agencies

We assess BND's risk position as strong. The bank supports its business goals and works with state agencies and private banks to promote its charter objectives. Despite its concentration in one state, BND maintains strong asset quality. Because of agriculture's significant contribution to the state's economy, all loans, regardless of type, are also indirectly related to the agricultural sector. Nonetheless, the state's economy continues to post strong revenue performance, and North Dakota has the lowest unemployment rate in the U.S.

The $3.3 billion loan portfolio consists of student loans (33% of total portfolio), commercial (35%), residential (18%), farm (11%), and state institution loans (4%). As of March 31, 2013, 48% of the total loan portfolio is either fully or partially guaranteed, compared with 52% last year. The majority of student loans (97%) and residential loans (82%) are guaranteed. The company's credit quality was strong, with nonperforming loans, including those 90 days past due, amounting to 2.36% as of March 31, 2013. The majority of the nonperforming loans were guaranteed student loans, reducing the actual exposure to risk because of the high percentage of guaranteed loans. The company had net recoveries, as of March 31, 2013, compared with a very low charge-off ratio of 0.04% one year ago.

Table 4

Bank of North Dakota Risk Position Ratios

		--Year ended Dec. 31--			
(%)	**2013***	**2012**	**2011**	**2010**	**2009**
Growth in customer loans	3.9	9.5	6.4	3.7	3.6
Total diversification adjustment / Standard & Poor's RWA before diversification	18.5	N.M.	15.8	N.M.	N.M.
Total managed assets/adjusted common equity (x)	14.3	13.8	13.6	12.3	14.7
New loan loss provisions/average customer loans	N.M.	0.1	0.4	0.4	0.4
Net charge-offs/average customer loans	(0.0)	0.1	0.2	0.3	0.2
Gross nonperforming assets/customer loans plus other real estate owned	2.4	3.5	3.0	2.3	2.0
Loan loss reserves/gross nonperforming assets	67.1	45.3	58.3	71.2	78.8

Table 4

Bank of North Dakota Risk Position Ratios (cont.)

*Data as of March 31. N.M.--Not meaningful.

Funding and liquidity: Average and adequate

The bank's funding is average and its liquidity is adequate, in our opinion. BND's funding is different from that of other commercial banks. State law requires that all state funds and funds of state institutions deposit with BND. The size of these agencies' deposits makes them "noncore," which primarily consist of large certificates of deposit from local state agencies. These deposits constitute the majority of BND's funding, while core deposits provide roughly 36% of its funding base. Therefore, our common liquidity measure, the loan-to-core deposit ratio, improved from last year but remains high at 147%, down from 202%. However, we recognize the stickiness of the state-sourced captive deposits. Therefore, a more representative ratio (in BND's case) combines the noncore state-sourced captive deposits with the core deposits, improving the loan-to-deposit ratio to an appropriate 64%. The bank also has access to additional funding from the Federal Home Loan Bank of Des Moines, and it can borrow from the Federal Reserve discount window. The bank can also enter into a repurchase agreement using the securities in its $2.6 billion available-for-sale investment portfolio as collateral, which are mostly government agency securities.

Table 5

Bank of North Dakota Funding And Liquidity Ratios

		--Year ended Dec. 31--			
(%)	2013*	2012	2011	2010	2009
Core deposits/funding base	36.4	31.6	33.3	27.8	33.3
Customer loans (net)/customer deposits	146.6	179.5	178.0	269.3	217.7
Long term funding ratio	45.5	43.4	47.0	43.2	47.7
Short-term wholesale funding/funding base	11.3	4.9	6.4	6.9	9.6
Short-term wholesale funding/total wholesale funding	17.7	7.1	9.6	9.5	14.4

*Data as of March 31.

External support: One notch of uplift

Based on our criteria for GREs, we incorporate one notch of uplift into our issuer credit ratings on BND to reflect our view that it's highly likely that North Dakota would provide timely and sufficient extraordinary support to BND, if necessary. We base this view on BND's important role in promoting the state's economic development and its integral link to the state's government. Moreover, the state explicitly guarantees all of BND's deposits, according to the North Dakota Century Code (NDCC §6-09-10).

Additional rating factors: None

No additional factors affect the ratings.

Table 6

Ratings Score Snapshot

Issuer Credit Rating	AA-/Stable/A-1+
SACP	a+
Anchor	bbb+
Business Position	Strong (+1)

Table 6

Ratings Score Snapshot (cont.)	
Capital and Earnings	Strong (+1)
Risk Position	Strong (+1)
Funding and Liquidity	Average and Adequate (0)
Support	1
GRE Support	1
Group Support	0
Sovereign Support	0
Additional Factors	0

Related Criteria And Research

- Banking Industry Country Risk Assessment Methodology And Assumptions, Nov. 9, 2011
- Banks: Rating Methodology And Assumption, Nov. 9, 2011
- Group Rating Methodology And Assumptions, Nov. 9, 2011
- Bank Hybrid Capital Methodology And Assumptions, Nov. 1, 2011
- Rating Government-Related Entities: Methodology And Assumptions, Dec. 9, 2010

Ratings Detail (As Of July 23, 2013)	
Bank of North Dakota	
Counterparty Credit Rating	AA-/Stable/A-1+
Certificate Of Deposit	
Local Currency	AA+/A-1+
Counterparty Credit Ratings History	
06-Dec-2011	AA-/Stable/A-1+
30-Jul-2009	A+/Stable/A-1
08-Jun-2009	A/Stable/A-1
22-Dec-2008	AA/Watch Neg/A-1+
Sovereign Rating	
United States of America (Unsolicited Ratings)	AA+/Stable/A-1+

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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Agenda Item III.C

TO: State Investment Board

FROM: Dave Hunter

DATE: October 24, 2014

SUBJECT: Callan Custody Review

Callan Associates Inc. ("Callan") recently completed a comprehensive review of the trust and custody services provided by the Northern Trust Company ("Northern Trust") to the North Dakota State Investment Board ("NDSIB") and North Dakota Retirement and Investment Office ("NDRIO"). The results of this review are favorable and are detailed in Callan's presentation.

A few excerpts are highlighted immediately below:

"After careful deliberation of the current and future needs of the NDSIB and RIO staff, Callan believes that Northern Trust's current trust/custody deliverables are sufficient and responsive to the Trust's requirements and the fee structure is competitive relative to other providers."

"The consolidated custody feedback by NDSIB's investment managers rated Northern Trust very favorably. Northern Trust maintains a high overall consistency of service to meet the asset servicing and trade processing requirements of the investment managers across all markets and asset classes."

"Northern Trust continues to be a trusted partner able to collaborate with the NDRIO investment, accounting, and compliance staff to meet the daily administration and oversight of the Trusts. Northern Trust has committed a very experienced and capable team with access to the types of resources required to meet the current and evolving needs of the NDSIB."

"Callan recommends the NDSIB and NDRIO maintain the current service structure and accept the custody fee arrangement."

Source: Callan "NDSIB Trust/Custody Services Fee Benchmarking Review" dated October 8, 2014 (page 19)

Callan

October 8, 2014

North Dakota State Investment Board

Trust/Custody Services Fee Benchmarking Review

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October 8, 2014

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EXECUTIVE SUMMARY - Trust and Custody Services Fee Evaluation

Callan Associates Inc. ("Callan") reviewed the Northern Trust Company ("Northern Trust") trust/custody fee schedule executed on 3/31/2014 for the North Dakota State Investment Board's Pension and the Insurance Trusts ("Trusts") and concluded that Northern Trust's trust/custody fee structure is reasonable.

Northern Trust is contracted to provide trust/custody services for the Trusts. The core services include global custody, safekeeping, transaction processing, asset servicing, GASB reporting, short term cash sweep, and investment guideline compliance monitoring. In addition, Northern Trust proactively reconciles with investment managers and provides additional support to the North Dakota State Investment Board's investment, accounting, and compliance staff within the North Dakota Retirement and Investment Office (RIO) as needed.

Northern Trust[1] Profile

Northern Trust Corporation, incorporated on August 23, 1971, is a financial holding company that is a provider of asset servicing, fund administration, asset management, fiduciary and banking solutions for corporations, institutions, families and individuals worldwide. The Company conducts business through various United States and non-United States subsidiaries, including The Northern Trust Company (the Bank). The Company has a network of offices in 18 United States, Washington, District of Columbia, and 16 international locations in North America, Europe, the Middle East, and the Asia Pacific region. Northern Trust organizes its services globally around its two client-focused principal business units: Corporate and Institutional Services (C&IS) and Personal Financial Services (PFS). Two other business units provide services to the two principal business units: Northern Trust Global Investments (NTGI), which provides investment management, and Operations and Technology (O&T), which provides operating and systems support.

Corporate & Institutional Services(C&IS)

C&IS is a global provider of asset servicing, securities lending, brokerage, banking and related services to corporate and public retirement funds, foundations, endowments, fund managers, insurance companies, sovereign wealth and government funds. Asset servicing and related services consists of a range of industry capabilities, including but not limited to: global master trust and custody, trade settlement, and reporting; fund administration; cash management; investment risk and performance analytical services; investment operations outsourcing, and transition management and commission recapture. Client relationships are managed through the Bank and the Bank's and the Company's other subsidiaries, including support from international locations in North America, Europe, the Middle East, and the Asia Pacific region. C&IS also executes related foreign exchange transactions from offices located in the United States, United Kingdom, and Singapore. On June 1, 2011, Northern Trust acquired the fund administration, investment operations outsourcing and custody business of the Northern Trust Securities Services (Ireland) Limited, formerly Bank of Ireland Securities Services (BoISS), from the Bank of Ireland Group. On July 29, 2011, Northern Trust acquired the hedge fund administration unit Omnium LLC (Omnium) from Citadel. As of December 31, 2012, total C&IS assets under custody were $4.4 trillion and assets under management were $561.2 billion.

[1] Summary profile information generated by Callan, including market synopsis from Reuters and Instinet.

Personal Financial Services (PFS)

PFS provides personal trust, investment management, custody, and philanthropic services; financial consulting; guardianship and estate administration; brokerage services, and private and business banking. PFS focuses on high net worth individuals and families, business owners, executives, professionals, retirees, and established privately held businesses in its target markets. PFS also includes the Global Family Office, which provides customized products and services to meet the complex financial needs of individuals and family offices in the United States and throughout the world with assets typically exceeding $200 million. PFS is the provider of personal trust services in the United States, with $446.3 billion in assets under custody and $197.7 billion in assets under management as of December 31, 2012. PFS services are delivered through a network of offices in 18 states of the US and Washington, District of Columbia, as well as offices in London and Guernsey.

Northern Trust Global Investments (NTGI)

NTGI, through various subsidiaries of the Company, provides a range of asset management and related services and products to clients around the world, including clients of C&IS and PFS. Clients include institutional and individual separately managed accounts, bank common and collective funds, registered investment companies, exchange traded funds, non-United States collective investment funds, and unregistered private investment funds. NTGI offers both active and passive equity and fixed income portfolio management, as well as alternative asset classes (such as private equity and hedge funds of funds) and multi-manager advisory services and products. NTGI's activities also include overlay services and other risk management services. NTGI's business operates internationally through subsidiaries and distribution arrangements.

Operations and Technology (O&T)

O&T supports all of Northern Trust's business activities, including the processing and product management activities of C&IS, PFS, and NTGI. These activities are conducted principally in the operations and technology centers in Chicago, London, and Bangalore.

Asset Servicing

Northern Trust's trust/custody and support capabilities are acceptable and in most cases ahead of the competition. Their fund valuation and unitization capabilities have been stellar. One area that is under major enhancement is independent derivatives valuation. Northern Trust continues to retool their technology and on-line platforms to further differentiate their capabilities. The client service team assigned to the Plans has been stable, deep bench strength, and a true working knowledge of the Plans.

Northern Trust is not perfect and can make mistakes in the basic aspect of custody, trade processing and asset servicing (i.e. income collection, tax reclaims, corporate actions, proxy notification, etc.). They experienced stress in their securities lending and cash management programs during the financial crisis; but vowed to refocus their efforts on risk management, transparency and oversight. The key to a successful relationship with Northern Trust is client vigilance, active monitoring, and relationship management through collaborative engagement.

Northern Trust is a key player in the trust/custody arena. Their accounting, reporting, on-line technology, custody, corporate governance support, alternative investment support initiatives, and performance and risk analytical tools are appropriate and acceptable to meet the needs of clients. Northern Trust is known for their client service culture and has shown exceptional capabilities in the areas of compliance monitoring, ease of use of their on-line tools, and regulatory support.

Listed below in Table 1 are the products and services Northern Trust offers to institutional investors. Ratings of competing services offered by other custody providers are listed for comparative reference. Please note that Table 1 lists the services monitored by Callan on an on-going basis.

Table 1
Comparative Custodial Services

Products and Services for Institutional Qualified Tax-Exempt Clients	Northern Trust	BNY Mellon	JP Morgan Chase	State Street
Global Custody	Above Average	Above Average	Above Average	Above Average
Fund Valuation	Above Average	Above Average	Average	Above Average
Corporate Actions	Average	Average	Average	Average
Back-Office Support Outsourcing	Average	Above Average	Average	Above Average
Trade Settlement	Average	Average	Average	Average
Income Collection	Average	Average	Average	Average
Problem Resolution	Average	Above Average	Average	Average
Compliance Monitoring	Above Average	Average	Above Average	Above Average
Daily Valuation	Above Average	Above Average	Average	Above Average
Unitization Capabilities/Experience	Above Average	Above Average	Average	Above Average
Derivatives Processing	Average	Average	Average	Average
Systems and Technology	Average	Average	Average	Average
Web Enable On-line Access	Above Average	Average	Average	Above Average
Performance Measurement	Average	Average	Average	Average
Risk Analytics	Above Average	Above Average	Average	Above Average
Alternative Inv. Support	Average	Average	Above Average	Above Average
Benefit Payments	Above Average	Above Average	Average	Above Average
Governance/Regulatory Support	Above Average	Average	Average	Above Average

Fee Analysis and Methodology

The following is Callan's Trust/Custody Fee Analysis of the Plans aggregate fee structure. The methodology deployed is a Fee Matrix Analysis comparing the proposed fee structure of the Plans relative to the Callan Custody Fee Universe (see table below for fee universe coverage), specifically three-years of completed searches with a focus on most recent searches and fee reviews conducted by Callan with similar size and service profile as that of the Trusts[2].

Table 2
Trust / Custody Fee Analysis

Trust, Custody Searches and Review Clients	Total Number of Clients Advised	Total Assets Advised ($ billions)	Largest Client Size ($ billions)
2009	51	$432	$55
2010	22	$160	$35
2011	19	$295	$125
2012	23	$190	$49
2013*	37	$581	$98

* Statistics for 2013 exclude projects completed for Fund Complexes and Investment Managers. In 2013 Callan also completed three distinct projects for fund complexes with total assets of $780 billion.

Industry information and Callan proprietary market intelligence were utilized where appropriate to maintain consistency of analysis. Please note that each client profile is distinct and trust/custody requirements are driven by their size, operational functionality, investment oversight and risk management focus, service culture to retirees and participants, funding considerations, regulatory reporting and support, and specific asset allocation and investment structure.

The specific steps employed by Callan in the custody services and fee benchmarking study are summarized below:

- *Information Gathering and Document Review* – Callan performed an inventory analysis of services delivered by Northern Trust and as contracted by The North Dakota State Investment Board. The inventory check included core and ancillary custody services. Callan requested copies of the current trust/custody agreement and fee schedule with Northern Trust, including 12 months of fee invoices, to track one year's worth of custody activity. The NDRIO staff was instrumental in providing full documentation as requested by Callan.

- *Custody Survey for Investment Managers* - Callan undertook an investment manager feedback questionnaire to measure the capabilities of Northern Trust with other large institutional providers of trust/custody services required by the NDSIB's Pension and Insurance Trusts. RIO staff

[2] Over the past three years, Callan has conducted custody due diligence searches and fee reviews for over thirty-five (35) public fund, corporate and endowment/foundation clients involving major trust/custody providers (i.e., BNY Mellon, JP Morgan Chase, Northern Trust, and State Street).

was instrumental in this benchmarking effort. Callan compiled survey responses from the investment managers to evaluate safekeeping, asset servicing and trade processing deliverables.

- *Operations Assessment of NDRIO (Bismarck, ND)* – Callan conducted an operations assessment review of the Pension and Insurance Trusts to better understand core and ancillary services delivered by Northern Trust. NDRIO staff detailed the operating structure and the integrated support provided by Northern Trust in order for staff to fulfill their daily administration and oversight of the Trusts.

- *Compile Observations and Complete Benchmarking Study* – Callan, through this report, compiled our observations and provided the requisite analysis of service deliverables and competitiveness of trust/custody fees and costs

Investment Manager Feedback

Investment manager feedback is an important consideration in the evaluation of any custody provider. Close to 80% of the responsibility of a custodian is to process, settle, value and account for securities and trades of investment managers. Thus, the benchmarking review process involved the development of a custody survey for investment managers to rank the leading large institutional global custodian banks that the North Dakota State Investment Board Pension and Insurance Trust's investment managers are familiar with, namely: BNY Mellon, JP Morgan Chase, Northern Trust, and State Street Bank.

Table 3 below summarize the investment manager responses in the areas of administrative services, trade processing, reporting, and valuation and pricing. Thirteen (13) investment managers responded to the NDRIO custody survey. Investment managers were requested to score (1 = poor, 5 = excellent) the five custody providers. Callan consolidated the responses and ranked the scores from best to worst.

Table 3
Investment Manager Feedback

Custodian Bank	Overall Admin. Services	Trade Processing	Accounting	Reporting	Valuation & Pricing	Overall Impression	Total Points	Unadjusted Rank Score	Average Score	Total Number of Observations (78 Possible)	Total Observations / Total Possible Observations	Total Points with Minimum of 50% Total Observations	Adjusted Rank Based on Minimum of 50% Total Observations
BNY Mellon	3.74	3.48	3.98	3.74	3.52	3.91	22.36	1	3.73	69	88%	22.36	1
JP Morgan Chase	2.78	3.05	3.26	3.18	3.43	2.97	18.66	4	3.11	66	85%	18.66	4
Northern Trust Company	2.95	3.33	3.70	3.43	3.42	3.48	20.30	3	3.38	69	88%	20.30	3
State Street Bank and Trust Co.	3.20	3.38	3.55	3.56	3.41	3.61	20.71	2	3.45	62	79%	20.71	2

Based on the survey results provided by the investment managers, BNY Mellon ranked first in each category while State Street ranked second overall followed closely by Northern Trust in third. JP Morgan Chase lagged the competition and placed at the bottom tier. The disparity between the top tier and the bottom tier was very apparent in the survey categories for administrative services, accounting and pricing, where daily valuation discipline is a key requirement.

The accounting and active reconciliation process of BNY Mellon and State Street were considered acceptable by the investment managers. The web enabled capabilities of the custody banks are valuable to expedite the reconciliation process but not all custody banks have these capabilities. Numerous

investment managers also shared their deep and intimate knowledge of the custody community, including which custodians they use for their proprietary funds. Some investment managers subcontract their back-office needs to the large institutional custody banks to help them navigate a very complex and fast evolving marketplace. Custody personnel turnover was noticeable across providers, which impacts problem resolution. Custody banks introduced changes to their client servicing and problem resolution approach by implementing group email and further automation of trade processing via on-line tools. Opinions from investment managers are mixed and it's too early to identify systemic concerns. Refer to the Appendix for detailed comments from the investment managers (see Table A-1).

As mentioned by a number of managers, there is no perfect custodian. However, BNY Mellon, State Street and Northern Trust seem to deliver consistent services with minor issues. Although there is improvement, the large number of issue resolution concerns with JP Morgan Chase was very apparent in the comments section of the survey. In addition, a number of managers noted a subtle deterioration of quality of services from Northern Trust. Overall, a majority of the managers believe that all four custodian banks have the requisite custody capabilities to meet their core requirements.

Based on the consolidated results of the investment manager feedback, Northern Trust continues to meet the specific safekeeping, asset servicing and trade processing requirements of the investment managers.

Trust/Custody Fees

Comparative Fee Matrix (Unit Cost Basis without Securities Lending)

A new Northern Trust fee schedule was executed on March 31, 2014. Callan performed a comprehensive comparison of the old and new fee schedules and concluded that the changes are consistent with industry trends recognizing the increase in line item assets and corresponding reduction of separately managed portfolios. Also, the global fees have been reduced from the previous fee schedule and are now more consistent with industry standards. Table 4 details the unit cost for each service or custody component compared to the Callan Universe Range of Fees.

Table 4
Comparative Unit Costs without Securities Lending

Trust/Custody Fees	Unit Cost	Callan Universe Range of Fees	Callan Comments
Asset Based Fees			
Domestic Assets (Separate Accounts)	0.75 bps	0.5 to 2 bps	Acceptable
International Assets (Separate Accounts)	Tiered Pricing	Tiered Pricing	
Tier 1	0.75 bps	Developed: 2 to 5 bps	Below Range
Tier 2	2.5 bps	Developed: 2 to 5 bps	Acceptable
Tier 3	7 bps	Intermediate: 5 to 15 bps	Acceptable
Tier 4	15 bps	Intermediate: 5 to 15 bps	Acceptable
Tier 5	35 bps	Emerging: 15 to 50 bps	Acceptable
Tier 6	50 bps	Frontier: 15 to 50	Acceptable
Single Line Asset Holdings	$1,200 Per Asset	$0-$1,500 Per Asset	Acceptable
Account Based Fees			
Separately Managed Account - Domestic	$1,500 per acct	$1,000 to $5,000 per acct	Acceptable
Cash Account	$1,000 per acct	$100 to $500 per acct	Above the Range
Single Line Item Account	$1,000 per acct	$500 to $2,500 per acct	Acceptable
Separately Managed Account - Global	$2,500 per acct	$1,000 to $5,000 per acct	Acceptable
Transaction Based Fees			
Domestic Trades	$0 per transaction	$5 to $12 per transaction	Below Range
International Trades (Separate Accounts)	Tiered Pricing	Tiered Pricing	
Tier 1	$0 per transaction	Developed: $10 to $25 per	Below Range
Tier 2	$8 per transaction	Developed: $10 to $25 per	Below Range
Tier 3	$15 per transaction	Intermediate: $25 to $50 per	Below Range
Tier 4	$25 per transaction	Intermediate: $25 to $50 per	Acceptable
Tier 5	$25 per transaction	Emerging/Frontier $50 to $150	Below Range
Tier 6	$35 per transaction	Emerging/Frontier $50 to $150	Below Range
3rd Party FX Execution (Non-Custody FX)	$25 per transaction	Waived to $50 per transaction	Acceptable
Financial Reporting Support (GASB)	Included	Waived to $5,000 per non-standard report	Acceptable

Trust/Custody Fees	Unit Cost	Callan Universe Range of Fees	Callan Comments
Class Action Processing			
Securities Class Action Processing	2% of proceeds or max of $250 per event	Waived to 3% of proceeds without cap per event	Acceptable
Overdraft Charges			
Daily Overdrafts or Overdrawn Account	Northern Trust Prime Rate	Fed Funds + 100 to 250 bps	Within Industry Practice
Post Trade Investment Compliance Monitoring			
Investment Compliance Monitoring – Premium Level (Separate Accounts)	Flat Fee $20,000 per year	$1,000 to $3,500 per account ($15,000-$25,000 minimum fee)	Acceptable and Within Range
Cash Sweep			
STIF (Daily Cash Balance)	12.5 bps	10 to 15 bps	Acceptable

Ancillary Services Cost Table

Ancillary Services Fees	Unit Cost	Callan Universe Range of All in Fees	Callan Comments
Short Term Cash Sweep			
Short-term Cash Management	Qualified Collective STIF 12.5 bps Pension Average Cash in 2013 is $45 mil @12.5 bps = $56,250 Non-Qualified NT Government Fund 20-30 bps Insurance Average Cash in 2013 is $75 mil @ 25 bps = $187,500	STIF (Qualified) 10 to 15 bps MMF (Non-qualified) 16 to 59 bps	Acceptable and within range of the Callan Fee Universe
Estimated Earned FX Spread			
Pension Trust[3]	$817,089	FX spread estimated at 10 bps	Estimates provided for illustrative purposes only.
Insurance Trust[4]	$262,504		
Total	$1,079,593		

[3] Assume $1,276,701,719 international securities in separate accounts at 50% turnover = $638,350,859. Then $638,350,859 x 2 for roundtrip trade = $1,276,701,719. At 64% (1,359 Custodian FX Transactions / 2,123 Total FX Transactions) of $1,276,701,719 executed by custodian bank = $817,089,100. Estimated FX spread at 10 bps x $817,089,100 = $817,089 in annual revenue to the custodian bank.

[4] Assume $673,087,603 international securities in separate accounts at 50% turnover = $336,543,801. Then $336,543,801 x 2 for roundtrip trade = $673,087,603. At 39% (1,206 Custodian FX Transactions / 3,080 Total FX Transactions) of $673,087,603 executed by custodian bank = $262,504,165. Estimated FX spread at 10 bps x $262,504,165 = $262,504 in annual revenue to the custodian bank.

Asset Based Fee

The Northern Trust asset based component of the custody fee for Tier I countries (which now includes: US, Canada, Euroclear, Ireland and U.K.) is 0.75 bps and falls in the lower half of the average of other providers. Previously, only US was included in NT's Tier I and the corresponding fee was 1.25 bps. These changes translate to fee savings estimated to be $466,236 per year based on current asset and transaction levels. It should be noted that global asset charges can be inordinately high especially in emerging markets. This backdrop makes Northern Trust's proposed reduction of international fees advantageous to NDSIB over the previous fee schedule. Northern Trust also elected to maintain the exclusion of the market value of "non-custodied" assets from the asset based fee calculation; however, North Trust will now apply a charge per single line asset holding for commingled funds and other line items. This fee component results in an annual increase of $62,400 but is consistent among other custodians due to the industry trend of increasing the number of line item assets versus separate account assets. Overall the domestic and international asset based fees are within the range of the Callan Fee Universe and are fair and reasonable. The aggregate impact of the reduction of asset based charges is the single largest contributor to the fee savings.

Account Based Fee

The account based fees for separate domestic and single line item accounts doubled over the previous fee schedule contributing to an increase of $39,500 annually, but are still acceptable and within the range of the Callan Fee Universe. The account based fees for separate global accounts was reduced by half accounting for annual savings of $27,500. The quoted fee for cash accounts is above the range but minimally impact the overall fees. The other line item costs are consistent with other charges imposed by custodian banks.

Transaction Based Fee

Northern Trust maintained the previous transaction based fees for Tier I countries at $0 in the current fee schedule. As noted in the comments above regarding asset based fees, Tier I now includes Canada, Euroclear, Ireland and UK which were previously categorized as Tier II and subject to higher transaction fees. This is beneficial to the NDSIB investment pools as transaction fees for these additional Tier I countries are now $0. Please note that typical industry practice is to charge transaction based fee for both domestic and international transactions. Overall, the unit cost per transaction for each country tier was reduced which accounts for $222,192 in savings annually and is below the range of the Callan Fee Universe.

Other transaction based fee components are reasonable, namely the 3rd Party FX Execution (non-custody FX or FX not executed by Northern Trust). The $25 per transaction fee is within range as Northern Trust is still required to process such 3rd party FX activity in the form of cash movements (wires) to ensure settlement of trades.

Class Action Processing Fee

This fee is part of a new fee structure being adopted by custodian banks given the level of filings required to submit a class action claim form. Northern Trust is not alone in introducing such a fee for class action processing events. Callan believes that class action processing is still a corporate action and should be part and parcel of custody and should be waived. However, the level of manual process and demands by the claims administrator often results in additional overhead for Northern Trust and other custody banks. The fee is acceptable as long as it is capped at $250 per event as is the case in the new fee schedule.

Overdraft Charges

Overdraft charges are incurred when failed trades occur or cash balances are not enough to cover purchases. Northern Trust's daily overdraft charge for overdrawn accounts is set at Prime Rate. Although Northern Trust provides for contractual settlement to help investment managers monitor their cash balances, an overdraft leads to a cost of capital hit on the balance sheet of Northern Trust. It is customary for custodian banks, like Northern Trust, to impose such a penalty to discourage managers from using the bank's balance sheet to effectuate their investment decision. Northern Trust's overdraft charges are reasonable and consistent with market practice.

Post Trade Investment Compliance Monitoring

The Northern Trust fee for this service remains the same as the previous fee schedule at $20,000 annually and is acceptable and within the Callan Fee Universe range. Custodians typically charge $1,000 to $3,500 per separate account (depending on level of complexity) with a minimum annual fee ranging between $15,000 to $25,000.

Cash Sweep and STIF

Northern Trust has a STIF expense ratio of 12.5 bps applied to idle cash balances. The fee is within range of the Callan Fee Universe of 10 to 15 bps for clients with $25+ million in average cash balance.

Please note that Short Term Investment Fund (STIF) is a collective trust vehicle subject to OCC Reg 9 investment guidelines, which are similar to SEC Rule 2a-7 investment guidelines for regulated Money Market Funds. STIF and Money Market Funds are not FDIC insured and not risk free. In general, STIFs have a lower expense ratio or management fee compared to Money Market Funds.

Foreign Currency Execution (FX)

Northern Trust offers – separate and apart from its basic custodial services – an extensive array of options for executing foreign exchange transactions that are designed to support clients and investment managers' currency management needs. Northern Trust, through their NTGI affiliate, supports all trade types, including foreign asset securities settlement, income repatriation, withholding tax reclaims, corporate actions, redemptions, trades in restricted and generally illiquid markets, and any other trade type that would ordinarily be required to support a large, complex custody relationship. All trade types and amounts under Northern Trust's standing instruction program are priced in a consistent manner depending upon which program is selected by the client and/or investment manager. Please note that such fees are implicit costs and a source of additional revenue to Northern Trust.

FX execution falls under the investment discretion or discretionary authority of an Investment Manager. Consistent with normal trading, the investment manager is entrusted to seek best price for buying or selling securities (and the corresponding FX) for the sole benefit and best interest of the plan and its beneficiaries. Investment managers ultimately determine "bad or good" execution because of the impact to performance over time. Nothing has changed with this investment manager fiduciary responsibility.

The FX market is a principal (or conducted by market makers) and not done through an agency basis. There is no open exchange (i.e., NYSE, Chicago Merc, etc.) to "see through" the transactions. Thus, one cannot say outright that an FX transaction is good or not. Given that it is a principal market, there is really no acceptable transparent way to evaluate "best execution" for any one transaction. However, Callan believes that it would be difficult for an investment manager to have good relative returns with consistent poor execution.

Given that FX falls under the investment discretion of the investment manager, an investment manager may want to execute with a custodian by choice either for convenience or expediency.

- For example, certain countries such as Taiwan, India, Brazil, etc., require by law or regulation that FX be executed by the sub-custodian bank of the global custodian. Therefore, it may be impossible to seek best price when the market dynamics are restricted. This is the case for numerous developing and emerging markets classified as restricted currencies.

- If a trade fails to go through because of a late or missing FX, there are far bigger costs other than FX execution. The manager may be unwilling to shoulder the opportunity cost which is calculated by tracking error/√250 trading days. In addition overdraft charges may be imposed. Current overdraft fees are around Fed Funds Rate + 250 bps. The combined impact of both opportunity costs and overdraft charges are far more expensive for the investment manager and for that matter the client.

- Another important issue for plan sponsors revolves around contractual settlement. Custodian banks offer contractual settlement because it provides certainty in the books for Full Accrual Trade Basis Accounting. Technically, this means that the bank is using its balance sheet to validate that the transaction of the investment manager is money good – even though funds have not cleared to settle the transaction. In short, a client and its investment manager receive a temporary line of credit without penalties or the cost of capital is at the expense of the custodian bank. Ultimately, this money good guarantee is factored into the underlying FX transaction. The bank will not offer contractual settlement for free unless it can recoup the cost of extending its balance sheet for the convenience of a client and their investment managers.

Callan believes that the custody industry has room to improve regarding transparency and provision of better disclosure reporting. We encourage our clients to press their custodians regarding transparency and disclosure, Investment managers have to ascertain competitive pricing for both security and foreign currency trades. Please note that the intensity of the FX litigation has forced the custody industry to develop templates for reporting and disclosure purposes. Such templates may or may not meet the requirements of regulators and the respective client pools of the custodian bank. Thus, reporting and disclosure initiatives are subject to change.

Other Sources of Fee Revenue

In addition to the explicit fees/costs listed above, Northern Trust earns additional fee revenue (implicit costs) from other sources related to their handling of assets under custody. Sources of additional revenue are (1) Spreads from Foreign Exchange[5] Execution for trade settlement, dividend repatriation, and normal course money movement; and (2) Commissions and/or Spreads from Broker Trades handled by Northern Trust – company stock, portfolio rebalancing, liquidations and restructuring, and transition management. NDRIO acknowledged that the NDSIB investment pools do not currently participate in securities lending and that the investment pools benefit from relationship pricing with the index funds managed by NTGI.

Aggregate Cost

The custody and asset servicing industry is undergoing tremendous earnings pressure due to a multitude of factors. The low interest rate environment continues to depressed yields on cash and short term funds. Regulatory environment and compliance considerations have exacted increased levels of

[5] Foreign Exchange execution is a dealer or principal market and there is no distinct exchange for buyers and sellers to post execution; and simultaneously determine spreads. The market is comprised primarily of various FX desks involving commercial banks, investment banks, broker/dealers, investment management houses, and public/corporate treasury desks. Thus, currency execution is very opaque and often misunderstood to what is best execution. Plan sponsors are advised to reach out to their investment managers (who ultimately have investment discretion) and ask if they utilize a competitive bidding on FX for both standing instructions and transactional buys & sells - currency settlements. In addition, plan sponsors should require a report from their custodian banks regarding volume of FX trades executed by the custodian bank, market value of currency transactions, and spreads above or below the WM fixing rate or Inter Bank Rate. Please note that certain intermediate and emerging countries only allow for FX trades executed by custody banks for tracking purposes

administration and overhead. Revenues from securities lending and foreign exchange trading are down 30% to 50%, and the market is not expected to come back and current conditions are expected to be the new normal. Asset allocation changes, mainly more money being allocated to commingled funds and line items (such as passive index funds and the alternative investment space), introduced a tectonic shift on the fee business model of custodian banks who traditionally thrive on separate accounts and transactional volume to charge fees. Custodian banks are resorting to fee hikes to bridge the gap in revenue. Callan observed that over the last two years, custodian banks increased fees by 25% on the average.

Table 5 below summarizes the cost impact of the new Northern Trust fee schedule compared to the previous schedule as well as comparing against the Callan Fee Universe range. The recently implemented fee schedule equates to a 43.54% fee reduction or approximately $609,528 emanating from adjustments in fees involving asset based fees, global transactions and account based fees. Please refer to Appendix Table A-2 for actual pro-forma calculations.

Table 5

North Dakota Retirement and Investment Office
Pro-Forma Fees Analysis[6]

Fee Category	Current (fee schedule as of April 2014)	Previous (estimated fees assessed in 2013)	Difference	% Change	Callan Comments
Custody					Decrease due to the re-categorization of Tier I countries, reduction of both domestic and global asset based fees as well as global transaction fees. Some fees such account and per line item charges increased but were offset by the reductions note above. Callan believes that fees are reasonable and consistent with industry practice.
Pension Pool	$414,430	$758,364	- $343,934	-45.35%	
Insurance Pool	$355,969	$621,563	-$265,594	-42.73%	
Total	$770,399	$1,379,927	-$609,528	-44.17%	
Post Trade Compliance Monitoring Reporting	$20,000.00	$20,000.00	$0	0%	Fees for this service remained unchanged. Callan believes that the fees are reasonable and within the range of the Callan Fee Universe.
TOTAL ANNUAL FEE	$790,399	$1,399,927	-$609,5258	-43.54%	Substantial Fee Reduction of 43.54% places the overall fees within the acceptable range of fees observed by Callan.

[6] Estimated fee calculations based on actual 2013 transaction volumes provided by Northern Trust and Market Value and Account Structure as of 12/31/2013. Estimated fees are for illustrative purposes only and will not match actual 2013 fees due to adjustments in quarterly market value and asset composition variances upon which invoices are calculated.

Securities Lending[7]

Securities Lending is an optional mechanism that provides liquidity, settlement efficiency, synchronizes derivatives with the cash markets, and helps central banks to effectuate monetary policy. Securities lending is a critical component to a well-functioning capital markets. Firms borrow securities to complete securities transactions and to cover fails (securities sold but not available for settlement), short sales, arbitrage opportunities and other financing needs. Callan firmly believes that risk management takes precedence over revenue generation. Lending agents can have huge blocks of securities out-on-loan and is charged to reinvest large amounts of cash collateral on any given day. Lending agents can be a Sponsor's single largest investment manager. Securities lending has asymmetric risk, meaning that cash collateral and non-cash collateral losses are skewed to the disadvantage of a client and not the provider. Securities lending programs focused on risk management are superior to those based on revenue-maximization.

Albeit securities lending should be treated as an investment management function and can add value, it takes a backseat from the interest of investment managers and the plan/fund itself. Remember that securities lending is an ancillary process to generate incremental revenue. Revenue estimates are subject to a myriad of variables, such as:

- changes in economic, interest rate, credit, liquidity & market conditions,
- portfolio turnover of the security holdings,
- asset allocation and manager changes,
- portfolio structure,
- statutory changes which includes state, federal, securities law and Federal Reserve guidelines can have an impact,
- policy limits and active proxy voting,
- cross border changes in regulatory environment, market practice, tax and dividend treatments,
- actual cash collateral reinvestment guidelines of the plan sponsor may be inconsistent with a securities lending provider's program structure,
- potential impact of bankruptcies and fraud,
- organizational changes (program and personnel structure) within the securities lending provider can affect both product and performance.

Institutional investors or funds taking a conservative stance cannot be criticized for prioritizing risk management before revenues when it comes to securities lending. Callan believes that securities lending revenue estimates should be considered as estimates only; custodians will not guarantee revenue projections. In light of the disparity in the securities lending revenue estimates, we believe it would be best to use the projections as the probable range of potential outcomes. However, it is dangerous to rely on any specific revenue estimate. Revenue estimates frequently depend on assumptions of interest rate spreads, utilization, and market conditions that may not be true going forward. It has always been Callan's policy to warn against using securities lending revenue estimates as a determinative decision variable. Securities lending involves risks.

Northern Trust is a key player in the securities lending industry. They started securities lending in 1981 and commenced lending of international securities in 1988. Their success hinges on client service and extracting the most value from securities out on loan.

[7] The following analysis was based on the proposed Northern Trust Fee Agreement (Proposal from April 1, 2014 to March 31, 2017) and the follow-up Securities Lending Questionnaire Response submitted by Northern Trust dated July 10, 2014.

Table 6
Securities Lending Overview

Securities Lending – Custody Based Program	Northern Trust	Callan Securities Lending Industry Observations
Securities Lending Discussion – Questionnaire Response	Commendable Response and Disclosure, especially Risk Management Tools and Program Structure. Able to provide enhanced levels of indemnification – Operational, Borrower Default and indemnified REPO Program.	The industry is undergoing a significant change in terms of transparency, disclosure, and overall managing client expectations. Northern Trust's response to the Questionnaire is consistent with other proposals seen by Callan for other clients.
Organizational Issues	Program is subject to pending and threatened litigation Issues; No major changes at Management rank.	Since the Financial Crisis and the resulting losses experienced by the industry in general, securities lending agents (whether custody or 3rd party agents) are under tremendous scrutiny regulators and are threatened with potential litigation and class action suits.
Total Lendable Base	$842 billion for 370 clients	Custodian based Securities Lending Programs dominate the total lendable base sought by borrowers. Northern Trust is neither the lowest nor highest in terms of inventory of lendable securities.
Operational Considerations	Allocation of lending and queuing process is acceptable. Mark to Market and Collateralization Levels are acceptable. Full Transparency is Available Daily. Consistent with ERISA and Federal Requirements.	Operational Processes is consistent with the Industry.
Securities Lending Program Structure, and Indemnification[8]	Cash Collateral Reinvestment Losses both Credit (Issuer Default) and Liquidity (Mark to Market) during the Financial Crisis Program has been retooled for the better. Provided relief to affected clients through capital support, tightening of cash collateral reinvestment guidelines, applied a fair "staged withdrawal" process, and overall improvement in risk management. Indemnification – Borrower Default and Operational Negligence Can provide Collateral Reinvestment Risk Indemnification in US Treasury REPO Program.	A vast majority of the industry experienced losses and strains in their securities lending programs. The risk management improvements introduced by Northern Trust are consistent with other providers brought by the aftermath of the Financial Crisis. Indemnification – The standard from of indemnification is limited to Borrower Default. Northern Trust is proposing additional levels of indemnification to North Dakota.

[8] Please refer to the Response to the Questionnaire for specific language regarding limits to indemnification. Northern Trust is able to provide borrower default indemnification and cover operational negligence. However, it would be prudent for North Dakota to verify if the following areas are covered in the Borrower Indemnification clause, namely: (1) Borrowers files for bankruptcy for whatever reason; (2) Failure to recall securities before contractual settlement date for whatever reason; (3) Failure to secure additional collateral and margin requirements; (4) Failure to receive dividends, distributions and all economic benefits of ownership; and, (5) Immediate use of Non-Cash Collateral in lieu of Borrower Bankruptcy. In addition, indemnification specific to operational negligence and trade settlement risk needs verification. (Please note that Callan Associates is not in a position to provide a legal opinion with respect to the coverage, language and limitations of the indemnification clauses provided by the candidate firms.)

Securities Lending	Northern Trust	Callan Securities Lending Industry Observations
Duration Mismatch [9]	Typically around 30 to 45 day GAP	Depending on agent provider risk appetite and client driven parameters, industry duration mismatch could range from 1 to 60 day GAP
Utilization Rate[10] (Generic Program Approach using SEC 2a-7 Guidelines) US Equities US Corporate Bonds US Government Bonds Non-US Equities Non-US Fixed Income	 10% 9% 59% 11% 22%	Northern Trust's utilization rates are consistent with industry metrics and in most cases better than others in US Govt and Non-US Equities.
Cash Collateral Management	Credit Analysis is Centralized (Enterprise Risk Mgmt Approach) Cash Management and Credit Analysis are provided by NTGI. Overnight Options are Available. Can manage both Separate and Commingled Funds.	Consistent with Industry Best Practice in terms of Enterprise Risk Management Approach and flexibility to accommodate client requirements for either separate or commingled funds in the management of cash collateral.
Securities Lending Revenue Sharing Arrangement	80/20 Applies to both positive & negative income except for collateral reinvestment losses Cash Collateral/Loan Admin Fee of 1 bps. (cost recovery fee)	Range can be from 70/30 to 90/10. Applies to both positive & negative revenue except for collateral reinvestment losses Cash Collateral and Program Fee – waived to 5 bps
Will Contract as a Fiduciary?	Yes, but subject to negotiation.	Negotiated on a Client by Client Basis.

[9] Duration mismatch is said to be controlled when the duration of the loan (liability) and the duration of the collateral reinvestment (asset) are 1 day or what is classified as fully matched. The duration of the liability is by default overnight or 1 day because it can be terminated at will, while the duration of the collateral reinvestment can vary from 1 day to 6 months. The difference between the duration contributes to gap risk. Supposedly, a shorter duration mismatch lessens gap risk. Thus, a higher duration mismatch means a higher level of gap risk. Duration mismatch statistics also provide a glimpse of the usage of term loans, which are customarily greater than seven days and can impact overnight liquidity.

[10] Utilization Ratio (also called Lending Ratio or Penetration Ratio) is equal to "average out on loan" divided by "average lendable base." This ratio shows the ability to lend securities with the highest utility or penetration in the marketplace. It is common industry knowledge that the higher the ratio the better for plan sponsor clients. Please note that past performance does not guarantee future results. In addition, the statistics provided by the Northern Trust are specific to their standard or generic program structure. The statistics (i.e., utilization ratio and spreads) generated by Northern Trust may not necessarily equate to the same level of results due to client specific restrictions - portfolio structure and investment policy/guideline requirements. General collateral lending (low demand oversupply securities – large cap equities and fixed-income) has been the casualty of the credit crisis. The migration to intrinsic lending (high demand hot securities – small/mid-cap and international equities) could be more of the norm going forward.

Review of Northern Trust Proposal

Callan reviewed the Northern Trust Securities Lending Proposals as specified in the Fee Agreement April 1, 2014 through March 31, 2017, namely: Proposal #1 – 80/20 Split; Proposal #2 –Fee Based Lending; and Proposal #3 – Client Directed Lending[11]. If the NDSIB does decide to implement securities lending and is comfortable with the underlying risks inherent in securities lending, Callan recommends that Proposals #2 and #3 should not be pursued given the economics, potential risks, and operational burden would not be favorable to the NDSIB. Proposal #1, the common industry approach, with an 80/20 split is reasonable as long as the program structure is an overnight intrinsic indemnified US Treasury REPO with the commensurate indemnity for operational and borrower default risk as specified in Northern Trust's Response to the Securities Lending Questionnaire (dated July 10, 2014). Callan analyzed the economics and risk/reward trade-off which is summarized in Table 7 below.

Table 7
Economic and Risk / Reward Trade-offs

Revenue Estimate	Overnight Intrinsic –Indemnified US Treasury REPO Mandate (Risk Averse)	SEC Rule 2a-7 Mandate (Maximum Allowable Risk/Reward Trade-off)
Insurance	Lendable Assets = $1,997,770,622 Assets on Loan = $25,138,416 Net Revenue = $340,558 **Risk/Reward = 1.35 bps**	Lendable Assets = $1,997,770,622 Assets on Loan = $452,007,444 Net Revenue = $636,622 **Risk/Reward = 0.14 bps**
Pension	Lendable Assets = $1,512,961,619 Assets on Loan = $37,268,317 Net revenue = $417,636 **Risk/Reward = 1.12 bps**	Lendable Assets = $1,512,961,619 Assets on Loan = $170,802,725 Net revenue = $583,243 **Risk/Reward = 0.34 bps**
TOTAL	Lendable Assets = $3,510,732,241 Assets on Loan = $62.406,733 Net Revenue = $758,194 **Risk/Reward = 1.52 bps**	Lendable Assets = $3,510,732,241 Assets on Loan = $622,810,169 Net Revenue = $1,219,866 **Risk/Reward = 0.20 bps**

From a risk/reward trade-off of net earnings relative to *assets on loan and at risk*, a securities lending mandate with an overnight intrinsic approach is favorable. An intrinsic value program mandate generates 1.52 bps, compared to the 0.20 bps of SEC 2a-7 maximum allowable risk parameter mandate. Bottom line, to generate $758,194 in net revenue, $62,406,733 in assets would be at risk; while to generate $1,219,866 in net revenue, $622,810,169 of assets would be at risk. Chasing the additional $461,672 income of the more aggressive program presents greater risk to NDSIB than Callan believes is justified on a risk/reward basis.

[11] Client directed lending is also known as unbundled or a 3rd party lending agent other than Northern Trust. The decision to unbundle or bundle securities lending with custody is driven by two factors: alpha generation (maximize revenue), or operational and cost considerations. If the objective is to maximize revenue or alpha generation to enhance performance, unbundling securities lending from custody is a viable option. Certain public funds believe that unbundling securities lending custody focuses on "best in class" providers – core competency. A common thread to those plans who unbundle is the need to seek a performance boost for internally managed portfolios where performance based compensation is tied to a benchmark. Typically, clients who pursue this type of approach have dedicated personnel handling securities lending and with functional risk management tools to monitor the program. Public funds who are risk averse or risk management is paramount, the approach has been to de-risk the program through a single provider. The sole securities lending agent is either through custody or a 3rd party provider depending on who can effectively de-risk the program regardless of revenue stream. The overarching criteria for selecting either a custody or 3rd party, is risk management. The entity who can provide the highest level of indemnification in the areas of borrower default, operational negligence, and collateral reinvestment risks is the preferred provider. For a majority of public funds, securities lending is an "ancillary" function and an important source of funds to offset operations and administrative costs. The decision to unbundle hinges on this statement – "If a 3rd party securities lending agent cannot generate greater or equal revenue stream (within clearly defined risk parameters) than the custodian, and the 3rd party introduces undue operational/administrative oversight burden on staff, then unbundling becomes an unwarranted and expensive endeavor." The decision to bundle or unbundle securities lending from custody is very client specific. North Dakota may want to review their lending profile and risk tolerance in order to determine the right approach, and whether to pursue securities lending going forward.

Conclusion

After careful deliberation of the current and future needs of the NDSIB and RIO staff, Callan believes that Northern Trust's current trust/custody deliverables are sufficient and responsive to the Trusts' requirements and the fee structure is competitive relative to other providers. The 43% reduction in Northern Trust's proposed fee places it within the acceptable range of the Callan Universe of Fees.

Northern Trust is contracted to provide trust/custody services for the NDSIB's Pension and Insurance Trusts. The core services include global custody, safekeeping, transaction processing, asset servicing (settlements and income processing), financial reporting, investment accounting, class action processing, proxy notification, short term cash sweep, investment manager reconciliation processes, and support of regulatory reporting requirements of NDSIB.

The consolidated custody feedback by NDSIB's investment managers rated Northern Trust very favorably. Northern Trust maintains a high overall consistency of service to meet the asset servicing and trade processing requirements of the investment managers across all markets and asset classes.

Last but not least, Northern Trust continues to be a trusted partner able to collaborate with the NDRIO investment, accounting, and compliance staff to meet the daily administration and oversight of the Trusts. The size and scale of the Trusts necessitate a close working relationship between NDRIO staff and trust/custody bank. Northern Trust has committed a very experienced and capable team with access to the types of resources required to meet the current and evolving needs of the NDSIB. Northern Trust is a key player in the delivery of custody and related services to large institutional investors.

Given the competitiveness of Northern Trust's fees and the partnering approach they have cultivated over the years, Callan believes the relationship is beneficial to the North Dakota State Investment Board and its operating staff at NDRIO. Callan recommends the NDSIB and NDRIO maintain the current service structure and accept the custody fee arrangement.

Investment Manager Feedback - Comments

Callan compiled the comments shared by the investment managers regarding Northern Trust and large institutional custody providers (BNY Mellon, JP Morgan and State Street). The table below includes comments from investment managers included in the survey for The North Dakota State Investment Board Pension and Insurance Trusts.

Table A-1
Detailed Investment Manager Feedback

Manager	Investment Manager Comments
Manager A	• Custody banks do not proactively reconcile positions and transactions on a daily or monthly basis. We have a formal reconciliation process for daily cash, transactions and positions as well as full market value reconciliation on a monthly basis. • BNY Mellon is the custodian of our comingled fund products. • BNYM quality of responses is excellent. Near total automation for BNYM system, poor for legacy BNY INFORM systems. • JPM rigid systems with poor response time. Lacks accountability with errors. • No noticeable changes with Northern Trust. Low fail rate. • State Street lack of response/extended response time on issues. Manual processing is lacking oversight.
Manager B	• Manager performs comprehensive formal month-end reconciliation. Daily positions, cash and cash sweeps reconciled with custodians. • State Street is the custodian of our commingled fund products. • The addition of more JPM accounts to CLS in 2013 has mitigated previous unmatched trade issues.
Manager C	• All of the above banks reconcile cash daily with us and accounting positions at least monthly. • Top banks should be enabled for SWIFT, FX CLS and direct execution with FX desks for EM FX.
Manager D	• Additional comments not provided.
Manager E	• All of the custodians identified proactively reconcile positions and transactions for select accounts with us on a monthly basis. • Wells Fargo is currently the custodians of the firm's commingled products. • The further consolidation of legacy BNY Mellon platforms has improved many functions including data research and issue identification and resolution. • We have engaged in regular monthly service reviews to address specific issues and concerns. We recently conducted a thorough service review to address recurring areas of concern. • Northern Trust recently transitioned service teams and we have noticed that response times and service have deteriorated to some extent. • In internal reviews of the various custodians, State Street is consistently highly rated in overall capabilities. We have noticed that their reporting website has many advanced functions that they continue to improve regularly.
Manager F	• Our firm works with Northern Trust Investment Operations Outsourcing to handle daily back office reconciliations of cash and positions with all four custodian banks.

Manager	Investment Manager Comments
	• Northern Trust is the custodian of our firm's commingled funds. • BNY Mellon continues to be a top tier custodian. • We view JP Morgan as the weakest custodian in this group. • Northern Trust continues to be a top tier custodian. • State Street continues to be a top tier custodian.
Manager G	• State Street is the custodian of our firm's commingled funds. • BNY Mellon - consistently good performance. • JP Morgan - Inconsistent good performance. Very slow, but steady improvement. • Northern Trust – Poor communication and issue resolution. Recent personnel changes have been positive. • State Street – Consistently good performance.
Manager H	• We actively perform monthly asset reconciliations across all four custodians. • We utilize BNY Mellon as the custodian bank for our commingled funds. • BNY Mellon maintains a good steady process with their custody and accounting business. We have consistently been able to effectively communicate and meet expectations with this custodian to support our business. • We faced a few challenges this past year with supporting our everyday business with JP Morgan. We felt the impact when a change in relationship manager occurred. However, we raised our concerns at a senior level and we are closely working with this custodian to improve their overall service. • We faced a few challenges with this particular relationship at Northern Trust which were corrected once we raised them through our senior management team. There are a few areas around cash reconciliation, and improved support with coverage that we have been working through. • State Street has gone through some internal restructure which has benefited the relationship. In areas where improvement is needed such as accounting, our message is very clear each month through our custodian relationship calls. We continue to monitor their improvement.
Manager I	• As part of our standard process, we also maintain open and transparent dialogue directly with custodian dedicated relationship teams through periodic service calls and global reviews. • The four custodians listed on your survey are responsive to feedback and we have no issues to highlight. • JP Morgan, BNY Mellon and State Street are the contracted custodian bank for our commingled products.
Manager J	• Additional comments not provided, but manager would be glad to discuss at your convenience.
Manager K	• No proactive recon by any of these custodians. • State Street is the custodian of our commingled products. • BNYM is consistently one of the best custodians we work with regularly. • JPM is making an effort to modernize their website and reporting but it is largely just a cosmetic change. • Northern Trust response times on inquiries have gotten noticeably longer in the past year. • State Street is consistent top performer.
Manager L	• The above custodians do not proactively reconcile positions and transactions with us. • Although we would give Northern Trust's international capabilities average ratings, for domestic space we are quite satisfied. • Currently our commingled products are all custodied at Brown Brothers Harriman.

Manager	Investment Manager Comments
	• We are very pleased with our BNYM relationship. Our primary client service team is responsive, knowledgeable, and helpful. Good website functionality/reporting access. No changes or complaints. • For the most part, JPM teams have been pretty nice. However, the turnaround time for long standing requests (e.g. report customization) has been long. The trade support team and primary custodial contacts have been very helpful and responsive though. • In the domestic space, we are generally pleased with our Northern Trust client service team. However, we have ongoing issues with them in the international space. Timeliness to emails and trade amendments has been a problem and general knowledge of the EM space has been limited. • Over the past year, State Street's service has deteriorated. We deal with two different teams at SSB and while one has been responsive and helpful, the other team has been the exact opposite. We have had trouble getting timely replies to email, getting trade amendments processed and also getting any request completed.
Manager M	• The custodians provide positions and transactions daily to our reconciliation tool via SWIFT messages. • Our commingled funds utilize JP Morgan as trustee and custodian. • BNYM always responds timely to inquiries on outstanding breaks with their accounts. Responses are accurate and contacts are friendly, professional and always willing to help. • Northern Trust's service level was almost non-existent for the last year. Inquiries were not responded to timely or accurately. Within the last two months, NT has made noticeable improvements in responding to inquiries. Staff is courteous and professional. • SSB's service level has decreased dramatically within the last year. Inquiries were not responded to and were sometimes not accurate. Outstanding issues updating current face on securities for paydowns and incorrect security identifiers on some transactions. The staff is courteous and professional.

FOREIGN CURRENCY EXECUTION

FX execution falls under the investment discretion or discretionary authority of an Investment Manager. Consistent with normal trading, the investment manager is entrusted to seek best price for buying or selling securities (and the corresponding FX) for the sole benefit and best interest of the plan and its beneficiaries. Investment managers ultimately determine "bad or good" execution because of the impact to performance over time. Nothing has changed with this investment manager fiduciary responsibility.

The FX market is a principal (or conducted by market makers) and not done through an agency basis. There is no open exchange (i.e., NYSE, Chicago Merc, etc.) to "see through" the transactions. Thus, one cannot say outright that an FX transaction is good or not. Given that it is a principal market, there is really no acceptable transparent way to evaluate "best execution" for any one transaction. However, Callan believes that it would be difficult for an investment manager to have good relative returns with consistent poor execution.

Given that FX falls under the investment discretion of the investment manager, an investment manager may want to execute with a custodian by choice either for convenience or expediency.

For example, certain countries such as Taiwan, India, Brazil, etc., require by law or regulation that FX be executed by the sub-custodian bank of the global custodian. Therefore, it may be impossible to seek best price when the market dynamics are restricted. This is the case for numerous developing and emerging markets classified as restricted currencies.

If a trade fails to go through because of a late or missing FX, there are far bigger costs other than FX execution. The manager may be unwilling to shoulder the opportunity cost which is calculated by tracking error/$\sqrt{250}$ trading days. In addition overdraft charges may be imposed. Current overdraft fees are around Fed Funds Rate + 250 bps. The combined impact of both opportunity costs and overdraft charges are far more expensive for the investment manager and for that matter the client.

Another important issue for plan sponsors revolves around contractual settlement. Custodian banks offer contractual settlement because it provides certainty in the books for Full Accrual Trade Basis Accounting. Technically, this means that the bank is using its balance sheet to validate that the transaction of the investment manager is money good – even though funds have not cleared to settle the transaction. In short, a client and its investment manager receive a temporary line of credit without penalties or the cost of capital is at the expense of the custodian bank. Ultimately, this money good guarantee is factored into the underlying FX transaction. The bank will not offer contractual settlement for free unless it can recoup the cost of extending its balance sheet for the convenience of a client and their investment managers.

However, Callan believes that FX because of the inherent lack of disclosure and transparency could lead to abuse. The custody industry has to be more transparent and provide better disclosure reporting. Investment managers have to ascertain that best execution includes both security and foreign currency trades.

For concerned clients, Callan suggests that they take the following steps.

- Reach out to Investment Managers (especially international managers) and ask how they are able to ascertain that competitive rates are achieved regarding FX transactions. What is the frequency of analysis and the key metrics? When and in what instances does the investment manager default to the FX desk of the custodian bank to carry out currency trades in the portfolio? Is a competitive bidding process or active solicitation of rates conducted to ensure the best possible rate?

- Reach out to the custodian bank and inquire as to their FX Execution Disclosure and Transparency Reporting. What are their policies and guidelines to ensure that competitive price is achieved for standing instructions (i.e., capital calls, drawdowns, benefit payments, etc.), income repatriation, actual purchases and sales of FX made directly by the plan sponsor? What reports are available in order to monitor FX execution? What options are available to a client specific to standing FX instructions (i.e. direct FX, pre-negotiated rates, netting, and competitive bidding)?

Callan believes that FX execution is under the investment discretion of investment managers and they have every right to trade away or execute with the custodian or any other provider of their own choice. Thus, the decision to unbundle or bundle FX execution falls under the fiduciary responsibility of the investment manager because they alone can ascertain “best price” within the context of their portfolio and the resulting impact to performance.

SECURITIES LENDING – CUSTODY AND THIRD PARY AGENT PROGRAMS

Securities Lending is a mechanism that provides liquidity, settlement efficiency, synchronizes derivatives with the cash markets, and helps central banks to effectuate monetary policy. Securities lending is a critical component to a well-functioning capital markets.

Firms borrow securities to complete securities transactions and to cover fails (securities sold but not available for settlement), short sales, arbitrage opportunities and other financing needs. Firms may need to temporarily borrow securities when they: (1) sell securities they have purchased but have not been delivered; (2) open a "short" position (i.e., sell securities they do not own), either voluntarily to establish a specific position or involuntarily as a result of an obligation as a market-maker to fill a customer buy order; (3) need to deliver securities they have not yet purchased against an exercise of a derivatives contract (e.g., the exercise of a call option); (4) want to raise specific collateral, perhaps for another securities lending transaction, or (5) need to cover a failed transaction in a securities settlement system.

Callan has been a firm believer that risk management takes precedence over revenue generation. A lending agent can have huge blocks of securities out-on-loan and is charged to reinvest large amounts of cash collateral on any given day. The lending agent can be the single largest investment manager of a client. Fund sponsors have not really factored securities lending into their risk budgeting exercise. As a result of the credit and liquidity crisis, fund sponsors' comfort levels are changing and some are indeed questioning the ongoing risk/reward trade-off of their securities lending programs. Securities Lending has Asymmetric Risk wherein cash collateral losses are skewed to the disadvantage of a client and not the provider. There is no free lunch with securities lending. We do believe that a program focused on risk management is far superior to a revenue-driven program.

The question whether to implement a securities lending program through the custody bank and/or a 3rd party lending agent is dependent on asset size and portfolio structures (lendable base), intrinsic value component, operational considerations, risk management and oversight, and aversion to risk.

The advantages and disadvantages of 3rd party or multiple agent lenders vs. reliance on a the master custodian are –

Advantages

Diversification of Risk: For mega-institutional investors, multiple securities lending providers should mitigate business and concentration risk. By virtue of the fact that a securities lending agent can lend all of the securities within an asset class or at the total fund level, the lending agent can be the single largest investment manager of the plan due to the reinvestment of cash collateral. To alleviate this risk, it would be prudent to hire multiple securities lending agents.

Diversification of Borrower Pool: Multiple lending agents lessen the exposure to a single borrower or counterparty risk. Borrowers have concentration limits and credit limits with lending agents. A large institutional investor would be able to push increase utilization and achieve a higher probability of borrowing by well qualified institutions. In short, multiple lending agents enhance the number of distribution channels for plan sponsors.

Nimble: The relatively small size of third party specialists, or boutiques, allows them to concentrate more on the few portfolios they lend. In addition, they often have some of the best lending personnel in the industry. They may be more willing to offer a client a better revenue split, because they do not necessarily have the overhead of a larger agent. This can mean a big difference in a client's earnings from lending.

Customization: Specialty firms may also be more willing to customize their service to meet a client's special needs. Large banks often have large clients that account for most of their lending revenue and, thus, see no need for customized service.

Specialization: Certain third party lenders concentrate on the most lendable portion of client portfolios—U.S. government bonds, small caps, convertibles, high-yield, and international equities. They offer asset class specialization. Certain providers also provide disciplines such as fully matched overnight programs to prevent mismatching of loans and investment maturities.

No Long Queues: Custodial banks typically have long lending queues. A long queue can impact the frequency of participation of any given lending client and, consequently, their revenue. Third party specialists have smaller programs with shorter allocation queues.

Proactive Trading: Due to the smaller (limited size) lendable base of third party lenders relative to custody banks, they have to be more proactive in calling on borrowers.

Truncate Functions: Third party specialists often employ actual fixed income (cash) managers to manage the cash collateral. This supports the notion that securities lending involves two separate functions—lending and investing. However, the critical issue with this approach is the coordination of efforts to manage the gap or the duration of the loan and investment.

Independence: Third party lending forces the issue that custody and securities lending are two distinct disciplines. Securities lending is often bundled with custody to cover custodial costs. This combination can compromise the notion that securities lending must be considered an investment management function as opposed to a subset of custody, an administrative function.

Disaster Recovery: As stated earlier, **t**he inclusion of an additional securities lender can provide a safety net if the custodian decides to exit the business.

Cross Check: Certain plan sponsors utilize their multiple securities lending agents to benchmark or cross check one another, including master custody lending. Due to the inherent benchmarking limitation within securities lending, plan sponsors can cross compare demand spreads in an intrinsic value driven program.

Disadvantages

Capital Base: Third party specialists often do not have the capital base to offer indemnification. Guarantees and indemnities are useless without the money to back them up. In addition, third party agents can be susceptible to losing a very large client. As a result, a smaller client's business may not be sufficient to keep the specialist in business. The smaller client may find itself suddenly looking for a new agent.

Tight Internal Controls: Aside from the issue of indemnification discussed above, third party specialists require a higher level of oversight and meticulous internal controls. History tells us that third party specialists do not necessarily have the internal checks and balances to help prevent inappropriate acts that may be detrimental to plan sponsors. Securities lending involves leverage, the indirect use and support of derivatives and related transactions, and the existence of "gaps" between the duration of the asset (collateral management) and the duration of the liability (loan). As a result, third party agents should be subjected to the same, and some would argue a higher, level of scrutiny and fiduciary responsibility as their larger custodial counterparts.

Operational and Administrative Burden: Credit analysis, asset servicing (e.g., collection of income), corporate actions, and other custodial duties, have to be performed to achieve full transparency with the investment management process. This added layer of coordination can be burdensome and impact the length of time needed to recall lent securities when an investment manager needs to dispose of those securities.

Increased Costs: Typically, large custodial banks will charge penalty (transaction) fees for third party lending. In addition, the failure to return securities on time to meet a sale delivery can lead to the occurrence of a failed trade, which in turn leads to opportunity costs in a moving market. Invariably, the client has to use a separate custodian for third party lending, and thus is unable to negotiate any special deals on clearing and settlement costs as it might if the custodian were also the lending agent.

Lendable Base: Borrowers often structure loans in large size lots. Custodial banks have the lendable base to meet such lots, whereas third party specialists may not.

Substitution Problems: Custodial banks have a large lendable base; in contrast, if securities on loan have to be recalled, third party specialists often do not have the lendable base or pool of assets to substitute the same securities in order to prevent loan termination and disruption to the borrower.

Team Stability: Historical performance records and team stability within third party specialist organizations are often an issue due to the high level of personnel turnover.

Chinese Wall Issues: Broker-dealer agents have to prove they are not fronting or doing some insider trading with their prime brokerage operations. Broker-dealers face multiple conflicts of interest. They are, by definition, borrowers of securities (as counterparties), lenders of securities (as agents) and deal makers (as principals). With these multiple hats, they are under pressure to define confidentiality, fiduciary duties and clients' equal access to lending income opportunities before their own book of securities.

The decision to unbundle or bundle securities lending with custody is driven by two factors: alpha generation (maximize revenue), or operational and cost considerations. If the objective is to maximize revenue or alpha generation to enhance performance, unbundling securities lending from custody is a viable option. Certain funds believe that unbundling securities lending custody focuses on "best in class" providers – core competency. A common thread to those plans who unbundle is the need to seek a performance boost for internally managed portfolios where performance based compensation is tied to a benchmark. Typically, clients who pursue this type of approach have dedicated personnel handling securities lending and with functional risk management tools to monitor the program. For funds that are risk averse or where risk management is paramount, the approach has been to de-risk the program through a single provider or a select few depending on core competency and as a safety net to each other. The sole securities lending agent is either through custody or a 3rd party provider depending on who can effectively de-risk the program regardless of revenue stream. The overarching criteria for selecting either a custody or 3rd party, is risk management. The entity who can provide the highest level of indemnification in the areas of borrower default, operational negligence, and collateral reinvestment risks is the preferred provider. For a majority of funds, securities lending is an "ancillary" function and an important source of funds to offset operations and administrative costs. The decision to unbundle hinges on this statement – "If a 3rd party securities lending agent cannot generate greater or equal revenue stream (within clearly defined risk parameters) than the custodian, and the 3rd party introduces undue operational/administrative oversight burden on staff, then unbundling becomes an unwarranted and expensive endeavor."

GLOSSARY OF TERMS – SECURITIES LENDING

- **ASYMETRIC RISK** – Within the context of securities lending, asymmetric risk is a significant mismatch between revenue gains and losses between client (lender) and the lending agent. Securities lending gains are shared based on the revenue sharing arrangement or split, while securities lending losses are often one sided and significantly borne by the client (lender). For example, a 60/40 split means the client (lender) receives 60% of gains and the lending agent collects the remaining 40% of gains. When losses materialize, the 60/40 split is often not applicable, wherein all losses (or 100%) are the responsibility of the client (lender).
- **BORROWER/COUNTERPARTY DEFAULT RISK** – The failure by a borrower to return securities on demand or upon recall. The default can arise from financial difficulty or bankruptcy.
- **COLLATERAL** – Security for a loan in the form of assets with monetary value. The creditor holds either the asset itself or title to it until the loan is repaid.
- **COLLATERAL REINVESTMENT RISK** – The risk associated with the reinvestment loss in the cash securities in which the lending agent and/or beneficial owner choose to reinvest the cash collateral. The real risk is that the investment of the cash collateral will not earn a sufficient return to cover the agreed upon rebate rate because of interest rate, liquidity and/or credit risks.
- **DEMAND SPREAD (or INTRINSIC VALUE)** – Intrinsic value means the scarcity value of a security that a borrower is willing to pay to secure almost exclusive access to the security. Thus, the demand spread is the actual value of a security that is out on loan less reinvestment spread.
- **DURATION MISMATCH RISK (GAP RISK)** – Risk known to occur when the interest rate sensitivity of the asset (cash collateral reinvestment) is longer or shorter than the interest rate sensitivity of the liabilities (loan).
- **FED FUNDS RATE** – The rate of interest charged for an overnight loan from one bank to another of excess reserves, that is, cash and deposits in excess of the reserves it is required to have on hand. Because the interest rate for such loans depends largely on supply and demand, it is regarded as a very important barometer of monetary conditions at any given time.
- **GAP RISK** – Risk known to occur due to duration mismatch.
- **GROSS SPREAD** – The difference between the yield or return generated by the cash collateral and the negotiated rebate (intrinsic value) paid on a securities loan (or, in the case of loans vs. non-cash collateral, the premium). The gross spread is the sum of the demand spread and the collateral reinvestment spread.
- **INDEMNIFICATION** – An agreement to compensate for damage or loss.
- **INTRINSIC VALUE** – See Demand Spread.
- **LENDABLE ASSET BASE** – Market value of securities available for lending.
- **LENDING AGENT** – An entity that undertakes a securities loan and negotiates the terms with borrowers on behalf of the owner of the securities that are out-on-loan.
- **MARGIN** – The amount or percentage by which the collateral value exceeds the value of the securities that are on loan.
- **MARKING TO MARKET** – The daily process of adjusting the value of a portfolio to reflect daily changes in the market prices of the assets held in the portfolio.

- **MATCHED BOOK** – Within the context of a securities lending transaction, the duration of the liability of the loan is synchronized and matched to the duration of the cash collateral reinvestment.
- **OPEN LOAN** – A securities loan with no fixed maturity date.
- **OPERATIONAL RISKS** — The risk that the lending agent did not administer the program as agreed. This includes the failure of the agent to mark to market collateralization levels, and to post corporate actions and income including all economic benefits of ownership except for proxy voting.
- **OUT ON LOAN** – Actual securities from the lendable asset base that is out on loan or currently borrowed by a counterparty or borrower.
- **PROXY** – A written form that is given by shareholders to record their vote or to authorize someone else to vote in their place at a shareholder's meeting. Shareholders or investment managers typically receive proxy notification specific to a pending vote.
- **REBATE RATE** – The negotiated interest rate that a securities lender pays the borrower on cash collateral. The negotiated interest rate or rebate rate is determined by the scarcity value of a security or demand for a specific security in the marketplace.
- **RECALL** – The ability to receive a security without fail that is out-on-loan to complete a sale transaction or to exercise a proxy vote.
- **REINVESTMENT SPREAD** – The spread generated by the lending agent from reinvesting the cash collateral posted by the borrower. The reinvest spread is generated from investing in short term securities for additional yield which is a typical strategy deployed by money market funds.
- **REPURCHASE AGREEMENT (REPO)** – A contract whereby an investment is sold with the stipulation that the seller will buy it back (repurchase it) at a specified price and, normally, on a specified date. It is in effect a loan in which the investment serves as collateral and the difference between selling price and repurchase price represents interest. The investment may consist of bonds, notes, certificates of deposits, or other securities, but most often is US Government securities.
- **REVENUE SPLIT (REVENUE SHARING ARRANGEMENT)** – The practice within securities lending specific to the sharing of revenue spreads between the client (lender) and the lending agent generated from the demand spread of securities on loan and the reinvestment spread of the cash collateral. For example, a 60/40 split means the client (lender) receives 60% of revenues and the lending agent collects the remaining 40% of revenues.
- **TERM LOAN** – A security loan with a fixed maturity date.
- **TRADE SETTLEMENT RISK** – The risk that an investor sells a security that is out-on-loan and that the loaned security is not returned by the borrower, and that a trade fails or the seller is charged with an overdraft fee.

Table A-2
Pro-Forma Fee Calculations

Trust and Custody Fee Comparison

Asset Based Fees	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension Trust				
Domestic Asset Fee	$78,778	$131,296	($52,518)	-40.00%
Global Asset Fee	$176,619	$398,863	($222,244)	-55.72%
Insurance Trust				
Domestic Asset Fee	$175,664	$292,774	($117,109)	-40.00%
Global Asset Fee	$52,766	$127,129	($74,363)	-58.49%
Total	**$483,826**	**$950,062**	**($466,236)**	**-49.07%**

Structural Fees	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension Trust				
Pension Account Fees	$116,300	$61,000	$55,300	91%
Insurance Trust				
Insurance Account Fees	$61,600	$38,000	$23,600	62%
Total	**$177,900**	**$99,000**	**$78,900**	**80%**

Transaction Fees	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension Trust				
Domestic Transaction Fees	$0	$0	$0	0%
Global Transaction Fees	$42,734	$167,205	($124,471)	-74%
Insurance Trust				
Domestic Transaction Fees	$0	$0	$0	0%
Global Transactions Fees	$65,939	$163,660	($97,721)	-60%
Total	**$108,673**	**$330,865**	**($222,192)**	**-67%**

Total Trust and Custody Fees	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension Trust				
Total Pension Fees	$414,430	$758,364	($343,934)	-45.35%
Insurance Trust				
Total Insurance Fees	$355,969	$621,563	($265,594)	-42.73%
Total	**$770,399**	**$1,379,927**	**($609,528)**	**-44.17%**

Compliance Monitoring Fee Comparison

Compliance Monitoring Fees	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension and Insurance Trusts	$20,000	$20,000	$0	0.00%
Total	**$20,000**	**$20,000**	**$0**	**0.00%**

Trust, Custody and Compliance Monitoring Total Fee Comparison

Grand Total	Northern Trust Fee Schedule as of 4/1/2014	Northern Trust Fee Structure Prior to 4/1/2014	Difference	% Change
Pension and Insurance Trusts	$790,399	$1,399,927	($609,528)	-43.54%
Aggregate Cost	**$790,399**	**$1,399,927**	**$609,528**	**-43.54%**

Agenda Item III.D

TO: State Investment Board

FROM: Dave Hunter

DATE: October 24, 2014

SUBJECT: Callan Securities Lending Review

Callan Associates Inc. ("Callan") recently completed a review of three securities lending proposals provided by the Northern Trust Company ("Northern Trust") to the staff of the North Dakota Retirement and Investment Office ("NDRIO") on behalf of the North Dakota State Investment Board ("NDSIB"). The results of this review are detailed in Callan's presentation.

A few summary excerpts are highlighted immediately below:

"If the NDSIB does decide to implement securities lending and is comfortable with the underlying risks inherent in securities lending, Callan recommends that Proposals #2 and #3 should not be pursued given the economics, potential risks, and operational burden would not be favorable to the NDSIB."

"Proposal # 1, the common industry approach, with an 80/20 split is reasonable as long as the program structure is an overnight intrinsic indemnified US Treasury Repo with the commensurate indemnity for operational and borrower default risk".

Source: Callan "NDSIB Trust/Custody Services Fee Benchmarking Review" dated October 8, 2014 (page 18)

Northern Trust has indicated its willingness to provide the indemnification for operational and borrower default risk referenced in the above statement (under "Proposal # 1").

After a Securities Lending presentation by Mr. Bo Abesamis III, Executive Vice President, Mr. Mark Kinoshita, Vice President, and Mr. Paul Erlendson, Senior Vice President, of Callan, the RIO staff intends to invite representatives from Northern Trust to formally present Proposal #1 to the NDSIB at the November 21, 2014 meeting.

Callan

October 24, 2014

North Dakota State Investment Board

Securities Lending

Bo Abesamis III
Executive Vice President

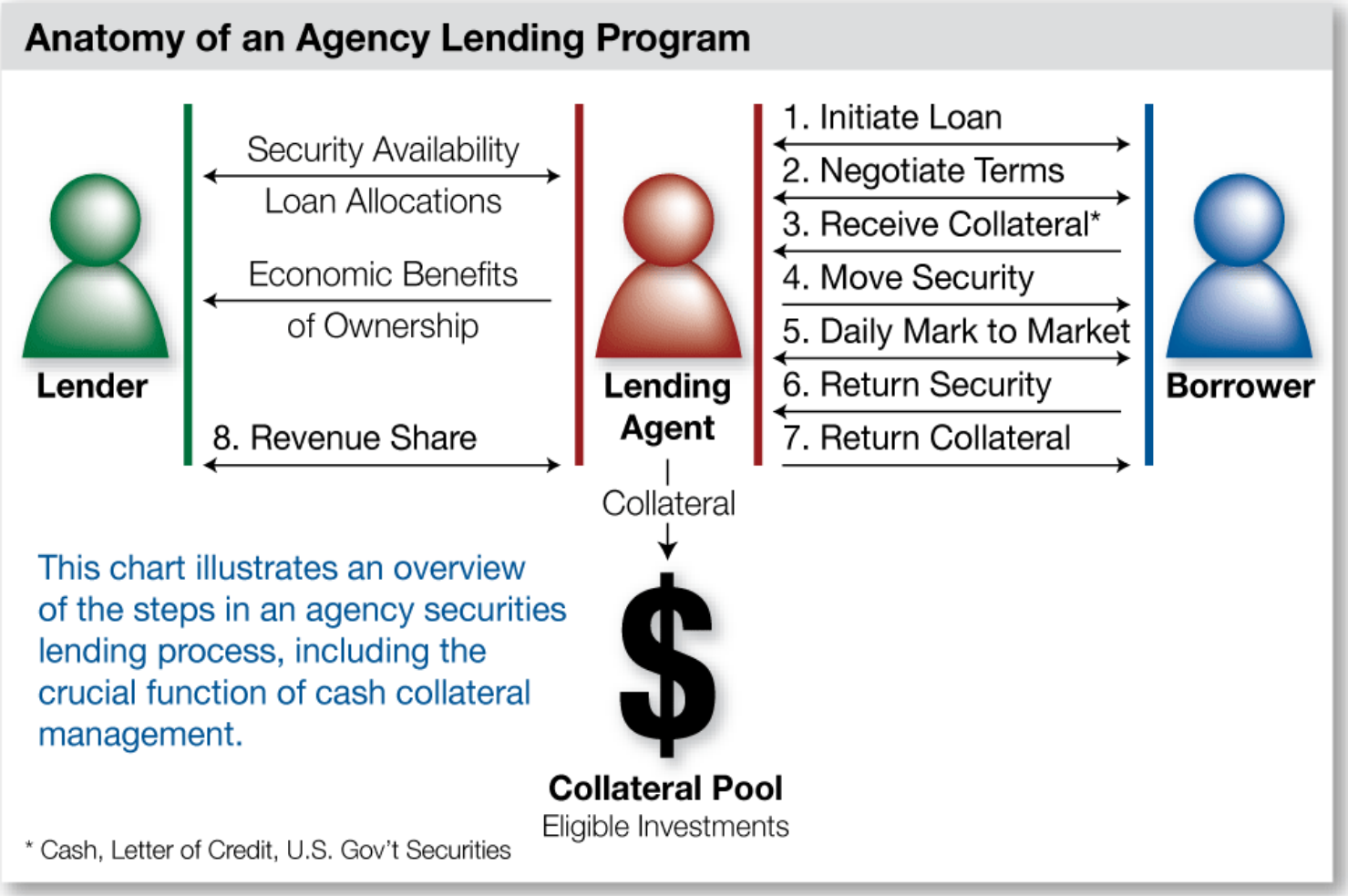
Mark Kinoshita
Vice President

Paul Erlendson
Senior Vice President and Consultant

Securities Lending

- Securities lending is the market practice where securities are temporarily borrowed by one party (the borrower) from another party (the lender).
- Borrowers tend to be hedge funds or other investors who need to cover a short position.
- Securities are borrowed for a certain period of time and the borrower gives collateral in exchange for the securities.
- Collateral generally consists of:
  - Cash
  - Government securities, or
  - Letters of credit
- Revenue sharing percentages range from 50/50 for smaller programs to 90/10 for larger programs.

Anatomy of a Loan



Who are the Lenders?

- Lenders
  - Public Pension Funds
  - ERISA Plans
  - Endowment/Foundations
  - Central Banks
  - Mutual Fund Companies
  - Investment Managers
  - Insurance Companies
  - Taxable Accounts

Motivations for Borrowing Securities

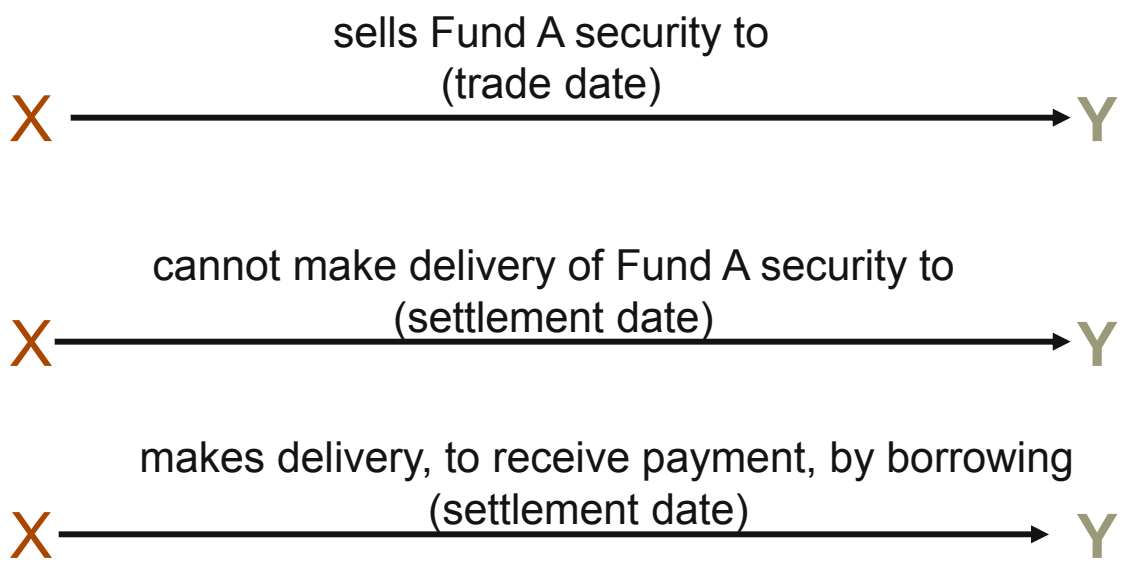
- Settlement Borrowing
- Strategy Borrowing
  - Hedging
  - Arbitrage
    - *Short Selling*
    - *Market-Neutral/Statistical Arbitrage*
    - *130/30 Strategies*
    - *Merger Arbitrage*
    - *Convertible Arbitrage*
    - *Event Driven Arbitrage*
    - *Macro Arbitrage/Global Asset Allocators*
    - *Dividend/Tax Arbitrage*
    - *Borrowing to Facilitate Structuring (Structured Products, etc.)*
- Prime Brokerage

Why Do They Borrow?

Borrowing to Cover a Settlement Failure

Example

If securities firm X sells a customer's stock to securities firm Y and on settlement date the customer has not delivered the stock, X cannot make delivery of the stock to Y. X will not receive payment. One way to solve this issue is to borrow securities in order to make delivery.

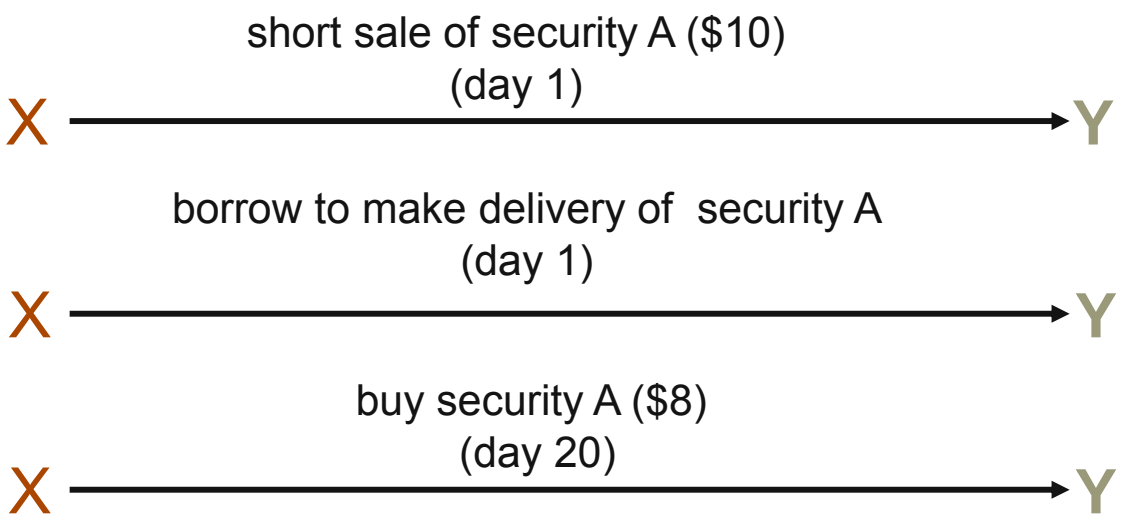


Why Do They Borrow?

Borrowing to Cover a Short Trading Position

Example

Naked (unhedged) Short: When a dealer believes a security is overpriced and wishes to profit from the anticipated price decline, he may sell the stock "short" (sell the stock that he does not own) and buy the securities in the market when the price has fallen. In a short sale, he has to borrow to make delivery to the counterparty in a short sale.



Why Do They Borrow?

Borrowing as part of an Arbitrage Transaction

Example

Arbitrage: To manage the risk involved in a naked position, a simultaneous buy or sell of a similar security or derivative may be employed. This strategy involves a dealer taking advantage of perceived price discrepancies.

a) Sell short (and borrow) 10-year U.S. Govt Bonds and simultaneously purchase five-year U.S. Govt Bonds.

b) Sell short (and borrow) IBM shares and buy IBM call options.

c) Sell short (and borrow) the 500 issues comprising the S&P 500 Index and buy the S&P 500 Futures.

d) Tax dividend arbitrage in foreign markets.

Securities Lending – What We Believe

- Securities lending is a critical component to a well functioning **Capital Markets** and an essential tool for liquidity, securitization, financing, risk management, and pricing efficiency.

- Callan has been a firm believer that risk management takes precedence over revenue generation. By virtue of the fact that a lending agent can have huge blocks of securities out-on-loan and is charged to reinvest large amounts of cash collateral on any given day, the lending agent can be the **Single Largest Investment Manager** of a client.

- Financial Crisis exposed that Securities Lending was not the issue but that of **Cash Collateral Management.** This was exacerbated by the fact that Securities Lending has **Asymmetric Risk** wherein cash collateral losses are skewed to the disadvantage of a client and not the provider.

- There is **No Free Lunch** with securities lending. We do believe that a program focused on risk management is far superior to a revenue-driven program.

Securities Lending Regulatory Oversight

- DoL PTE 81-6, PTE 82-63, Rule 15c3-3 and PTE 2006-16 (Party-in-Interest, Collateralization, etc.)
- FFIEC (Agent Type Program)
- SEC Limits and Borrower Behavior
- FASB (Reporting & Acctg. for Leverage)
- GASB (Reporting & Acctg. for Leverage)
- IRC Section 1058 vs. 74-27 (Tax Issues)

Note: DoL PTE = Department of Labor Prohibited Transaction Exemption; FFIEC = Federal Financial Institute Examination Council; SEC = Securities & Exchange Commission; FASB = Financial Accounting Standards Board; GASB = Government Accounting Standards Board; and, IRC = Internal Revenue Code

Securities Lending Risks

- Borrower Risk
  - The risk that the borrower will not return the securities due to insolvency.
    - *To mitigate this risk the lender requires that the borrower "over collateralize" the position.*
    - *Unless specifically indemnified by the lending agent, the borrower suffers from any losses due to default.*
- Collateral Reinvestment Risk
  - The risk that the investment of the cash collateral will not earn a sufficient return to cover the agreed upon rebate rate due to Interest Rate Risk, Liquidity Risk and Credit Risk.
    - *The investor can stipulate the types of acceptable collateral and the instruments in which the collateral can be invested.*
- Operational Negligence
  - The risk that an agent fails to mark to market collateralization levels, posting of corporate actions and income, including all economic benefits of ownership except for proxy voting.
- Trade Settlement Risk
  - The risk that an investor sells a security that is out on loan and that the loaned security is not returned by the borrower and that a trade fails or the seller is charged with an overdraft fee.
- Country and Currency Risks
  - Political, Exchange Rate, Economic, Sovereign and Transfer Risks
  - Vigilance is the only real solution.

Securities Lending Decision Variables for Plan Sponsors

- Tolerance for Risk
  - Risk Averse, Mitigate as Much of the Risk
- Is It Worth It?
  - As long as Risk/Reward is consistent with a Risk Averse Approach, and Revenue driven by Intrinsic Lending
  - Start a Program, Continue, Shut-Down or De-Risk
- Type of Agency Lending Program
  - Custody, 3rd Party Lending or Exclusives
- Pursue Further Tightening
  - Cash Collateral Reinvest via Indemnified Overnight REPO
  - Term Loans Limited to Short Duration
  - Open Loans – Fully Matched
  - Demand or Intrinsic Spread of 25 to 50 bps
  - Perfect the Collateral and Indemnification Covers SIPC Bankruptcy and Dodd Frank Issues
- Monitor and Evaluate
  - Achieve Transparency
  - Daily Monitoring

Disclaimer

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The statements made herein may include forward-looking statements regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties such that actual results may differ materially from these statements. There is no obligation to update or alter any forward-looking statement, whether as a result of new information, future events or otherwise. Undue reliance should not be placed on forward-looking statements.

- **BORROWER/COUNTERPARTY DEFAULT RISK** – The failure by a borrower to return securities on demand or upon recall. The default can arise from financial difficulty or bankruptcy.
- **COLLATERAL** – Security for a loan in the form of assets with monetary value. The creditor holds either the asset itself or title to it until the loan is repaid.
- **COLLATERAL REINVESTMENT RISK** – The risk associated with the reinvestment loss in the cash securities in which the lending agent and/or beneficial owner choose to reinvest the cash collateral. The real risk is that the investment of the cash collateral will not earn a sufficient return to cover the agreed upon rebate rate because of interest rate, liquidity and/or credit risks.
- **DEMAND SPREAD (or INTRINSIC VALUE)** – Intrinsic value means the scarcity value of a security that a borrower is willing to pay to secure almost exclusive access to the security. Thus, the demand spread is the actual value of a security that is out on loan less reinvestment spread.
- **DURATION MISMATCH RISK** – Risk known to occur when the interest rate sensitivity of the asset (cash collateral reinvestment) is longer or shorter than the interest rate sensitivity of the liabilities (loan).
- **FED FUNDS RATE** – The rate of interest charged for an overnight loan from one bank to another of excess reserves, that is, cash and deposits in excess of the reserves it is required to have on hand. Because the interest rate for such loans depends largely on supply and demand, it is regarded as a very important barometer of monetary conditions at any given time.
- **GROSS SPREAD** – The difference between the yield or return generated by the cash collateral and the negotiated rebate (intrinsic value) paid on a securities loan (or, in the case of loans vs. non-cash collateral, the premium). The gross spread is the sum of the demand spread and the collateral reinvestment spread.

- **INDEMNIFICATION** – An agreement to compensate for damage or loss.
- **INTRINSIC VALUE** – See Demand Spread.
- **LENDING AGENT** – An entity that undertakes a securities loan and negotiates the terms with borrowers on behalf of the owner of the securities that are out-on-loan.
- **MARGIN** – The amount or percentage by which the collateral value exceeds the value of the securities that are on loan.
- **MARKING TO MARKET** – The daily process of adjusting the value of a portfolio to reflect daily changes in the market prices of the assets held in the portfolio.
- **MATCHED BOOK** – Within the context of a securities lending transaction, the duration of the liability of the loan is synchronized and matched to the duration of the cash collateral reinvestment.
- **OPEN LOAN** – A securities loan with no fixed maturity date.
- **OPERATIONAL RISKS** — The risk that the lending agent did not administer the program as agreed. This includes the failure of the agent to mark to market collateralization levels, and to post corporate actions and income including all economic benefits of ownership except for proxy voting.
- **PROXY** – A written form that is given by shareholders to record their vote or to authorize someone else to vote in their place at a shareholder's meeting. Shareholders or investment managers typically receive proxy notification specific to a pending vote.

- **REBATE RATE** – The negotiated interest rate that a securities lender pays the borrower on cash collateral. The negotiated interest rate or rebate rate is determined by the scarcity value of a security or demand for a specific security in the marketplace.
- **RECALL** – The ability to receive a security without fail that is out-on-loan to complete a sale transaction or to exercise a proxy vote.
- **REINVESTMENT SPREAD** – The spread generated by the lending agent from reinvesting the cash collateral posted by the borrower. The reinvest spread is generated from investing in short term securities for additional yield which is a typical strategy deployed by money market funds.
- **REPURCHASE AGREEMENT (REPO)** – A contract whereby an investment is sold with the stipulation that the seller will buy it back (repurchase it) at a specified price and, normally, on a specified date. It is in effect a loan in which the investment serves as collateral and the difference between selling price and repurchase price represents interest. The investment may consist of bonds, notes, certificates of deposits, or other securities, but most often is US Government securities.
- **TERM LOAN** – A security loan with a fixed maturity date.
- **TRADE SETTLEMENT RISK** – The risk that an investor sells a security that is out-on-loan and that the loaned security is not returned by the borrower, and that a trade fails or the seller is charged with an overdraft fee.

Agenda Item IV. A.

TO: State Investment Board

FROM: Dave Hunter, Executive Director/CIO

DATE: October 24, 2014

SUBJECT: Governance Policy Amendments

As directed by SIB Policy B-10, Policy Introduction/Amendment/Passage, "policy amendments may be proposed by the Executive Director or a Board member". During our last SIB meeting, a series of policy amendments were reviewed with the Board in order to meet the "**Introduction and first reading**" requirements of Policy B-10. We now seek to conduct a "**Second reading and adoption**" of the previously proposed policy amendments.

Based on Board member discussion during the annual review of the SIB governance manual, the Executive Director will incorporate additional governance manual review sessions over the course of the next six to eight months in advance of a "Governance Day Offsite" to be scheduled in July or August of 2015. The Governance Day Offsite is intended to take the place of a regularly scheduled SIB meeting, but is expected to be expanded in length to allow for a deeper discussion of Board governance policies.

January 2015	Governance Process
February	Board Staff Relationship
March	Executive Limitations
April	Ends
May	Investments and Guidelines
June	By-Laws and Century Code
July or August	Governance Day Offsite

The Executive Director and Supervisor of Audit Services will seek to coordinate the proposed governance policy review agenda over the next two months.

At the conclusion of the "Second Reading", the Executive Director will request the SIB to adopt the proposed policy amendments.

POLICY TYPE: GOVERNANCE PROCESS

POLICY TITLE: *POLICY INTRODUCTION/AMENDMENT/PASSAGE*

New policies or policy amendments may be proposed by the Executive Director or a Board member. All new policies or amendments may be submitted to the Board's Legal Counsel for drafting in the approved style.

Upon request of the Executive Director or a Board member a new policy or amendment shall be placed on the Board's agenda for action as follows:

1. Introduction and first reading. A brief explanation or summary of the new policy or amendment shall be presented to the Board. Upon approval of introduction and first reading, the measure shall be placed on the agenda of the next scheduled meeting of the Board for second reading and adoption. When appropriate, the measure shall be distributed to interested parties.

2. *Second reading and adoption. Interested parties and the public shall be allowed an opportunity to comment on the policy or amendment before final action by the Board. The measure shall take effect immediately following second reading and adoption by the Board, unless a different effective date is stated.*

3. Amendments. Amendments may be proposed at any time before final adoption of the measure. Upon determination by the Board that adoption of an amendment constitutes a substantive change that significantly changes the meaning or effect of the measure, the Board shall continue consideration of second reading and adoption to the next meeting to permit further review and comment.

Emergency measures. The Board may, upon determination that an emergency or other circumstances calling for expeditious action exists, waive the requirement of a second meeting and immediately approve second reading and adoption following introduction and first reading.

Policy Implemented: February 27, 2009

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POLICY TYPE: EXECUTIVE LIMITATIONS

POLICY TITLE: *GENERAL EXECUTIVE CONSTRAINT*

The executive director shall not knowingly cause or allow any practice, activity, decision, or organizational circumstance which is either imprudent or in violation of commonly accepted business and professional ethics, state law, rules, and policies.

1. With respect to treatment of staff, the executive director shall not knowingly cause or allow any condition or any communication which is unfair, undignified, or disrespectful.

2. In relating to the public and other governmental entities, the executive director may not knowingly cause or allow any action which is unfair, undignified, or disrespectful. In addition, the executive director may not allow any communications from the staff which are inaccurate or fail to distinguish between fact and personal opinion.

3. Budgeting for any fiscal year or the remaining part of any fiscal year shall not knowingly deviate materially from board *Ends* priorities, or create fiscal jeopardy, or fail to be derived from the biennial planning calendar.

4. With respect to the actual, ongoing condition of the organization's financial health, the executive director may not cause or allow the development of fiscal jeopardy or a material deviation of actual expenditures from board priorities established in *Ends* policies.

5. With respect to providing information and counsel to the board, the executive director may not permit the board to be uninformed.

6. The executive director may not allow assets to be unprotected, inadequately maintained, nor unnecessarily risked.

7. Compensation and benefits for staff shall not deviate from applicable state and federal law, including N.D. Administrative Code, Chapter 4-07-02.

8. In order to protect the board from sudden loss of executive services, the executive director may not have fewer than ~~two~~ three other executives familiar with board and chief executive issues and processes. The executive director shall not fail to inform the Deputy Executive Director, the Deputy Chief Investment Officer, and ~~Supervisor of Fiscal Management~~ the Fiscal and Investment Operations Manager of executive and board issues and processes.

9. The executive director will not allow a conflict of interest in the procurement of goods and services.

10. The executive director will not operate the office without a code of conduct for all RIO Employees. This code of conduct will be a part of the office Administrative Policy Manual.

Policy Implemented: July 23, 1995.
Amended: January 22, 1999; November 19, 1999.

With respect to treatment of staff, the executive director shall not cause or allow any condition or any communication which is unfair, undignified, or disrespectful.

Accordingly, the executive director may not:

1. Operate without personnel procedures which clarify personnel rules for staff, provide for effective handling of grievances, and protect against wrongful conditions or violate any state or federal law.

2. Fail to provide staff with the opportunity to complete an employment termination questionnaire and an exit interview with the Supervisor of ~~Internal~~ Audit Services.

Policy Implemented: June 23, 1995.
Amended: May 31, 1996.

With respect to the actual, ongoing condition of the organization's financial health, the executive director may not cause or allow the development of fiscal jeopardy or a material deviation of actual expenditures from board priorities established in *Ends* policies.

Accordingly, the executive director may not:

1. Make any expenditure that exceeds the appropriation authority authorized by the North Dakota legislature.

2. Create policies for payment of administrative obligations that are in conflict with the policies of the Office of Management and Budget.

3. Initiate a transfer of appropriation authority between budget line items without board and Emergency Commission approval.

4. Allow appropriation expenditures to be made unless reported on ~~SAMIS~~ PeopleSoft.

Policy Implemented: June 23, 1995.

POLICY TYPE: EXECUTIVE LIMITATIONS

POLICY TITLE: *COMMUNICATION AND COUNSEL TO THE BOARD*

With respect to providing information and counsel to the board, the executive director may not permit the board to be uninformed.

Accordingly, the executive director may not:

1. Neglect to submit monitoring data required by the board (see policy on Monitoring Executive Performance) in a timely, accurate, and understandable fashion, directly addressing provisions of the board policies being monitored.

2. Let the board be unaware of relevant trends, anticipated adverse media coverage, material external and internal changes, and particularly changes in the assumptions upon which any board policy has previously been established.

3. Fail to advise the board if, in the executive director's opinion, the board is not in compliance with its own policies on *Governance Process* and *Board-Staff Relationship*, particularly in the case of board behavior which is detrimental to the work relationship between the board and the executive director.

4. Fail to marshal for the board as many staff and external points of view, issues, and options as needed for fully informed board choices.

5. Present information in unnecessarily complex or lengthy form.

6. Fail to provide a mechanism for official board, officer, or committee communications.

7. Fail to deal with the board as a whole except when (a) fulfilling individual requests for information or (b) responding to officers or committees duly charged by the board.

8. Fail to report in a timely manner an actual or anticipated noncompliance with any policy of the board, particularly *Ends* and *Executive Limitations*.

9. Fail to inform the board in a timely manner of any intention to hire or dismiss the Deputy Executive Director, the Deputy Chief Investment Officer, or the Fiscal and Investment Operations Manager.

10. Fail to keep the board informed concerning the delegation of fiduciary authority to any staff member. Every person to whom such fiduciary responsibility is delegated is ultimately accountable to the board as to the exercise and execution of the delegated authority.

Policy Implemented: June 23, 1995; November 19, 1999.

POLICY TYPE: GOVERNANCE PROCESS

POLICY TITLE: *ANNUAL BOARD PLANNING CYCLE*

To accomplish its job outputs with a governance style consistent with board policies, the board will follow a biennial agenda which (a) completes a re-exploration of *Ends* policies annually and (b) continually improves its performance through attention to board education and to enriched input and deliberation.

1. A biennial calendar will be developed.

2. The cycle will conclude each year on the last day of June in order that administrative budgeting can be based on accomplishing a one-year segment of the most recent board long-range vision.

    A. In the first three months of the new cycle, the board will develop its agenda for the ensuing one-year period.

    B. Scheduled monitoring will be used to evaluate and adjust the annual agenda as needed.

3. Education, input, and deliberation will receive paramount attention in structuring the series of meetings and other board activities during the year.

    A. To the extent feasible, the board will identify those areas of education and input needed to increase the level of wisdom and forethought it can give to subsequent choices.

    B. A board education plan will be developed during July and August of each year.

4. The sequence derived from this process for the board planning year ending June 30 is as follows:

    A. July: Election of officers, appoints audit committee, plan annual agenda, begin to develop board education plan, and new board member orientation.

    B. August: Investment Director review of ~~investment policies and~~ investment results, establish investment work plan, add investment education to education plan, and continue new board member orientation.

    C. September: Annual Review of Governance Manual.

    ~~C.~~D. October: Annual meeting for evaluation of RIO vs. *Ends* policies and annual board evaluation.

    ~~D.~~E. November: Investment Director report on investment work plan.

    ~~E.~~F. January: During second year of the biennium, begin to develop *Ends* policies for the coming biennium for budget purposes.

    ~~F.~~G. February: Investment Director report on investment work plan.
    Evaluation of Executive Director.

    ~~G.~~H. March: During first year of biennium, set budget guidelines for budget development.

    ~~H.~~I. May: Investment Director report on investment work plan.

Policy Implemented: June 23, 1995; November 19, 1999.

Annual internal reports for policies:

A-1 General Executive Constraint
A-3 Relating to Public and Government
A-8 Compensation and Benefits
A-9 Conflict of Interest

4. The Executive Director will submit required monitoring reports at regular meetings of the board. The board will act on those reports by voting on one of the following motions:

   A. A motion to accept the report.

   B. A motion to conditionally accept the report, with a statement of the revisions or additional information that is necessary for the report to be accepted without condition.

   The internal audit staff will be responsible for preparing an annual summary of the board's action concerning required reports submitted by the Executive Director, and the summary will be made available as a part of the formal evaluation of the Executive Director.

5. Each March the board will conduct a formal evaluation of the executive director/investment officer. This evaluation will be based on accomplishments of *Ends* and *Compliance with Executive Limitations.*

6. At the February ~~March~~ board meeting, the chairperson will appoint a three-member committee to review the board's evaluation and make a recommendation to the full board concerning salary for the executive director/investment officer.

   In making its recommendation, the committee will consider job performance as evidenced by the annual summary of the periodic monitoring reports, the Retirement and Investment Office budget status, the annual Public Pension System's Compensation Survey, the annual National Association of State Investment Officer's survey, the legislature's approved salary increases for state employees, the North Dakota market compensation for comparable positions, and other data or information considered relevant by the committee.

   The committee's recommendation will be placed on the May board meeting agenda for possible action by the board. Final action by the board will be accomplished no later than the June board meeting.

Policy Implemented: June 23, 1995
Amended: November 21, 1997; June 25, 1999; November 19, 1999; January 28, 2000; February 25, 2000; February 23, 2001.

ORGANIZATIONAL BENEFICIARIES

INVESTMENT CLIENTS:

Statutory:

1. Budget Stabilization Fund
2. Cultural Endowment Fund
3. Insurance Regulatory Trust Fund
4. Petroleum Tank Release Compensation Fund
5. Public Employees Retirement System Fund
6. Risk Management Fund
7. State Bonding Fund
8. State Fire and Tornado Fund
9. Teachers' Fund for Retirement
10. The Legacy Fund
11. Workers Compensation Fund

Contractual:

1. City of Bismarck Deferred Sick Leave Fund
2. City of Bismarck Employees Retirement Fund
3. City of Bismarck Police Retirement Fund
4. City of Fargo Dome Permanent Fund
5. City of Grand Forks Park District Pension Fund
6. City of Grand Forks Pension Fund
7. ND Association of Counties Fund
8. ND Job Service Retirement Fund
9. Public Employees Retirement System Group Health Insurance Fund
10. Public Employees Retirement System Retiree Health Insurance Fund
11. State Board of Medical Examiners

ADMINISTRATIVE CLIENTS:

Statutory:

1. Teachers' Fund for Retirement Beneficiaries

Amended: April 30, 2014

GOVERNANCE POLICY MONITORING SUMMARY				
POLICY	METHOD	RESPONSIBILITY	FREQUENCY	BOARD ACTION
ENDS				
Investment Services	External	Investment Consultant	Annual - FYE	N/A
	Internal	Investment Officer	Quarterly	Accept or Follow-Up
Retirement Services	External	Actuary	Annual - FYE	N/A
	Internal	Retirement Officer	Quarterly	Accept or Follow-Up
EXECUTIVE DIRECTOR LIMITATIONS				
Executive Constraint	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Quarterly	Accept or Follow-Up
Staff Relations	Internal	Executive Director	Quarterly	Accept or Follow-Up
	Internal (External)	Audit Supervisor (SIB)	Annual - CYE	Accept or Follow-Up
Public Relations	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Annual - CYE	Accept or Follow-Up
Budgeting	Direct	Board Review	Biennial	Accept or Follow-Up
	External	Governor (State Auditor)	Annual - FYE	N/A
	Internal	Executive Director	Quarterly	Accept or Follow-Up
Financial Condition	External	External Auditor	Annual - FYE	Accept or Follow-Up
	Internal	Executive Director	Quarterly	Accept or Follow-Up
Board Communication	Direct Board Participation	State Investment Board	Annual - CYE	Accept or Follow-Up
Asset Protection	External	External Auditor	Annual - FYE	N/A
	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
Compensation and Benefits	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Annual - CYE	Accept or Follow-Up
Conflict of Interest	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Annual - CYE	Accept or Follow-Up
Code of Conduct	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Annual - CYE	Accept or Follow-Up
Unrelated Business Interests	Internal	Executive Director	Annual - CYE	Accept or Follow-Up
	Internal	Audit Supervisor	Annual - CYE	Accept or Follow-Up

Audit Supervisor = Report to State Investment Board Audit Committee with a Summary Report to the SIB

FYE = Fiscal Year End CYE = Calendar Year End N/A = Not Applicable *Amended September 26, 2014*

North Dakota Retirement and Investment Office
Goals for the Executive Director / Chief Investment Officer
September 26, 2014

Specific, Measureable, Assignable, Realistic and Time Based Goals ("SMART" Goals):

1. **Strategic Vision** – Confirm RIO's strategic vision with the SIB.
    a. Board-Staff Relationship – Annually review and confirm **Board-Staff Relationship** policies. *Due Date: February 28, 2015.*
    b. Professional Training and Development – Develop an annual plan for the professional training of RIO staff and SIB members including educational topics on investments, pension trends, litigation monitoring, ethics awareness, open records policies, conflicts of interest, fiduciary roles and retirement readiness. *Due Date: April 30, 2015.*
    c. RIO Staff Goal Alignment – Ensure RIO staff goals and performance measurement is aligned to increase awareness, effectiveness and efficiency levels with our overall strategic vision, **By-Laws** and **Century Code***. Due Date: May 31, 2015.*

2. **Governance** – Confirm SIB's desire to maintain the current governance model framework.
    a. **Executive Limitations** – The Executive Director will create a schedule for the continuous and ongoing reporting of Executive Limitations, as referenced in Section C-4 (3-4) of the North Dakota Retirement and Investment Office Governance Policy Manual for the SIB. *Due Date: September 26, 2014*
    b. Staff Relations – Upward manager evaluations should be performed annually to ensure staff is being treated in a professional, respectful and courteous manner. *Due Date: January 31, 2015*
    c. Audit Services – Develop an expanded audit program under the direction of the SIB Audit Committee to enhance understanding and transparency of the quarterly and annual internal audit processes. *Due Date: May 31, 2015*
    d. Governance Day – The July SIB meeting will be scheduled to be a ¾ day offsite at a local conference facility to confirm SIB's desire to maintain the current governance model framework. This may included the engagement of a governance model expert to present to the SIB and completing the annual governance manual review. *Due Date: July 31, 2015*

3. **Investment Management** - All major asset classes, investment management firms, and SIB clients should be reviewed annually to confirm alignment of overall portfolio risk, return and fee expectations.
    a. Annual Fee Review – Conduct annual reviews of overall fees paid based on average assets under management, sector allocations and risk/return expectations. *Measurement Date: November 30, 2014*
    b. Annual Investment Manager Reviews – Conduct annual reviews with each investment manager based on risk and return expectations. *Measurement Date: December 31, 2014*

c. Annual Asset Class Reviews - Conduct annual reviews of each major asset class from an overall portfolio perspective versus risk and return expectations. *Measurement Date: March 31, 2015*
d. Annual SIB Client Investment Performance Reviews – Conduct annual performance reviews upon SIB client request as consistent with stated "**Investment Guidelines"**. *Measurement Date: May 31, 2015*

4. **SIB Client Service** – SIB client satisfaction survey responses should be ranked as "above average" or "exceeds expectations", if not "excellent", as consistent with our "**Ends**" statement.
   a. Budget – Submit RIO's biennium budget, including any optional budgets for salaries or technology, should be shared with the SIB prior to approval by the Governor. *Due Date: September 30, 2014*
   b. RIO Staffing – Ensure the agency is adequately staffed including any newly appointed positions. *Due Date: November 30, 2014*
   c. RIO Technology – Align SIB's technology strategy with TFFR's recent technology initiatives so as to leverage the best practices being developed for implementation. *Due Date: April 30, 2015*
   d. Retirement Benefit Services – The audit supervisor should confirm that retirement benefit services are offered on a cost effective basis as consistent with our "**TFFR Ends**" statement (noting that TFFR board member rankings of TFFR client services have been "Excellent"). *Due Date: June 30, 2015*

NOTE: The SMART goals were developed by the ED / CIO after completing a strategic risk assessment of the Retirement and Investment Office and its established mission statement.

Mission: The North Dakota Retirement and Investment Office exists in order that:

- SIB clients receive investment returns, consistent with their written investment policies and market variables, in a cost-effective manner and under the Prudent Investor Rule.
- Potential SIB clients have access to information regarding the investment services provided by the SIB.
- TFFR benefit recipients receive their retirement benefits in a cost effective and timely manner.
- TFFR members have access to information which will allow them to become knowledgeable about the issues and process of retirement.
- SIB clients and TFFR benefit recipients receive satisfactory services from the boards and staff of the office.

CUSTOMER SATISFACTION SURVEY
NORTH DAKOTA STATE INVESTMENT BOARD
2014

Evaluation Forms Sent	13
Evaluation Forms Returned	12

1. Handling of telephone calls promptly and professionally.

Excellent	Above Average	Average	Poor	N/A
9	2			1

- In the instances that I have called and/or visited the NDRIO offices, I have immediately been properly referred, had questions answered appropriately. Additionally as a superintendent, I occasionally hear from teachers related to these services. They have consistently been positive in regards to the communication from NDRIO.

2. Clarity and effectiveness of letters, reports, and presentations.

Excellent	Above Average	Average	Poor	N/A
6	5			1

- Fay and the other TFFR staff has done an excellent job in reaching out to various stakeholders to inform on timely issues of value to TFFR and its members. Additionally, the GASB trainings led by NDRIO staff have been, and will continue to be, a crucial aspect of proper implementation. I feel that NDRIO is well prepared to provide this training and recognizes the value.

3. Detail provided on reports.

Excellent	Above Average	Average	Poor	N/A
6	5			1

- All of the NDRIO staff provides consistent and high-value reporting on each agenda item every month. I have not yet asked a question that I could not find the answer to in the materials provided to us each month.

4. Delivery of high-quality service.

Excellent	Above Average	Average	Poor	N/A
9	2			1

- My basis for this rating is the high quality of information sharing that goes into recommendations to the SIB/TFFR boards. In every instance, I have felt that I not only have the appropriate information necessary to make a decision, but a rationalized recommendation. The NDRIO staff recognizes that all decision are done in the interest of the fund and action is consistent that fiduciary responsibility.

5. **Accessibility.**

Excellent	Above Average	Average	Poor	N/A
9	2			1

- As stated in other factors, I feel that NDRIO has reached out to numerous groups on timely issues. In the past year, this has included the presentations to celebrate the TFFR anniversary and GASB Implementation. I appreciate that presentations are available online for access as well. I find the website to be a resource that provides a high level of accessibility and transparency.

6. **Responsiveness.**

Excellent	Above Average	Average	Poor	N/A
9	2			1

- I have only had a few instances in which this factor would apply, but in all of them the responses have been as quick as I could have expected. In organizing my new trustee training, Fay was very efficient in organizing those plans. Additionally, I have had a few requests to David related to investments and the evaluation procedure. In every instance, David responded immediately and completely to me on all questions and requests.

7. **Efficiency.**

Excellent	Above Average	Average	Poor	N/A
8	3			1

- I'm struggling with understanding how to rate this factor. I believe that NDRIO staff is efficient as they have been managing at a high-level without a full contingent of staff, but I'm choosing to provide an N/A as I don't believe I cannot accurately rate the factor.

  (Please note no N/A was attributed for this survey above, as board majority voted Excellent).

8. **Knowledge of investments.**

Excellent	Above Average	Average	Poor	N/A
7	4			1

- As stated in the factor for delivery of high-quality service, every recommendation provided by the NDRIO staff comes with all necessary background to make a sound board decision. The fund is producing at a high-level while maintaining risk aversion. I'm not sure what more we could ask of the NDRIO staff in this area.

SUMMARY of SIB Client Satisfaction Survey Ratings:

	Excellent	Above Average	Average	Poor	N/A
Totals	63	25	0	0	8
Grade	4	3	2	1	0
Percent	66%	26%	0%	0%	8%
Average	**3.7**				

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

QUARTERLY MONITORING REPORT

Quarter Ended September 30, 2014

STAFF RELATIONS

The Executive Limitation "Staff Relations" deals with the treatment of staff at RIO. The executive director "shall not cause or allow any condition or any communication which is unfair, undignified, or disrespectful." This Executive Limitation lists six specific limitations that range from personnel policies to exit interviews. All the limitations are intended to protect staff from unfair, undignified, or disrespectful treatment by management.

During the past quarter, there were no exceptions to this Executive Limitation.

Terra Miller-Bowley joined RIO as Supervisor of Audit Services on October 13, 2014.

Eric Chin has accepted an offer to join RIO as Investment Analyst on or before November 17, 2014.

RIO staff has been kept informed on the status of the positions.

BUDGETING / FINANCIAL CONDITION

AS OF SEPTEMBER 30, 2014

	2013-2015 BUDGET	ADJUSTED APPROPRIATION	EXPENDITURES BIENNIUM TO DATE ACTUAL	BUDGET AVAILABLE	% BUDGET AVAILABLE	% OF BIENNIUM REMAINING
SALARIES AND BENEFITS	$ 3,772,504.00	$ 3,772,504.00	$ 1,927,713.62	$ 1,844,790.38	48.90%	37.50%
ACCRUED LEAVE PAYMENTS	71,541.00	71,541.00	37,143.58	34,397.42	48.08%	37.50%
OPERATING EXPENDITURES	973,324.00	973,324.00	505,339.92	467,984.08	48.08%	37.50%
CONTINGENCY	82,000.00	82,000.00	61,987.33	20,012.67	24.41%	37.50%
TOTAL	$ 4,899,369.00	$ 4,899,369.00	$ 2,532,184.45	2,367,184.55	48.32%	37.50%

EXPENDITURE REPORT

QUARTER ENDED SEPTEMBER 30, 2014

	INVESTMENT	RETIREMENT	QUARTERLY TOTALS	FISCAL YEAR TO - DATE	BIENNIUM TO - DATE
CONTINUING APPROPRIATIONS					
INVESTMENT EXPENDITURES (SEE ATTACHED DETAIL)	$ 9,630,304.65	$ 0.00	$ 9,630,304.65	$ 9,630,304.65	$ 31,882,155.99
MEMBER CLAIMS					
1. ANNUITY PAYMENTS	0.00	41,926,991.00	41,926,991.00	41,926,991.00	199,522,954.53
2. REFUND PAYMENTS	0.00	577,308.43	577,308.43	577,308.43	5,306,692.72
TOTAL MEMBER CLAIMS	0.00	42,504,299.43	42,504,299.43	42,504,299.43	204,829,647.25
OTHER CONTINUING APPROPRIATIONS	24,585.91	22,005.53	46,591.44	46,591.44	340,045.54
TOTAL CONTINUING APPROPRIATIONS	9,654,890.56	42,526,304.96	52,181,195.52	52,181,195.52	237,051,848.78
BUDGETED EXPENDITURES					
1. SALARIES & BENEFITS					
SALARIES	147,477.60	171,361.40	318,839.00	318,839.00	1,423,858.40
OVERTIME/TEMPORARY	0.00	0.00	0.00	0.00	2,950.00
TERMINATION SALARY & BENEFITS	0.00	0.00	0.00	0.00	0.00
FRINGE BENEFITS	42,008.41	64,872.07	106,880.48	106,880.48	500,905.22
TOTAL SALARY & BENEFITS	189,486.01	236,233.47	425,719.48	425,719.48	1,927,713.62
2. ACCRUED LEAVE PAYMENTS	0.00	0.00	0.00	0.00	37,143.58
3. OPERATING EXPENDITURES					
DATA PROCESSING	1,770.30	10,708.97	12,479.27	12,479.27	90,118.56
TELECOMMUNICATIONS - ISD	681.01	1,208.45	1,889.46	1,889.46	12,963.02
TRAVEL	12,618.87	4,001.13	16,620.00	16,620.00	42,530.64
IT - SOFTWARE/SUPPLIES	4.30	81.60	85.90	85.90	2,373.78
POSTAGE SERVICES	726.69	15,300.67	16,027.36	16,027.36	55,811.43
IT - CONTRACTUAL SERVICES	150.65	2,133.54	2,284.19	2,284.19	104,004.19
BUILDING/LAND RENT & LEASES	9,047.60	18,312.12	27,359.72	27,359.72	107,027.38
DUES & PROF. DEVELOPMENT	9,455.00	4,045.00	13,500.00	13,500.00	25,749.71
OPERATING FEES & SERVICES	2,158.84	2,461.56	4,620.40	4,620.40	22,577.07
REPAIR SERVICE	0.00	0.00	0.00	0.00	144.25
PROFESSIONAL SERVICES	675.33	2,139.67	2,815.00	2,815.00	16,077.00
INSURANCE	0.00	0.00	0.00	0.00	613.53
OFFICE SUPPLIES	80.72	73.91	154.63	154.63	1,716.81
PRINTING	211.16	3,997.34	4,208.50	4,208.50	17,352.96
PROFESSIONAL SUPPLIES & MATERIALS	0.00	0.00	0.00	0.00	943.60
MISCELLANEOUS SUPPLIES	48.43	60.41	108.84	108.84	808.18
IT EQUIPMENT UNDER $5000	1,844.14	2,123.52	3,967.66	3,967.66	4,527.81
OTHER EQUIPMENT UNDER $5000	0.00	0.00	0.00	0.00	0.00
TOTAL OPERATING EXPENDITURES	39,473.04	66,647.89	106,120.93	106,120.93	505,339.92
3. CONTINGENCY	0.00	0.00	0.00	0.00	61,987.33
TOTAL BUDGETED EXPENDITURES	228,959.05	302,881.36	531,840.41	531,840.41	2,532,184.45
TOTAL EXPENDITURES	$ 9,859,263.70	$ 42,807,180.79	$ 52,713,035.93	$ 52,713,035.93	$ 239,584,033.23

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED SEPTEMBER 30, 2014

FOR QUARTER ENDED 3/31/14		
INSURANCE SHORT TERM FIXED		
JP Morgan		49,436.52
LEGACY FUND SHORT TERM FIXED		
JP Morgan		89,925.04
TOTAL FOR QUARTER ENDED 3/31/14		**139,361.56**
FOR QUARTER ENDED 6/30/14		
PENSION DEVELOPED INTERNATIONAL EQUITY POOL		
Capital Guardian	121,348.18	
Northern Trust	21,103.81	
Wellington	184,205.02	
TOTAL PENSION INTERNATIONAL EQUITY		326,657.01
PENSION GLOBAL EQUITY POOL		
Epoch	540,644.13	
LSV	117,516.00	
LSV - Performance Fee	3,330,321.00	
TOTAL PENSION GLOBAL EQUITY		3,988,481.13
PENSION BELOW INVESTMENT GRADE FIXED		
Loomis Sayles		282,635.38
PENSION INVESTMENT GRADE FIXED INCOME POOL		
PIMCO	210,771.20	
State Street	7,442.80	
Western Asset	43,941.08	
TOTAL PENSION INVESTMENT GRADE FIXED INCOME		262,155.08
PENSION INFRASTRUCTURE POOL		
JP Morgan		292,151.97
PENSION LARGE CAP EQUITY POOL		
Clifton S&P 500 (Performance)	21,044.00	
Northern Trust	150,309.16	
LA Capital	222,605.80	
TOTAL PENSION LARGE CAP EQUITY		393,958.96
PENSION SMALL CAP EQUITY POOL		
Clifton (Performance Fee)		434,565.00
PENSION REAL ESTATE		
Invesco		159,643.52
PENSION INTERNATIONAL FIXED INCOME		
Brandywine		118,836.90
PENSION EMERGING MARKETS		
Northern Trust		32,533.96
PENSION PRIVATE EQUITY		
Adams Street Partners		11,341.00
PENSION CASH		
Northern Trust		15,412.76
INSURANCE FIXED INCOME POOL		
Prudential	83,199.33	

INVESTMENT EXPENDITURE DETAIL

FEES PAID DURING THE QUARTER ENDED SEPTEMBER 30, 2014

State Street	17,973.60	
Wells	237,556.46	
Western Asset	168,357.52	
TOTAL INSURANCE FIXED INCOME		507,086.91
INSURANCE LARGE CAP EQUITY POOL		
Clifton (Performance Fee)	91,661.00	
LA Capital	134,608.83	
LSV	119,677.00	
TOTAL INSURANCE LARGE CAP		345,946.83
INSURANCE SMALL CAP EQUITY POOL		
Clifton (Performance Fee)	307,733.00	
Research Affiliates	70,636.33	
TOTAL INSURANCE SMALL CAP		378,369.33
INSURANCE INT'L EQUITY		
Capital Guardian	184,512.12	
LSV	209,884.00	
TOTAL INSURANCE INT'L EQUITY		394,396.12
INSURANCE DIVERSIFIED REAL ASSETS		
JP Morgan	199,895.84	
Western Asset	90,949.04	
TOTAL INSURANCE DIVERSIFIED REAL ASSETS		290,844.88
INSURANCE REAL ESTATE		
Invesco	80,917.94	
JP Morgan	413,794.00	
TOTAL INSURANCE REAL ESTATE		494,711.94
INSURANCE SHORT TERM FIXED		
Babson	87,018.83	
JP Morgan	53,484.36	
TOTAL INSURANCE SHORT TERM FIXED		140,503.19
LEGACY FUND SHORT TERM FIXED		
Babson	105,276.79	
JP Morgan	71,636.05	
TOTAL LEGACY FUND SHORT TERM FIXED		176,912.84
PERS RETIREE HEALTH INSURANCE CREDIT FUND		
SEI		61,025.12
CUSTODIAN		
Northern Trust		216,551.26
CONSULTANT		
Adams Street	37,222.00	
Callan	129,000.00	
TOTAL CONSULTANT		166,222.00
TOTAL FOR QUARTER ENDED 6/30/14		**9,490,943.09**
TOTAL FEES PAID DURING QUARTER ENDED 9/30/2014		**9,630,304.65**

Quarterly Report on Ends
Q1:FY15

Investment Program

Continuing due diligence conducted on following:

PIMCO	Western Asset
Prudential	SEI
Babson `	Brandywine
Corsair	LA Capital
Northern Trust	UBS
LSV	JPMorgan
Goldman Sachs	DFA
Grosvenor	TIR

Initial due diligence conducted on the following:

BlackRock
IFM
Cogent Partners
Evercore
TimesSquare
Kildonan
Novarca
Public Pension Capital
TCW

Following the approval of a new strategic asset allocation for Workforce Safety & Insurance by the State Investment Board at the May meeting, the new policy allocation was implemented in the first fiscal quarter.

A legal contract review and transition to the active emerging markets equity mandate with Axiom International for the pension trust was completed in July.

With the assistance of Callan, Staff completed a search for finalist candidates for a Mortgage Backed Securities mandate for the pension trust investment grade fixed income sub-asset class. At the August meeting, the State Investment Board awarded the pension trust Mortgage Backed Securities mandate to JPMorgan (Columbus). A legal contract review was completed and the transition of assets from Western Asset to JPMorgan occurred at the end of September.

Callan’s custody review of Northern Trust was completed and a summary of their review will be presented at the October SIB meeting.

Staff continued to progress with the implementation of the new strategic asset allocation for the Legacy Fund, which is expected to be completed in January 2015.

Staff attended meetings with the following entities: TFFR Board, NDPERS Investment Subcommittee, and Government Finance Committee.

Staff continues to conduct preliminary due diligence on possible managers/products for future consideration.

Staff continues to monitor each client's asset allocation monthly and makes rebalancing decisions based on rebalancing policy and cash flow requirements.

Staff continues to review investment management fees and has obtained reductions with Prudential, Epoch and Wells.

Quarterly Monitoring Report on TFFR Ends Quarter Ended September 30, 2014

Retirement Program

This report highlights exceptions to normal operating conditions.

- TFFR, PERS, and the State Auditor's Office are continuing to develop a collaborative plan to implement the new GASB pension reporting standards with the assistance of plan actuaries, plan auditors, and trainer/consultant. GASB training for all TFFR and PERS employers and auditors is scheduled for December 11, 2014 in Bismarck. The training session will be recorded and available on the plan's website.

- TFFR staff is working with external auditor and State Auditor's Office to form a plan to conduct census data testing of TFFR employers as part of the GASB 68 implementation.

- TFFR and PERS jointly hired outside tax counsel to review the plan's statutes, operations, and forms to determine whether amendments are needed to comply with a recent U.S. Supreme Court ruling in *United States vs. Windsor* relating to same gender marriages. Based on this analysis, outside counsel recommended minor changes to remove the IRC date references from TFFR Bill No. 140, and other adjustments to operations and forms needed for TFFR to maintain qualified plan status with the Internal Revenue Code.

- In preparation for TFFR's actuarial experience study which will be conducted in 2014-15, the TFFR Board reviewed information from DPI and ESPB on projected teacher and student demographic changes as well as teacher shortage issues.

NDSIB Watch List

PIMCO return data as of 9/30/14

PIMCO Disco II (Ins.) ***$76,796,455***

	Returns	Index[1]	Excess
1 Year	12.02	4.37	7.64
2 Year	22.09	1.81	20.28
Inception*	20.20	2.43	17.77

*Funded 10/07/2011

PIMCO Disco II (Pen.) ***$85,423,973***

	Returns	Index[1]	Excess
1 Year	12.00	4.37	7.62
2 Year	22.08	1.81	20.27
Inception*	20.45	2.43	18.02

*Funded 10/07/2011

PIMCO Bravo II (Ins.) ***$17,720,786***

	Returns	Index[1]	Excess
Inception*	30.00	4.10	25.90

*Funded 10/01/2013 (6th Close)

PIMCO Bravo II (Pen.) ***$17,720,786***

	Returns	Index[2]	Excess
Inception	30.00	7.19	22.81

*Funded 10/01/2013 (6th Close)

PIMCO MBS (Pen.) ***$175,732,873***

	Returns	Index[4]	Excess
1 Year	3.88	4.66	(0.78)
2 Year	1.60	1.74	(0.13)
Inception*	1.72	1.90	(0.18)

*Funded 3/31/2012

PIMCO Unconstrained (Pen.) ***$93,810,011***

	Returns	Index[3]	Excess
1 Year	1.39	0.24	1.15
2 Year	1.79	0.29	1.50
Inception*	2.79	0.30	2.49

*Funded 3/12/2012

TIR return data as of 6/30/14

TIR Teredo ***$73,712,745***

	Returns	Index[5]	Excess
1 Year	6.64	9.92	(3.28)
3 Year	3.09	6.73	(3.64)
5 Year	5.33	3.33	2.00
Inception*	10.64	6.87	3.78

*Funded 06/12/2001

TIR Springbank ***$119,500,529***

	Returns	Index[5]	Excess
1 Year	0.22	9.92	(9.70)
3 Year	(2.60)	6.72	(9.32)
5 Year	(5.35)	3.33	(8.68)
Inception*	7.61	8.35	(0.74)

*Funded 09/20/2004

TIR Eastern Timber ***$62,217,469***

	Returns	Index[6]	Excess
1 Year	9.89	10.42	(0.54)
3 Year	5.69	4.44	1.25
5 Year	4.00	6.03	(2.03)
Inception*	4.15	5.31	(1.16)

*Funded 10/14/2008

[1] **Barclays Aggregate Index**
[2] **Barclays High Yield 2% Index**
[3] **Libor 3-Month**
[4] **Barclays Mortgage Index**
[5] **NCREIF Timberland Index**
[6] **Barclays Global Inflation Linked**

Note: All returns are net of fees.

Callan

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Memorandum

To: Dave Hunter, CIO; Darren Schulz, Deputy CIO, North Dakota Retirement and Investment Office
From: Callan Fixed Income Global Manager Research Team, Paul Erlendson
Date: October 1, 2014
Subject: Bill Gross, CIO and Co-Founder, Resigns From PIMCO

Last Friday September 26, 2014, Pacific Investment Management Company ("PIMCO") announced that **William "Bill" Gross**, Chief Investment Officer and Co-Founder of the firm, resigned from PIMCO effective ty. Gross joined a competitor, Janus Capital Group, to manage its Unconstrained Bond Fund. Additionally, Gross is charged with building out Janus's global macro fixed income capabilities. Gross will remain in Newport Beach, CA at a new office established by Janus. His efforts there will constitute a separate and distinct platform within Janus. Gross will report directly to Janus CEO, Dick Weil. We have been told that the addition of Gross will not impact the existing credit-oriented platform led by fixed income CIO, Gibson Smith.

Personnel and management adjustments

Gross's departure from the firm is significant and unexpected. The announcement created an environment of uncertainty for and about the firm. PIMCO has experienced a fairly substantial degree of high-level turnover since 2010. Most notably, **Mohamed El-Erian** announced his resignation as CEO and co-CIO in January 2014. El-Erian initially joined PIMCO in 1999 from Salomon Smith Barney/Citigroup, but took a two-year hiatus from 2005 - 2007 to run Harvard's Endowment. He returned to PIMCO as co-CEO and co-CIO in 2008, and assumed the CEO role later that year. Many believed at that time that El-Erian was the heir-apparent to Gross as CIO at PIMCO. Thus, the news of El-Erian's resignation was a major event that left many wondering who would take charge when Gross was no longer at the firm. Upon the announcement of El-Erian's departure, PIMCO veteran **Doug Hodge** was named CEO, and **Jay Jacobs** was appointed to the newly created role of President. Hodge handles external business management decisions while Jacobs is focused on internal business management.

It is important to highlight that with the election of Hodge as CEO, the firm returns to the structure PIMCO had used throughout its 43-year history prior to El-Erian's return at the start of 2008. That is, the current structure splits the CEO (business management) and CIO (investment management) responsibilities. Upon El-Erian's departure in early 2014, six employees were appointed to the newly created role of Deputy CIO: **Andrew Balls**, **Scott Mather**, **Dan Ivascyn**, **Mark Kiesel**, **Virginie Maisonneuve**, and **Mihir Worah**.

Other notable senior departures since 2010 include **Paul McCulley** who retired on December 31, 2010. McCulley, who joined the portfolio management group and Investment Committee in 1999, was well-respected, especially for his insights regarding the Federal Reserve. In May 2014, McCulley rejoined PIMCO in a new role as the firm's Chief Economist. McCulley will not be responsible for managing client assets. Although McCulley sits on PIMCO's Investment Committee and chairs some of the daily Investment Committee meetings, his position is designed to be part-time and he will continue to participate in philanthropic and academic activities outside of the firm.

In May 2013, **Scott Simon**, Managing Director and head of the firm's mortgage-backed operations, retired from the firm. Simon was a 13-year veteran of PIMCO and was internally acknowledged as the firm's agency-backed MBS expert. In December 2013, **Chris Dialynas**, a long-time PIMCO veteran and member of the Investment Committee, announced that he was taking an open-ended sabbatical. Dialynas was the lead manager on PIMCO's Unconstrained Bond Fund, as well as the portfolio manager for many institutional separate accounts. Dialynas has been with PIMCO since 1980. With the news of Gross's departure, it was also announced that Dialynas will return to PIMCO as a generalist portfolio manager. **Marc Seidner**, Generalist Portfolio Manager and contributor to the Total Return process, resigned in January 2014 shortly after the El-Erian announcement. The responsibilities held by McCulley, Simon, Dialynas, and Seidner were absorbed by existing team members, a testament to PIMCO's deep bench of investment professionals.

Upon Gross's resignation, Dan Ivascyn was elected as the Group CIO. Additionally, all of the deputy CIO's have been named CIO's of various divisions. Keisel is now the CIO of Global Credit; Mather is CIO of U.S. Core Strategies; Worah is CIO of Real Return and Asset Allocation; Balls is CIO of Global Fixed Income; and Maisonneuve is CIO of Equities. All of the CIOs are also Investment Committee members, and are joined on the Committee by Dialynas, **Christian Stracke**, **Saumil Parikh**, and **Tony Crescenzi**. PIMCO also has three rotating Investment Committee members, currently held by **Mohsen Fahmi**, **Sudi Mariappa**, and **Steve Rodosky**.

Total Return Fund

With regard to the leadership of PIMCO's flagship Total Return product which had previously been run by Gross, Messrs. Mather, Keisel, and Worah are now responsible for management of the portfolio. Each brings a particular expertise to the team. Mather has led the Global Fixed Income business at PIMCO for many years. Keisel has been an integral part of the Credit Team since he joined in 1996. Worah has been in charge of PIMCO's Real Return business for many years. All three are CIOs and have served on the Investment Committee for many years. It is also noteworthy that all three have been involved with the Total Return product for many years. While Gross was the leader, all have previously contributed to the decision-making process through their contributions on the Investment Committee.

Although there is now a new team structure in place, it is important to point out that all of the major portfolio decisions come out of the Investment Committee, not from individual portfolio managers. Thus, the Investment Committee will continue to make the major decisions, determine the major themes, and establish risk exposures. The portfolio management team will decide how to implement the Investment Committee's decisions. In that regard, nothing has changed other than the notable absence of Gross from Investment Committee deliberations. Mather will be the ultimate decision maker if there is not agreement among the three portfolio managers.

As relates to the Unconstrained Total Return strategy, the product was led by Dialynas until December 2013. At that time, PIMCO announced that Dialynas would be taking an open-ended sabbatical beginning in the second quarter of 2014 and Gross assumed the lead portfolio manager role for the strategy. Although Dialynas is returning to PIMCO, he will not be a portfolio manager on the Unconstrained strategy. With Gross's recent departure, the Unconstrained product is now managed by Parikh, Fahmi, and Ivascyn. Each brings a particular expertise to the team. Parikh had previously been a generalist portfolio manager, but also worked with Gross on this Fund. He has been with PIMCO since 2000 and is also a member of the Investment Committee. Ivascyn, now Group CIO, heads up the mortgage credit team and is also a lead portfolio manager for the credit hedge fund and the mortgage opportunistic strategies. He is also a member of the Investment Committee.

Fahmi is a recent hire, having joined PIMCO earlier this year from Moore Capital Management. He has 30 years of investment experience, including head of leveraged investments at Salomon Brothers and executive director of proprietary trading at Goldman Sachs. As is also the case with the Total Return strategy, it is important to remember that key themes come out of the Investment Committee, not from individual portfolio managers. Portfolio managers are responsible for implementing themes and portfolio construction. In that important respect, nothing has changed other than the notable absence of Gross from the Investment Committee. It is our firm belief that the team approach provides breadth to management of each investment strategy at PIMCO and that their investment processes do not change in the post-Gross era.

The retention / dismissal question

There are many considerations to weigh when making a determination as to whether to hold or to liquidate PIMCO holdings. The situation is fluid and an immediate reaction based upon speculation may not be the most prudent course of action for clients. We feel each client situation is unique and thus, that there is not one "right" answer that is appropriate for all clients and all situations. Product vehicle (mutual fund or separate account), past experience with PIMCO, product strategy, size of mandate, and potential replacements are all other factors that must be considered before making a decision.

Listed below is a set of factors that we believe should be *carefully* evaluated before making a decision about continuing or terminating a relationship with PIMCO.

- Callan continues to have confidence in PIMCO's investment capabilities without Gross. PIMCO has a very deep bench of talent and considerable resources devoted to its infrastructure. As such, the departure of Gross does not leave a vacuum in terms of investment capability. However, there are several effects that have arisen following Gross's departure, many of which are unquantifiable and/or will not be known over the near term:

  - **Media scrutiny** Continued press coverage is assured although the overall tone of same is unknown. Thus far, there has been a mix of reactions in the press. The distraction associated with media hype can be counterproductive for employees and detract from a focus on clients and performance.

  - **Leadership uncertainty** The future effectiveness of the new organizational structure and the leadership capabilities of the new CIOs is as yet unknown. While the new CIOs have proven to be strong investors, their new roles will require additional skills and potentially time away from portfolio management.

  - **Personnel departures**. While Gross is precluded from soliciting employees from PIMCO for one year per his shareholder agreement, the possibility exists that others will leave either to join him or to work elsewhere.

  - **Outflows** Expected fund flows are impossible to quantify at this time. While separate account terminations can be done with in-kind transfers so as not to disrupt markets, mutual fund flows of a large magnitude can potentially move markets. PIMCO has assured its investors that it stands ready to meet redemptions and that its portfolios and market conditions are sufficiently liquid to meet demands. Clearly, the level of liquidity depends on the product type. While we believe that the Total Return Fund is reasonably high quality and liquid, we expect that there may be attempts to front-run the trades and or anticipated flows from the Fund. PIMCO does have a process in place to manage liquidity but any attempt to predict outflows or the resultant impact on performance in any fund would be pure speculation in which we will not engage. Callan will be following flows actively and providing updates as appropriate.

- Callan urges prudence and patience. The amount of time that clients have already dedicated to PIMCO may weigh heavily in decisions. Close monitoring will be necessary over the short term. However, the time and costs associated with moving assets to another firm should also be considered in the evaluation of developments at PIMCO.

- Gross's departure removes a cloud of uncertainty that has hung over the firm and allows PIMCO to move forward and embrace more of a team-based approach. PIMCO has stated that while its process and philosophy will remain intact, it is evolving and moving into a "new chapter" whereby more of a team approach is embraced, employees are empowered to express divergent views, and the business model continues to be diversified.

- PIMCO has increased its investment in its people. As of 9/30/14, more than 20 senior vice presidents and executive vice presidents were hired across an array of products. New retention programs are currently being developed to retain talent. Callan will monitor this latter development closely.

- Finally, PIMCO's designated senior leadership team has been working together, in most cases, for more than a decade. The years in parentheses indicate the year each individual joined PIMCO.

    - Dan Ivascyn; Group CIO (1998)
    - Mark Kiesel; CIO Global Credit (1996)
    - Scott Mather; CIO U.S. Core Strategies (1998)
    - Mihir Worah; CIO Real Return and Asset Allocation (2001)
    - Andrew Balls; CIO Global Fixed Income (2006)
    - Virginie Maisonneuve; CIO Equities (2014).
    - Saumil Parikh; Investment Committee Member (2000)

Callan continues to closely monitor developments at PIMCO. In particular, we will be monitoring performance to evaluate how the new team-based portfolio management structure is impacting portfolios. We will monitor the firm for any additional departures. It is imperative to closely watch fund flows within the various strategies, particularly as relates to the Total Return Bond Fund.

For your reference, the following pages include exhibits received from PIMCO detailing the business and investment management organizational transitions along with the current CIO and investment committee structure. Please do not hesitate to contact me or anyone in Callan's Global Fixed Income Manager Research Group if you require any additional information.

# # #

Exhibit 1: Investment Management Leadership Transition

Exhibit 2: Current CIO and Investment Committee Structure

As of 26 September 2014
The Morningstar Fixed Income Fund Manager of the Year award (2012, 2013) is based on the strength of the manager, performance, strategy, and firm's stewardship.

INVESTMENT COMMITTEE[5]				
Dan Ivascyn[1]	Mohsen Fahmi[4]	Sudi Mariappa[4]	Steve Rodosky[4]	Virginie Maisonneuve[2]
Andrew Balls[2]	Saumil Parikh	Scott Mather[2]	Christian Stracke	
Tony Crescenzi	Mark Kiesel[2]	Paul McCulley	Mihir Worah[2]	

As of 26 September 2014

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BOARD LEADERSHIP
INNOVATIVE APPROACHES TO GOVERNANCE

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How Are You Doing? The Governance Question

By Michael Mann

Having managed governance projects on behalf of the World Bank, the European Commission, Asian Development Bank, and private clients in more than 30 countries, Michael Mann is in a good position to confirm the need for good governance and share some of the tools he has developed along the way.

IN 25 YEARS of international consultancy, I have witnessed the consequences of poor governance on a daily basis.

I wish I were allowed to name names, but I would like to talk about a national broadcasting corporation where cash was going through the floor at an alarming rate (a really alarming rate—we are talking about the organization's entire value in just over a year), and the board seemed to not even realize that this was a problem. The country's Code of Governance stated that "All boards should have at least two members who are financially literate." In spite of the fact that I am an accountant, I am not married to that idea. However, in this case, not one single member of the board had a finance qualification or any claim to be "financially literate." The annual report and discussions with board members demonstrated that they were concerned about broadcasting standards and ideals, political correctness, and extending the range of programs for minority and ethnic groups. Their attitude was "We are state funded and it is the role of the state to just give us the money." By the time we examined this organization, it had reached the point where there was no money left and suppliers were not being paid. The board was blaming the government, but they just didn't appreciate the scale of the money burn. I believe that a simple graph presented to them early on might have focused their minds. I mention this instance with this enterprise, but this particular situation is very common.

Since the European Union funds most of my projects, we are constantly told to highlight examples of cronyism in board appointments or to expose political appointees. In countries where there is a high level of state ownership, in particular, there is a temptation for the minister to bring in a few friends; paid appointments, which keep the friends happy and give the minister an ally on the board. As a result, board composition can suffer. Cronies may be selected for their good standing in the community or the fact that they are already on many boards and so seem

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EVENTS

BoardSource

Throughout the year, BoardSource organizes a range of webinars and training events for US nonprofit board leaders. For more information, see http://bit.ly/BdSourceEvents.

National Coalition for Dialogue & Deliberation (NCDD)

NCDD also regularly provides useful training events. For more information, see http://ncdd.org/events/ncdd2014.

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Aimed at those just exploring Policy Governance® and experienced practitioners, IPGA is offering a whole set of free and good value learning events over the coming months. You can see the full list so far and register at http://bit.ly/IPGAEventsReg

September 29–30, 2014

Board Chair Forum on Policy Governance®

— Calgary, Alberta, Canada

An opportunity for chief governance officers and those preparing for board leadership to learn from Jannice Moore, President, The Governance Coach™; and

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How Are You Doing?

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experienced. The fact is that there is a competency gap. This problem takes years to repair. It needs a change of attitude and a succession of gradual reshuffles, which take time. Probably, the change of attitude can't be achieved because of the arrogance of many politicians. Changes need to be slow because you can't lose continuity. We need a practical solution: I propose clear board reporting to such an extent that even the most disinterested and incompetent will recognize a crisis and demand corrective action.

The way to do this is through infographics. Clear and timely dashboards of key performance indicators are so simple that they don't have credibility as a sophisticated tool, but they are the most effective mechanism for achieving change. (See Figure 1.)

In my practice, I have carried out assignments to support state monitoring agencies for public-sector organizations. For one of these, we had to develop a governance system for 2,500 enterprises. Governance is, of course, the responsibility of the board, but our intervention proves that the boards are sometimes not very good. In fact, I guess we had 2,500 not very good boards. We developed a database and entered the accounts of all 2,500 enterprises for the past three years. Then we filtered out those that were deemed to be of strategic importance.

We then analyzed the liquidity and profitability trends. Some were insolvent and getting rapidly worse. These (basket cases) were recommended for closure unless there was a very, *very* good reason not to close them. Others were okay and getting better. Forget them also—they don't need help. We concentrated on the ones in the middle.

We developed a quick scan mechanism: a rapid appraisal to assess market viability, political will to save them, and management capacity to carry out restructuring. From this, we made a plan that targeted our resources at the right level and maximized our efficiency. With 2,500 enterprises, they had to be quick scans. No more than half a day per enterprise (after the initial filtering).

From our database, we were also able to assess the impact of closing groups of enterprises on jobs lost, redundancy, and the impact on the lending banks. The only way to handle a large quantity of data is to simplify it and to make it graphic. This goes for large groups of enterprises and for small nongovernmental organizations.

> It is the responsibility of anyone who is a director or a trustee of any entity—large or small, for-profit or nonprofit—to answer The Governance Question well.

In our appraisals (the quick scans), we used a technique referred to as "Thin Slicing." Many people realize that intensive analysis only confirms a first impression. In the same way that an art expert can instantly recognize a fake, we can form a conclusion on the quality of the management and the viability of the business within an hour of arriving; but it takes time and a lot of work to prove it. If we have to write a lengthy report to justify our opinion, then it will take days—or even weeks. And the quick scan proves as accurate, more or less, as the diligent examination.

Let's simplify everything. Simply ask, "How are you doing?" (the title of this article). This is what I call "The Governance Question," for it is far more than a friendly greeting when used in a governance setting. In a governance setting, a simple "Fine, thank you" answer will be insufficient because your stakeholders really do want to know how you are doing. More specifically, they want to know, "What is your *position* and what is the *trend*, with regard to your achievement of your goals."

- Is your position good—and maybe getting better?
- Is your position okay—and stable?
- Or is it bad—and getting worse? (See Figure 2.)

How you answer The Governance Question is very important. If you can give me a satisfactory answer, then you immediately signal that you know what you are doing and you gain my confidence, even if the position and trend

Figure 1: Dashboards Are the Main Aid to Governance

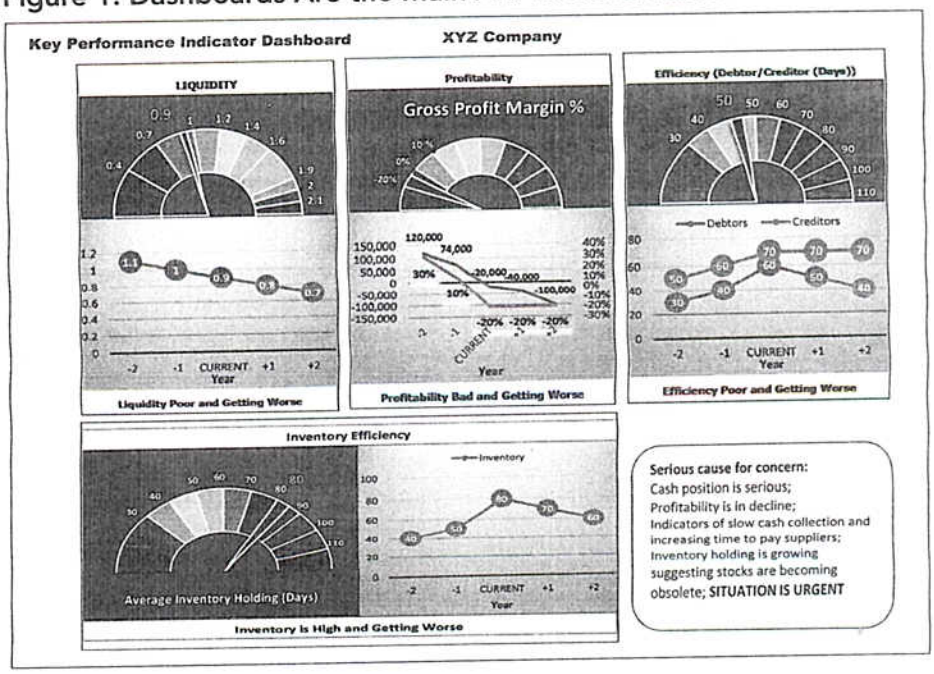
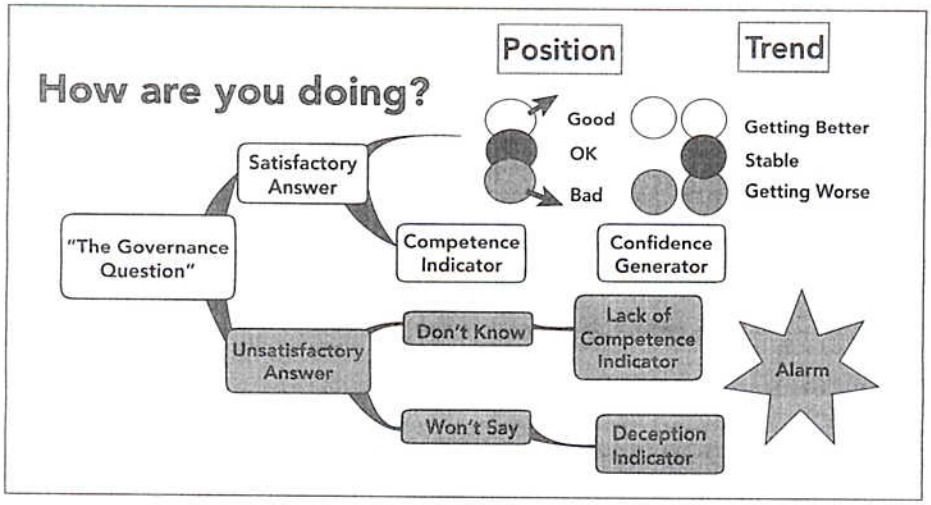


Figure 2: The Governance Question



is bad. If it is bad, at least you know, so you are probably taking corrective action or at least in a position to do so.

If you give me an unsatisfactory answer, you indicate that you either "*don't know*" (in which case, I am going to be concerned about your competence) or you "*won't say*" (in which case I'm going to be concerned about your integrity—"don't know" is a competence indicator; "won't say" is a deception indicator). In either case, an unsatisfactory answer gives me cause for concern.

How you answer The Governance Question will tell me:

- Should I trust you?
- Should I like you?
- Should I work with you?
- Should I lend you money?
- Should I vote for you?
- Should I invest in you?

Clearly, it is the responsibility of anyone who is a director or a trustee of any entity—large or small, for-profit or nonprofit—to answer The Governance Question well. I go as far as to suggest that this is the *main role of governance*: to answer this question to ourselves and to others, and to initiate corrective action when the answer stimulates it.

In recent times, people have shown that they are not impressed with the answers to The Governance Question from our politicians around the world. The political classes have universally demonstrated arrogance, in that they think they don't need to answer the question well. According to the UK magazine *The Economist*, it is mistrust of politicians that has triggered much of the unrest around the world. If the Reverend Flowers, chairman of the troubled UK Co-operative Bank, had been able to answer The Governance Question to the House of Commons Select Committee, he would not have been publicly ridiculed and the Co-op Bank would not have been accused of appalling governance.

It seems easy. Simply establish the key performance indicators, figure out the position and the trend and present them in a report, and we would all be able to be fit and proper board members.

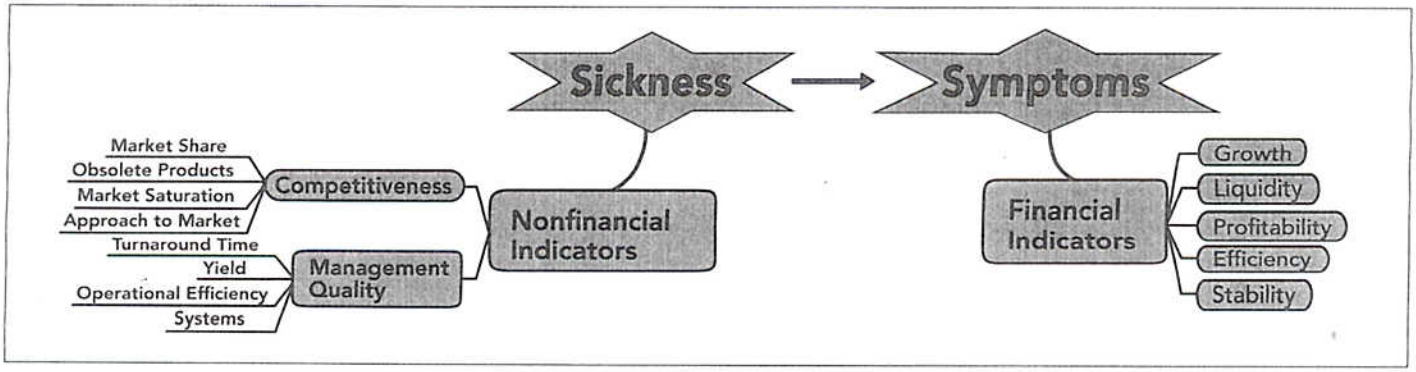
Let us step back a stage and put ourselves in the shoes of any organization's stakeholders and examine what these *key performance indicators* are and how we find out the position and trend. We usually start with the annual report, but it takes some work. First, we must gather together the last three annual reports and extract the income statement and balance sheet from them onto a spreadsheet. Then we need to calculate some performance ratios, and then we should forecast forward the results for five years. It would be ideal if we present this graphically on a dashboard with charts and traffic light indicators, but there are some problems with this:

- Some directors don't know how to do this or are too busy.
- The annual reports provide only financial indicators; they do not normally include nonfinancial indicators. (See Figure 3.)

The environment in which I operate has little governance as we know it. It certainly does not have the benefit of the Policy Governance® system, which involves the creation and monitoring of measurable interpretations of all comprehensively stated board expectations.

(continued on page 8)

Figure 3: Directors are General Practitioners—First They Look at the Symptoms



For Your Bookshelf ...

Reviewed by Richard M. Biery

Richard Biery, a US-based consultant in governance and issues related to the performance and monitoring of community and population-based health organizations, reviews a recent book that attempts to provide an overall review of nonprofit governance research.

Nonprofit Governance: Innovative Perspectives and Approaches
by Chris Cornforth and William A. Brown (eds.), Abingdon: Routledge Contemporary Corporate Governance Series, 2013.

REVIEWING *NONPROFIT GOVERNANCE* is a challenge in many ways. First, it is not a single-author book with a unifying idea or theme linearly running through it. It is a compilation of articles (chapters) that are written by different researchers with different (research) purposes and perspectives aggregated into groups of chapters based on the particular conceptual slice of governance addressed by the research; e.g., board dynamics and behavior or the "level" of the governance such as the super-governance of various types of collaboratives. Its purpose is to give the readers—those interested in the state of nonprofit governance research—an overview of its current state. Be prepared to deal with the terminology (and academic neologisms) used in this discipline. (One author used *generative* 11 times in her paper.)

FOOD FOR THOUGHT

"It will be of little avail to the people that the laws are made by men of their own choice if the laws be so voluminous that they cannot be read, or so incoherent that they cannot be understood."

James Madison, *Federalist No. 62*, The Senate, Independent Journal, February 27, 1788

As the nonprofit sector becomes more complex ... research becomes more challenging and the line between nonprofit and government more blurry.

The first chapter, written by Cornforth "set(ting) the scene for the rest of the book," summarizes his intent in doing this compilation of articles—to "present some new theoretical perspectives[1] and empirical research on nonprofit governance" from scholars in the United Kingdom, Canada, the United States, and Australia, but more specifically—in order to (1) "get inside the boardroom and develop a deeper understanding of board processes and behavior;" (2) "apply a range of informative theories,"[2] some previously ignored; (3) "pay greater attention to how governance structures and relationships change over time and are influenced by contextual factors;" and (4) to go "beyond the study of single boards to examine the operation of multi-level, multi-actor governance structures" and "help set a new agenda for nonprofit research." This is an ambitious agenda for a 288-page book.

The book is composed of 14 chapters that are book-ended by Cornforth's opening chapter and closed with a chapter by Saul Saliponte (emeritus professor at Weatherhead School of Management, Case Western Reserve University), who presents his research taxonomy ("themes") of emerging nonprofit governance research and his recommendations for the future, derived from "a wholistic and long term view of the field." The themes are (1) "decomposing behavior ... to (reveal) underlying interactions that can inform governance practice and research;" (2) "using ... behavioral theories (that) provide(s) significant new insights into governance problems;" (3) "identifying and interpreting these behaviors" to understand them in context; (4) to "understand the complexity of governance processes;" and (5) to develop research designs that "combine exploratory, qualitative research with quantitative research," giving the potential to both identify and test relevant concepts and propositions. He elaborates on each and discusses several of the foregoing chapters in light of this taxonomy. He then reviews a selection of studies from the book (and elsewhere) to illustrate these themes.

The fairly long second chapter by David Renz (co-authored with postdoctoral fellow Fredrik Andersson), director of the Midwest Center for Nonprofit Leadership (Henry Bloch School of Management of the University of Missouri–Kansas City), is an ambitious review of the field of nonprofit governance research with a particular focus on the use of various governance theories applied to an increasingly complex nonprofit world.

Renz provides a useful summary of the theories in general use and their weaknesses. He also points out that as the nonprofit sector becomes more complex—often taking on, by various arrangements, governmental

functions—research becomes more challenging and the line between nonprofit and government more blurry. For example, chapter 11 by David Mullens looks at this issue in English public housing governance arrangements as England has increasingly "privatized"—turned management over to nongovernmental nonprofits. He highlights this body of research and suggests that future work must look beyond the immediate structure of particular boards and look at governance from a more wholistic approach (higher "levels"), considering networks, affiliations, collaboratives, and the like and how they are structured and governed.

In the second part of the chapter—Renz's review of the research since about 2000—is useful, since he provides in summary form the findings of key aspects of research to date. This portion addresses the findings by "level": individual level, governance level, organizational level, and interorganizational level. Of particular value is the summary of the effectiveness findings by governance attributes for each level. As examples, he notes that research generally finds that board members need three types of competencies: cognitive intelligence, emotional intelligence, and social intelligence. He discusses research findings concerning patterns of leadership of the chair and what seems to be the most effective (using that particular researcher's definition of an effective board)—and notes that interpersonal and engagement skills, particularly, have a positive impact on the board's ability to work together (anyone surprised?). Another observation is that research he reviewed reveals that a CEO who is also the chair results in "lower levels of board engagement."

Interestingly, in this section he acknowledges that there is "not yet consensus regarding what constitutes effectiveness," but that studies regarding "board capacity" and performance are prevalent enough to discern conclusions. For example, "well grounded board development impacts board effectiveness"; there is "a relationship between board member commitment and board performance" (and length of membership); thoughtful recruitment, orientation, and evaluation makes a difference; and board competencies and organizational performance are positively correlated. There are several other brief gleanings of interest from the research literature covered in this chapter.

Chapter 3, by Chao Guo et al. (associate professor of Nonprofit Management, Indiana University–Purdue University), is also a summary but from the view of "the theoretical developments in the study of nonprofit governance from the perspective of critical and democratic theories," particularly issues of "social inequities, oppression and systemic inequality as well as on the operation of privilege." They conclude the chapter with recommendations for a research agenda. Their section in the chapter on democratic perspectives struck me as particularly useful for users of the Policy Governance® system regarding ownership considerations and the concepts surrounding the idea of representation. Policy Governance is strongly based on the idea of accountable representation (of ownership).

Chao Guo et al. suggest four forms of representation: formal, descriptive, symbolic, and substantive ("how organizations act in the interest of constituents"). They acknowledge Judith Freiwirth's concept of Community-Engagement Governance™ as part of this genre of emerging representational forms. The essence of their discussion is summed up by the growing interest of "how boards can meaningfully embody and represent community interests, and how they can become pathways to broadened citizen participation." (Think public school board.)

Chapters in Parts 2, 3, 4, and 5 of the book deal with behavioral issues affecting board governance. Respectively, the sections deal, generally via a small number of case studies, with, (1) understanding board member behavior (such as chairmanship and

WHEN WE SAY ...

Board Leadership's mission is "to discover, explain and discuss innovative approaches to board governance with the goal of helping organizations achieve effective, meaningful, and successful leadership to fulfill their missions."

Board Leadership aims to fulfill this mission by engaging its readers in a lively and illuminating inquiry into how board governance can be made more effective. This inquiry is based on three key assumptions:

- Boards exist to lead organizations; not merely monitor them.
- Effective board governance is not about either systems, structures, processes, theories, practices, culture, or behaviors—it is about all of them.
- Significant improvements are likely to come only through challenging the status quo and trying out new ideas in theory and in practice.

Uniquely among regular publications on board governance, *Board Leadership* primarily focuses on the job of board leadership as a whole, rather than on individual elements of practice within the overall job.

Over time, *Board Leadership* will provide a repository of different approaches to governance created through its regular "One Way to Govern" feature.

Here's what a few of the key terms we use mean to us:

- **Innovative:** Creating significant positive change.
- **Approaches to:** principles, theories, ideas, methodologies, and practices.
- **Board governance:** The job of governing whole organizations. ❑

antecedents to [improved] deliberation and decision making [Brown]); (2) board-level processes and behavior (sociocultural learning, psychological [psychoanalytic] issues that may underlie group dynamics, and the board dynamics of monitoring), especially where there is the vexing issue of asymmetry of knowledge and information between CEO and board; (3) changing governance structures and relationships (board-staff dynamics, Community-Engagement Governance™ by Freiwirth, who proposes a constitutional-wide [think community and stakeholders] structural model to assure wide engagement in governance) and the evolution of governance structures in the English public-housing sector, where the government has been increasingly contracting out the management of housing to nonprofits and the effect it was having on board structure of these community nonprofits and their behavior ("professionalization"); and (4) studies in multilevel (nested) governance, adaptive approaches to various types of collaboratives and what seems to work or not.

Personal Observations and Takeaways

To get to the value in this book, one must wade through a lot of academic sociological research-ese. There is a great deal of self-referencing among this group of writers and an abundance of cross-citations. You will also read a lot of research design discussions. Of note (at least to me, as someone trained in formal disease research) is that several authors acknowledge a lack of agreement of what governance is, much less good governance. Actually, I believe that Cornforth's offered definition in the first chapter is pretty good and could be used elsewhere: "the system and processes concerned with ensuring the overall direction, control and accountability of an organization" (pp. 4–5). It would be unthinkable to me not to define the purpose—the end I am attempting to effect or study, in this case "good (effective?) governance" or something similar. Once there is at least an operational definition, then one can ask the question, "Does the process, dynamic, or structure under study accomplish that effect to some detectable degree?"

Thinking of publishing in **Board Leadership**? *Contact managing editor Caroline Oliver for criteria at coliver@goodtogovern.com*

Nothing is carved in stone, and the board's behavior and effectiveness will not stay stable without conscious, intentional, thoughtful action.

What I did find particularly useful here is that most of the research chapters are each composed of small numbers of case studies of various forms. An experienced governance consultant/analyst will learn much from the cases, quite apart from the research conclusions, design issues, and theory fitting that the author(s) engage in. Also, although the section themes differ, most deal with behavioral issues of some type and the impact on governance. Even the structural choices an organization makes, including multilevel or collaborative structures, have an impact on behavior and the success of the governance.

Another important reminder, reinforced by the case studies, is that governance structure and dynamics are constantly morphing over time due to changing circumstances, unstable power and politics, changing revenue base, regulations, board composition, and the like. Nothing is carved in stone, and the board's behavior and effectiveness will not stay stable without conscious, intentional, thoughtful action. In fact, it may need to change to adjust to its environment. Expect it.

I like to characterize board governance as composed of three conceptual domains. The first is that of structural matters (size, meeting frequency, member terms, limits, composition, acquisition of members, who chairs, etc.). The second is the domain of board behavior—its dynamic as a group, power usage, and what leads to poor or good decision making. The third domain is the process the board uses to accomplish its governance product (decisions and "voice"). The Policy Governance system approaches governance primarily from the process-product perspective, but as analysts, users, and consultants, we need to become knowledgeable and competent in all three domains. If structure is not well designed, it negatively impacts the other two domains, and if there is a poor and counterproductive dynamic, poor and hasty decisions (or none) result. Each domain needs the others to be as optimized in terms of governance as a system to the extent possible. It is a system and these domains are interdependent. ❑

Notes

1. In nonprofit governance research parlance, a "theory" is a perspective on governance purpose through the lens of a set of assumptions and a derived rationale. For example, common theories would be Agency Theory, Stewardship Theory, or Resource Dependence Theory. Each of these try to answer the "why" or role of the governance, but with a different answer.
2. Ibid.

Richard Biery can be contacted at rmbiery@broadbaker.com.

Events

(continued from front page)

Pat Knoll, Parliamentarian, about practical board leadership methods and to network with the chairs of other boards using Policy Governance.

For more information about this and other Governance Coach events, see www.governancecoach.com.

October 8, 2014

The OnTarget Board Member: 8 Indisputable Behaviours, Toronto, Ontario, Canada

— Toronto, Ontario, Canada

Learn about good governance in a one-day session with Catherine Raso. The "8 Behaviours" is a unique and simple approach to understanding the critical things that your board must do to reduce liability, increase transparency, improve accountability, and improve role clarity.

For more information, see www.CMRaso.com.

October 9, 2014

Advanced Monitoring Workshop for CEOs and Executive Directors

— Toronto, Ontario, Canada

This session with Catherine Raso is for those who prepare monitoring reports for submission to their boards. Participants will learn how to interpret policies, create operational definitions, and gather data. Workshop size is limited.

For more information, please visit www.CMRaso.com.

October 9–10, 2014

BoardSource Leadership Forum: Governance by Design

— Washington Hilton, Washington, DC

The BoardSource Leadership Forum is the largest annual convening of US nonprofit board leaders, involving more than 700 board members, chief executives, staff, and nonprofit professionals for two days in discussing the newest thinking and best practices in nonprofit governance.

For more information, see https://www.boardsource.org/eweb/blf-2014/.

October 12–14, 2014

National Association of Corporate Directors (NACD) Board Leadership Conference

— Gaylord National Resort, National Harbor, Maryland

This conference aims to address emerging issues, share innovative ideas, shape new initiatives, and further the pursuit of exemplary board leadership with more than 1,000 corporate boardroom leaders.

For more information, see http://bit.ly/WCJ5Xn.

October 22–23, 2014

Policy Governance: Behind the Scenes of a Successful Board

— Niagara Falls, Ontario, Canada, with Jannice Moore

A workshop for executive assistants, board secretaries, board assistants, and other administrative staff who wish to successfully enhance their board's activities.

For more information, see www.governancecoach.com.

November 5, 2014, and five following Tuesdays

Foundations of Sociocracy

— 4:00 p.m.–6:00 p.m. US Pacific time zone (GMT–8)

Sociocracy, also known as "Dynamic Governance," has been defined as a system of governance, using consent-based decision making among equivalent individuals and an organizational structure based on cybernetic principles. Issue 134 of *Board Leadership* tells you more.

For more information, see http://bit.ly/1mDP8jh.

February 20–21, 2015

International Policy Governance Association Consultants' Forum

— Orlando, Florida

For more information, contact ceo@policygovernanceassociation.org.

February 20–21, 2015

12th International Policy Governance Association Conference: Leading Together

— Renaissance Harbour Hotel, Vancouver, British Columbia, Canada

Preconference sessions include a full-day Policy Governance orientation. Two full days of other workshops on wide-ranging governance system topics.

For more information, see www.policygovernanceassociation.org. ❑

WRITING FOR *BOARD LEADERSHIP*

***Board Leadership* welcomes articles from governance practitioners, researchers, and consultants on topics related to the discovery, explanation, and discussion of innovative approaches to board governance. If you have something new to say or want to provide a new perspective on something already said, please get in touch to discuss your idea further and to get a copy of our publishing criteria. Email: coliver@goodtogovern.com.** ❑

How Are You Doing?

(continued from page 3)

In any case, I make the following suggestions for boards getting started on governance.

For the board member's understanding and overload problem, why, in this day of modern technology, can systems not be set up to provide directors with a dashboard report automatically as part of board papers? Why should they be expected to do all the analysis? It can easily be automated, but it rarely is.

For the absence of nonfinancial indicators, I suggest that board members should be reasonably content with financial indicators. The reason for this is that board members are like doctors examining a patient, and financial indicators are like symptoms. Financial indicators tell us that there is a problem, but maybe we need a specialist to diagnose the illness. (See Figure 3.)

Financial indicators fall into a few categories. They are well within the scope of even the least financially oriented individuals. And finance is too important to leave to the financial specialists. Dashboards bring the financial results to them and ring appropriate alarm bells without any specialist knowledge. Mainly, we want to know the position and the trend with regard to:

- Growth
- Profitability
- Liquidity
- Risks
- Efficiency
- Return on investment

A gauge and a graph for each of these on a single page gives instant information. It is not completely comprehensive, but it is much better than most board members are used to. If there is a worrying trend, then they are alerted to look deeper. For example, the symptom of poor growth and declining liquidity quickly leads to examination of competitiveness-related matters such as inefficient operations or poor marketing.

Financial indicators have a further advantage over nonfinancial indicators. They are the common denominator for comparison between one organization and another. Financial indicators are always the same. Nonfinancial indicators differ from one entity to another. A sugar plantation might measure *yield per acre*, where a port measures *speed of turnaround* per ship; a hospital measures *patient waiting times*; and a school measures *pass rates*. With nonfinancial indicators, we are comparing apples to oranges.

Even with nonprofit, voluntary, or state-owned organizations, where we are not concerned with profitability, we are still interested in income and expenditure.

Nonfinancial indicators, benchmarks, and targets are more difficult to set, but they can be set in an arbitrary manner. We should not let the perfect become the enemy of the good. In Policy Governance circles, I hear the statement, "A crude measure of the right thing is better than an exact measure of the wrong thing." We put in the crude measure of the right thing and then we refine it over time as a pattern builds up.

My advice is to set benchmarks and indicators and then make dashboards. Improve them later. I understand that the Policy Governance equivalent—the CEO's provision of data for the monitoring of his or her "reasonable interpretations"—can and often is translated into dashboards.

To conclude: Why are dashboards so important?

- They allow us to focus on the problems without distraction. In the same way as in a car, we can concentrate on the road without worrying about the oil pressure. We want to know the oil pressure only if a warning light comes on.
- Dashboards are the ultimate change management tools. I defy anyone to observe a negative trend, report after report and meeting after meeting, without being stimulated to corrective action. Dashboards counteract denial and stimulate action.
- Dashboards remove the need for specialist knowledge. You don't need to know how to calculate a liquidity ratio to observe a worrying liquidity trend.
- Dashboards automatically improve board process. Everyone takes responsibility for financial indicators.
- Dashboards allow directors and managers to do their jobs. Directors are alerted to the symptoms, and they ensure that management focuses on the cause.

Finally, dashboards cross borders. Indicators are comparable from language to language and from standard to standard. A negative trend is a negative trend regardless of accounting standards. In governance, dashboards are the ultimate simplicity and, as Leonardo da Vinci said, "Simplicity is the ultimate sophistication." ❑

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Callan

Glossary of Investment Terms

The following Glossary of Investment Terms was prepared by Callan Associates.

A

Absolute Return Strategy – An absolute return strategy aims to produce positive returns in any market environment, primarily through the use of various hedge fund strategies.

Accumulated Benefit Obligation (ABO) – The ABO is an approximate measure of the liability of a retirement plan assuming immediate termination.

Active Duration Strategy – Active duration refers to a style of fixed income investing that actively manages portfolio duration to reflect expected changes in interest rates. Managers that employ this strategy/style are sometimes called "interest rate anticipators."

Active Management – Active management is a form of investment management that involves actively managing investment securities with the objective of earning positive risk-adjusted returns.

Actuary – A specialist in the application of mathematics, probability, statistics and risk theory to financial problems involving future uncertainty. These uncertainties are usually associated with life insurance, property and casualty insurance, annuities, pension or other employee benefit plans and investments.

ADV Part I, II – A disclosure document that all Registered Investment Advisors are required to file (and update annually) with the Securities and Exchange Commission. Part II of the ADV is required to be delivered to a client prior to or in conjunction with entering into a contract with an advisor.

All Cap Strategy – All cap managers invest in small, mid and large cap equity securities.

Alpha – Alpha is a coefficient used to measure risk-adjusted performance. As such, alpha measures the excess return associated with a security or portfolio over the market return. Alpha can be used to measure a manager's contribution to performance due to active management. A positive alpha indicates that the investment manager was able to earn incremental return over the market return.

Alternative Investments – The term "alternative investments" refers broadly to non-traditional investment strategies such as hedge funds, private equity, distressed debt, commodities and futures.

American Depository Receipt (ADR) – A financial asset (receipt) issued by U.S. banks as a substitute for actual ownership of shares of foreign stocks. ADRs are traded on U.S. stock exchanges.

Annuity – A financial product sold by financial institutions and designed to provide payments to the holder at specified intervals.

Arbitrage – A strategy that attempts to exploit price inefficiencies of identical or similar financial securities.

Arithmetic Return – The arithmetic return is the sum of periodic returns divided by the number of periods. This is also called the simple average return and can be contrasted with **Geometric Return**.

Adjustable Rate Mortgage (ARM) – A real estate mortgage agreement between a lending institution and a borrower in which the interest rate is not fixed but changes over the life of the loan at predetermined intervals.

Asset Allocation – The distribution of assets across cash equivalents, and real estate. An asset allocation plan is an integral part of an institution's investment strategy. Importantly, it determines an optimal allocation of assets to achieve the maximum risk-adjusted performance while taking into consideration the institution's risk tolerance and investment horizon.

Asset Backed Security (ABS) – A bond or note that is backed by a basket of assets. These assets are pooled to reduce risk through the diversification of the underlying assets. Securitization also makes these assets available for investment to a broader set of investors. These asset pools can be comprised of credit card receivables, home equity loans, auto loans or esoteric investments such as aircraft leases.

Asset Class – An asset class is a grouping of similar investments or assets, such as stocks, that have a distinguishable risk and return pattern.

Asset Liability Modeling – The process of projecting future changes in assets and liabilities. In relation to pension plans, it is used to provide an insight into the likely effect of different asset allocation strategies on a plan's future financial position.

Auditor's Report – Often called the "accountant's opinion". It is the statement of the accounting firm's opinion of the corporation's financial statements. A "clean" opinion indicates that the reports conform to the normal and generally accepted practices of accountancy.

Automatic Reinvestment – An automatic reinvestment plan means that an investor has authorized the purchase of additional shares of a mutual fund or stock with dividends and capital gain distributions.

B

Backwardation – A market condition in which a futures price is lower in the distant delivery months than in the near delivery months.

Balanced Fund – A balanced fund is an investment product that combines equities and bonds. Balanced funds typically exhibit less volatility than equity funds, but more volatility than bond funds.

Barbell Strategy – A "barbell" is a fixed income investment strategy in which short-term and long-term securities are overweighted in a portfolio while intermediate securities are underweighted. Compare to **Bullet Strategy.**

Basis Point (bp) – A basis point is equal to 1/100 of 1% and is generally used to describe changes in interest rates or yields and absolute yield spreads. It is also used in reference to investment fees.

Bear Market – A prolonged period of declining asset prices accompanied by widespread pessimism.

Benchmark – A proxy against which the investment performance of a manager is compared to determine whether the manager has added value.

Beneficiary – A pension fund beneficiary is one who is entitled to receive benefits from a pension plan.

Beta – Beta is a quantitative measure of the "systematic risk" or "market risk" of an equity security or portfolio. Beta measures the volatility of a security or portfolio relative to the overall market, where the beta of the market is equal to 1.0. A security or portfolio with a beta greater than 1.0 would be more volatile than the market, whereas a security or portfolio with a beta less than 1.0 would be less volatile than the overall market. More specifically, if the beta of a portfolio is 1.3, a 1 percent increase in the market would imply a rise of 1.3% for the portfolio. Conversely, a portfolio with beta of 0.9 would imply an increase of only 0.9% for a market increase of 1.0%.

Blue Chip Stocks – Equity shares of older, established companies such as General Motors or IBM. Most blue chip companies pay regular dividends.

Bond – A bond is a debt instrument issued by entities such as corporations, municipalities, federal, state and local government agencies for the purpose of raising capital through borrowing. Bonds typically pay interest

periodically while repaying the principal, or par value, at maturity. Bonds with maturities of five years or less are often called notes.

Bond Discount – The amount by which a bond's face or par value exceeds its market value.

Bond Maturity – The date on which a bond's principal becomes due and payable.

Bond Quality Ratings – A system, typically ranging from AAA to D, for measuring the relative investment qualities of bonds. The highest investment quality and least investment risk is generally AAA-rated, while the lowest investment quality and greatest investment risk bonds bear a rating of D. Several agencies provide the rating systems for companies' credit: Standard & Poor's, Moody's Investor Services and Fitch are used most commonly.

Bottom Up Analysis – A process of investing that focuses foremost on security analysis. Industry and economic analyses are of secondary consideration. The opposite of **Top Down Analysis.**

BRIC Countries – "BRIC" countries refer to the rapidly developing countries of Brazil, Russia, India and China.

Bridge Loan – A short-term loan provided while longer-term financing is being finalized, thus allowing for business to proceed uninterrupted.

Broker – An agent who acts as an intermediary between a buyer and a seller and usually charges a commission. Investment brokers need a license to act as a broker.

Broker/Dealer – A broker/dealer is any individual or firm in the business of buying and selling securities for itself and others. Broker/dealers must register with the SEC. A broker executes orders on behalf of his/her clients. A dealer executes trades for his/her firm's own account. Securities bought for the firm's own account may be sold to clients or other firms or become a part of the firm's holdings.

Brokerage Window – A brokerage window allows an individual to self-direct trading within a brokerage's offering through a retirement plan such as a 401(k). As opposed to being limited to the investment options within a sponsored 401(k), investors have the option to set up a "window," which allows them to trade most listed stocks, mutual funds and exchange-traded funds. May also be known as a "self-directed account" (SDA) or "self-directed brokerage account" (SDBA).

Bull Market – A prolonged period in which asset prices rise faster than their historical average.

Bullet Strategy – A fixed income strategy in which intermediate maturity fixed income securities are overweighted in a portfolio and short- and long-term fixed income securities are underweighted. It is the opposite of a **Barbell Strategy.**

Business Cycle – A business cycle refers to a predictable, long-term pattern of alternating periods of economic growth (recovery) and decline (recession), characterized by changing employment, industrial productivity and interest rates.

Buy-Side – The portion of the securities business in which securities are purchased and sold for money management purposes, rather than for underwriting. The opposite of **Sell-Side.**

C

Call Option – An option contract that gives the holder the right to buy a certain quantity of an underlying security from the writer of the option at a specified price (the strike price) and up to a specified date (the expiration date).

Cap Rate – Short for "capitalization rate," the cap rate is used mainly in real estate investing. It is a real estate asset's first year of net operating income divided by the asset's purchase price.

Capital Appreciation Return – A measure of the gain or loss of a security or portfolio due only to the change in the value of the asset or assets (does not include earned income). The capital appreciation-only portion of the total return is calculated by finding the percentage gain or loss in the market value of the assets over a time period, taking into account any asset purchases or sales during the period.

Capital Asset Pricing Model (CAPM) – An economic model for valuing stocks based upon the theory that investors demand higher returns for taking on more risk. It can be used to price an individual security (asset) or a portfolio. The CAPM evaluates a security's relationship with expected return and systematic risk (beta) to predict how the market will price a security in relation to its risk.

Capital Stock – All equity shares representing ownership of a business, including preferred and common stock.

Capitalization – The total amount of the various securities issued by a corporation. Capitalization includes debt, stock and retained earnings. It is not the same as **Market Capitalization.**

Capitalization Weighted Market Index – In a capitalization weighted market index, each security affects the value of the index in proportion to its market capitalization. Examples include the Nasdaq Index and the S&P 500 Index. See **Equal Weighted Index** as a comparison.

Cash Equivalent – This term includes all cash investments and investments that can be readily converted into cash.

Cash Sweep Accounts – A cash sweep account is used to "hold" all contributions and income from a portfolio, which are generally swept into a money market fund.

Certificate of Deposit (CD) – A bank certificate of deposit is a FDIC-insured security issued by banks or savings and loans for a specified time period, generally between 30 days and six years.

CFA (Chartered Financial Analyst) – A designation awarded by the CFA Institute to experienced financial analysts. CFA's must pass a set of rigorous examinations, as well as meet specific work experience requirements and agree to uphold a standards-of-conduct agreement.

CFP (Certified Financial Planner) – A designation granted by the College for Financial Planning to individuals who complete a series of educational requirements, courses and examinations in the areas of personal financial and retirement planning and who pledge to a code of ethical standards and continuing education.

Closed-End Fund – A closed-end fund has a fixed number of shares outstanding and trades on an exchange like a stock. Closed-end funds issue a fixed number of shares to the public in an initial public offering, after which time the shares are bought and sold on a stock exchange. The share price in a closed-end fund is determined entirely by market demand, so shares can either trade above (at a premium) or below (at a discount) the net asset value, which is the market value of the assets in the fund.

Collateralized Debt Obligation (CDO) – An investment grade security backed by a pool of bonds, loans and/or other assets. It is similar to a CMO in that it is issued in tranches with differing return/risk profiles.

Collateralized Loan Obligation (CLO) – A CDO that is backed by a portfolio of corporate loans rather than other types of debt.

Collateralized Mortgage Obligation (CMO) – An investment grade fixed income security backed by a pool of mortgages and structured to include several classes of maturities called tranches. Each tranche offers a different risk/return profile.

Commercial Mortgage-Backed Securities (CMBS) – CMBS are publicly traded bond-like products that are based on underlying pools of commercial mortgages.

Commercial Paper – Commercial paper refers to short-term debt instruments issued by corporations. Maturities of commercial paper are generally between 1 day and 270 days. The debt is usually issued at a discount to reflect prevailing market interest rates and is rated by the major rating agencies.

Commingled Fund – An investment fund that is similar to a mutual fund in that investors purchase and redeem units that represent ownership in a pool of securities. Investments are pooled in commingled funds to reduce management and administrative costs.

Commission – The fee paid to a broker to execute a trade or facilitate a transaction.

Commission Recapture – An agreement by which a plan sponsor earns credits based upon the amount of brokerage commissions paid. These credits can be used for services that will benefit the plan, such as consulting services, custodian fees, or hardware and software expenses.

Commodity – A commodity is a basic good, usually a raw product used in commerce, which is interchangeable with other commodities of the same type and is generally traded via futures contracts. Examples include oil, gold and wheat.

Common Stock – Securities representing equity ownership in a corporation, providing voting rights and entitling the holder to a share of the company's success through dividends and/or capital appreciation. In the event of liquidation, common stockholders have rights to a company's assets only after bondholders, other debt holders and preferred stockholders have been satisfied.

Compounding – The term used to describe an exponential increase in the value of an investment due to interest earned on interest.

Consumer Price Index (CPI) – The U.S. Department of Labor's measure of change in the U.S. cost of living to gauge the rate of inflation. A survey is conducted monthly to monitor the cost of various consumer goods such as food, housing and transportation. Costs are tracked over time to monitor overall living expenses.

Contango – A condition in which the distant delivery price for futures exceeds the current (spot) price, often due to the costs of storing and insuring the underlying commodity. The opposite of **Backwardation.**

Contingent Deferred Sales Charge (CDSC) – A CDSC is a type of sales charge levied on investors in a back-end load fund.

Contrarian Strategy – This term is used to describe an investment style in which managers select stocks that are out of favor or that have little current market interest on the premise that gains will be realized when the stocks return to favor.

Convertible Bond – A bond which may, at the holder's option, be exchanged for common stock. Convertible bonds provide investors with the downside price protection of a straight bond and potential upside from appreciation in the price of the underlying common stock.

Convexity – A measure which describes the degree to which the duration of a bond will change for a given change in interest rates. Positive convexity implies that duration will increase as interest rates fall, and, thus, a

bond's price will rise at an increasing rate as rates decline. Conversely, negative convexity implies that prices will rise at a decreasing rate as interest rates fall.

Core Bond Strategy – A fixed income strategy that typically invests in investment grade bonds of various types and maturities.

Core Equity Strategy – An equity strategy where the portfolio's characteristics are similar to those of the S&P 500 Index but that has the objective of adding value over the index, typically from sector and/or security selection.

Core International Strategy – This is an international equity strategy that invests mostly in large capitalization stocks in developed countries with liquid markets, thus having characteristics similar to the Morgan Stanley Capital International (MSCI) EAFE Index.

Core Plus Bond Strategy – A fixed income strategy that permits managers to use out-of-index instruments such as high yield, global and emerging market debt to add value over the index.

Core Real Estate Strategy – This real estate strategy is the most conservative approach to real estate investing. Core real estate is defined as real estate investments that are well leased and are typically over 85% leased to high credit-quality tenants. The total return is driven more by income than by capital appreciation.

Corporate Credit – A corporate credit is term that refers to a debt security issued by a corporation.

Correlation – Correlation measures the degree to which two variables, such as asset classes, move in relation to each other. Correlation is a commonly used tool in asset allocation studies and in portfolio management.

Coupon Rate – The coupon rate is the stated interest rate paid on a fixed income security.

Credit Quality – Credit quality is a term used to refer to the creditworthiness of a fixed income security. See **Bond Quality Ratings.**

Cumulative Return – The cumulative return for a portfolio or an asset is its cumulative compound return over the full length of a specified time period. This measure is not annualized and as such, represents the actual total return of the portfolio or asset over the full period.

Currency Hedging – A process involving the purchase and sale of forward currency contracts to manage currency risk.

Currency Return – A rate of return calculated from the change in exchange rates between one currency and another.

Current Yield – A security or portfolio's current yield is computed as its coupon or dividend rate divided by its market value.

CUSIP Number – A cusip is a unique number given to each stock and bond by the Committee for Uniform Securities Identification Procedures (CUSIP) of the American Bankers Association. A CUSIP number consists of nine digits, the first six uniquely identify the issuer and are assigned to issuers in alphabetic sequence; the next two characters (alphabetic or numeric) identify the specific security. The ninth digit is a check digit.

Custodian – The organization (usually a bank) that keeps custody of securities and other assets for purposes of safekeeping. The bank collects income, processes trades, provides reporting and other functions. The bank does not have fiduciary responsibility. The fees charged for these services are known as custodial fees.

Cyclical Stocks – Cyclical stocks move directly with the business cycle; generally advancing as business conditions improve and declining when business slackens. Steel, chemical, textile, and machinery stocks are

included in this category. To offset cyclical factors, many companies today are striving to diversify their operations among other fields and products.

D

Debenture – An unsecured bond backed by the general credit of the issuer. Debentures rank below secured debt. A subordinated debenture is an unsecured bond that ranks after secured debt and after regular debentures.

Debt Securities – A security representing a loan given to an investor by an issuer. Fixed income securities, or bonds, are debt securities.

Defensive Bond Strategy – A conservative fixed income investment strategy with the objective of minimizing interest rate risk by investing only in high quality short to intermediate maturity securities.

Defined Benefit Plan – A type of employee benefit plan in which benefit payments are predetermined by a formula. The employer is obligated to contribute funds into a defined benefit plan based on an actuarially determined formula that takes into consideration the age of the workforce, length of service and the investment earnings that are projected to be achieved. Defined Benefit Plans are overfunded if the present value of the future payment obligations to employees is less than the current value of the assets in the Plan and underfunded if the obligations exceed the current value of these Plan assets. The *Pension Benefit Guarantee Corporation* insures a specified percentage of these future pension benefit payments on a per employee basis.

Defined Contribution Plan – A type of employee benefit plan in which both the employee and the employer makes contributions. Each employee's account value is determined by the contribution made and the return on investment. A 401(k) Plan is a type of defined contribution Plan.

Deflation – A phase of the business cycle during which prices are declining. It is the opposite of inflation.

Derivative – An instrument whose price is determined by the price of an underlying asset. Examples include futures contracts, forward contracts, swaps and options.

Directed Brokerage – Circumstances in which a board of trustees or other fiduciary requests that the investment manager direct trades to a particular broker so that the commissions generated can be used for specific services or resources.

Directional Strategy – A directional strategy seeks to take advantage of the direction of the market. Market timing strategies fall into this category.

Disbursement – A cash or asset withdrawal from a portfolio.

Discount Rate – The discount rate is the rate charged to financial institutions that borrow funds directly from the Federal Reserve. It is also the term used to refer to the rate at which cash flows are discounted in a present value calculation.

Distressed Debt – Is an alternative asset class consisting of below-investment-grade bonds or bank debt securities of companies generally either in, or near bankruptcy protection or in the process of restructuring. Typically, these securities yield more than 1000 basis points over the risk-free rate as determined by the U.S. Treasury yield curve.

Diversification – The allocation of funds across different asset classes or securities within a portfolio.

Divestiture – The act of selling off an asset or business, typically because it is under-performing financially or no longer fits within a company's strategic plan.

Dividend Yield – The current annualized dividend paid on a share of common stock, expressed as a percentage of the stock's current market price.

Dollar Cost Averaging – A process of buying securities at regular intervals with a fixed dollar amount. At regular intervals, investors spend a specific dollar amount rather than purchase a specific number of shares. Thus, more shares are purchased when prices are low and fewer shares are purchased when prices are higher.

Dollar-Weighted Rate of Return – An investment's rate of return that equates the present value of its cash flows plus its final market value to its current price. It is also known as the Internal Rate of Return (IRR).

Downgrade – A negative change in the quality rating of an equity or fixed income security.

Duration – Duration is a measure of the price sensitivity of a bond to changes in interest rates. The longer the duration, the more sensitive the price of a bond will be to fluctuations in interest rates.

Dynamic Asset Allocation – An asset allocation strategy in which the asset mix is changed in response to changing market conditions.

E

Economically-Targeted Investment (ETI) – An ETI is an investment where the goal is to target a certain economic activity, sector or area in order to produce corollary benefits in addition to the main objective of earning a competitive risk-adjusted rate of return.

Effective Maturity – The effective maturity is the measure of years to expected maturity of a fixed income security. It takes into account any put or call options embedded in the security, expected sinking-fund payments and mortgage principal prepayments.

Effective Yield – The effective yield of a fixed income security is the actual total annualized return that would be realized if held to maturity.

Efficient Market Theory – A theory stating that a security's market price equals its true investment value at all times since all information is fully and immediately reflected in market prices.

Efficient Portfolio – An efficient portfolio is one that provides the maximum expected return for a given level of risk or, otherwise stated, as the minimum risk for a given level of expected return.

Emerging Markets – Emerging markets include markets in developing countries and economies. These markets are characterized by more aggressive risk/return profiles than their developed counterparts.

Employee Retirement Income Security Act (ERISA) – The Employee Retirement Income Security Act is a 1974 law governing the operation of most private pension and benefit plans. The law eased pension eligibility rules, set up the **Pension Benefit Guaranty Corporation**, and established guidelines for the management of pension funds.

Employee Stock Ownership Plan (ESOP) – A retirement savings program in which the employees own stock in the company for which they are employed.

End Point Sensitivity – The performance of a manager/fund varies depending on the ending point used to analyze performance. Therefore, it is important to look at performance for a number of market cycles or time periods to gain an accurate assessment of the manager or fund's performance.

Endowment Funds – Investment funds established for the support of institutions such as colleges, private schools, museums, hospitals, and foundations. The investment income may be used for the operation of the institution and for capital expenditures.

Enhanced Indexing – Enhanced Indexing combines elements of passive and active management. Enhanced managers typically have smaller deviations from the benchmark seeking to add value in a risk controlled fashion.

Equal-Weighted Composite – This term refers to a composite of returns for an investment manager that gives equal consideration to each portfolio's return regardless of the size of the portfolio.

Equal-Weighted Index – In an equal-weighted index, each security affects the value of the index equally. The Value Line Index is an example. Compare to **Capitalization Market Weighted Index**.

Equity – The ownership interest of common and preferred stockholders in a company.

Equity Market Neutral Strategy – A strategy in which the manager tries to profit from both increasing and decreasing prices by taking long and short positions of the same dollar amount but in different stocks. Thus, the overall strategy is neutral to market movements.

Equity Multiple – The total cash contributions divided by the initial equity.

Event Driven Strategy – A hedge fund strategy in which the manager takes significant positions in a certain number of companies with "special situations" such as mergers or acquisitions.

Excess Return – Excess return is a portfolio's return minus its benchmark return. In fixed income this measure is often adjusted for risk.

Exchange Traded Fund (ETF) – A fund that tracks an index, a commodity or a basket of assets like an index fund, but trades like a stock on an exchange, thus experiencing price changes throughout the day as it is bought and sold.

Expense Ratio – A mutual fund's cost of doing business, disclosed in the prospectus as a percent of assets. The ratio includes expenses such as management and advisory fees, overhead costs, distribution and advertising (12b-1) fees.

F

Face Value – See Par Value.

Federal Funds Rate – The interest rate charged on overnight loans between banks so that they maintain the minimum required level of reserves at the Federal Reserve.

Federal Reserve System – The Federal Reserve is the central bank for the United States and, as such, regulates the financial system. Its responsibilities include: conducting monetary policy, regulating banks, maintaining the stability of the U.S. financial system and providing financial services to the U.S. Government.

Fiduciary – A person legally appointed and authorized to hold assets in trust for another person/entity. Fiduciaries are legally obligated to manage assets for the benefit of the entity and not for his/her profit.

Financial Accounting Standards Board – A governing body established in 1973 to define and monitor the usage of generally accepted accounting principles called GAAP.

Financial Industry Regulatory Authority (FINRA) – A regulatory body created in July 2007 through the consolidation of the National Association of Securities Dealers and the New York Stock Exchange's regulation committee. The Financial Industry Regulatory Authority is responsible for regulating business between brokers, dealers and the investing public. By consolidating these two regulators, FINRA aims to eliminate regulatory overlap and cost inefficiencies.

"Flight to Quality" – "Flight to quality" is an expression used in reference to investor demand for high quality investment securities (generally U.S. Treasuries) in times of uncertainty, or real or perceived risk.

Fundamental Research (Fundamental Analysis) – An analysis of industries and companies based on such factors as sales, assets, earnings, products or services, markets and management. As applied to the economy, fundamental research includes consideration of gross national product, interest rates, unemployment, inventories, savings and other broad macroeconomic factors.

Funded Status – The status of a pension plan that has accumulated and set aside assets for the payment of retirement benefits to employees. Unfunded plans, also called pay-as-you-go arrangements, do not have assets set aside and retirement benefits are usually paid directly from employer contributions.

Funding Risk – The risk that anticipated contributions to a pension plan will not be made by the employer.

Futures Contracts – Futures contracts are financial contracts that obligate the buyer to purchase an asset (and the seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price. Futures can be used either to hedge or to speculate on the price movement of the underlying asset.

G

Generally Accepted Accounting Principles (GAAP) – Generally accepted accounting principles established by the Financial Accounting Standards Board in 1973.

Geometric Return – A method of calculating an investment return for a specified time period that takes into account compound growth. For example, suppose a $100 portfolio returned +25% in the first quarter (ending value is $125) but lost 20% in the second quarter (ending value is $100). Over the two quarters the return was 0%; this is the geometric return. The **return**, however, would simply average the two returns: (+25%) (.5) + (-20%) (.5) = +2.5%.

Glidepath – The path in which assets in a lifecycle fund gradually shift from an absolute return orientation to a capital preservation orientation as individuals move closer to retirement.

Global Industry Classification Standards (GICS) – A standardized classification system for equity sectors developed jointly by Morgan Stanley Capital International (MSCI) and Standard & Poor's. The GICS methodology is used by the MSCI indexes, which include domestic and international stocks, as well as by a large portion of the professional investment management community.

- **Consumer Discretionary Sector** – Includes those industries that tend to be the most sensitive to economic cycles. Examples include: automotive companies; manufacturers of textiles, apparel and leisure equipment; hotels; restaurants; media production companies; and consumer retailers.
- **Consumer Staples Sector –** Comprises companies whose businesses are less sensitive to economic cycles. These include: manufacturers and distributors of food, beverages and tobacco: producers of non-durable household goods and personal products; food and drug retailing companies; and hypermarkets and consumer super centers.
- **Energy Sector –** Encompasses companies whose businesses are dominated by construction or the provision of oil rigs, drilling equipment and other energy-related services and equipment. Also includes companies engaged in the exploration, production, marketing, refining and/or transportation of oil and gas products, as well as coal and other consumable fuels.

- **Financials Sector –** Includes companies across the financial spectrum: banking, mortgage finance, consumer finance, specialized finance, investment banking, brokerage, asset management and custody, corporate lending, insurance, and real estate, including REITs.
- **Health Care Sector** – This sector encompasses two main industry groups: companies that manufacture health care equipment and supplies or provide health care-related services. This includes distributors of health care facilities and organizations; companies involved in the research & development, production and marketing of pharmaceuticals and biotechnology products.
- **Industrials Sector –** Includes companies whose businesses are dominated by the manufacture and distribution of capital goods. These include: aerospace and defense; construction; engineering and building products; electrical equipment and industrial machinery; commercial services and supplies; and transportation services, including airlines, couriers and marine, road and rail transportation infrastructure.
- **Information Technology Sector** – Covers the following areas: technology software and services; information technology consulting; data processing and outsourced services; technology hardware and equipment, including manufacturers and distributors of communications equipment, computers and peripherals; electronic equipment and related instruments; semiconductors; and semiconductor equipment manufacturers.
- **Materials Sector –** Encompasses a wide range of commodity-related manufacturing industries. Included in this sector are companies that manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including producers of steel.
- **Telecommunications Services Sector –** Contains companies that produce communications services primarily through a fixed-line, cellular, wireless, high bandwidth and/or fiber optic cable network.
- **Utilities Sector** – This includes electric, gas or water utilities, or companies that operate as independent producers and/or distributors of power.

Global Investment Performance Standards (GIPS) – GIPS are a set of ethical standards developed by the CFA Institute to establish a global standard for computing and reporting on investment management performance results. Adherence to GIPS ensures fair representation and full disclosure of all performance results.

Global Macro Strategy – This is a hedge fund strategy in which investments in stocks, bonds, and currencies are allocated across countries. These decisions are based upon macroeconomic forecasts such as economic outlooks and political views for various countries.

Global Strategies – Global investment strategies are those that invest in both foreign and domestic equity securities. Some invest in currency as well.

Government Bond – A bond issued by the U.S. Government or one of its agencies.

Growth Equity Managers – Managers that invest in companies that are expected to have above average prospects for long-term growth in earnings and profitability.

Guaranteed Investment Contract (GIC) – A contract between an insurance company and a corporate profit sharing or pension plan that guarantees a specific rate of return on the invested capital over the life of the contract. Although the insurance company takes all market, credit and interest rate risks on the investment portfolio, it can profit if its returns exceed the guaranteed amount. For pension and profit-sharing plans, guaranteed income contracts are a conservative way of assuring beneficiaries that their money will achieve a pre-determined rate of return.

H

Hard Dollars – Cash paid for services rendered. (See **Soft Dollars** as comparison.)

Hedge – A transaction or strategy designed to reduce investment risk and often involving derivative instruments such as futures contracts or options.

Hedge Fund of Funds – A hedge fund product which invests in other hedge fund strategies in order to diversify across hedge fund manager styles.

High Yield Strategy – Fixed income investment strategy that invests in below investment grade fixed income securities. As a result, security selection often involves intensive fundamental analysis of the company.

I

Immunization – A bond portfolio structured to achieve a target level of return in the face of changing interest rates. Immunization strategies combine short-term and long-term bonds to produce a predictable rate of return regardless of movements in interest rates.

Incentive Fee – Also called a Performance Fee, an incentive fee is a fee paid to an investment manager based upon the performance of the fund or portfolio. It is typically determined by a pre-specified formula and it can be in addition to a flat fee charged by the investment manager.

Income Return – A measure of the gain of a security or portfolio due only to income earned.

Indenture – An indenture is the written contract between a bondholder and an issuer that stipulates the terms of the bond.

Index – Indices are imaginary portfolios of securities that replicate a market or a portion of a market. An appropriate index can be used as a benchmark to evaluate an investment manager's performance.

Index Fund – A passively-managed investment in a diversified portfolio of financial assets designed to mimic the performance of a specific market index.

Inflation – A period in which the general level of prices for goods and services is increasing, and, thus, purchasing power is decreasing.

Information Ratio – The Information Ratio is a risk statistic that measures the excess return per unit of residual "non-market" risk in a portfolio. The ratio is the excess return per unit of risk that is due solely to the specific risks associated with the securities in the portfolio, rather than market risk. Non-market risk can be eliminated through diversification.

Initial Public Offering (IPO) – An IPO is a company's first sale of stock to the public. Securities offered in an IPO are often, but not always, those of young, small companies seeking outside equity capital and a public market for their stock.

Insider Trading – Illegal trading of securities based on non-public information.

Interest Rate Risk – Uncertainty in the return of a bond that is caused by changes in interest rates.

Internal Rate of Return (IRR) – See Dollar Weighted Return.

Investment Company – A corporation or trust that invests the capital of shareholders, generally through mutual funds. In the U.S., most investment companies are registered with and regulated by the Securities & Exchange Commission under the Investment Company Act of 1940.

Investment Grade – Investment grade bonds are those rated Baa or higher by Moody's and higher than BBB by Standard and Poor's.

Investment Management Consultant Association (IMCA) – The Investment Management Consultants Association is a Denver-based non-profit association that was founded in 1985. The association certifies consultants as Certified Investment Management Analysts (CIMA) after consultants attend its intensive program. IMCA holds the U.S. Patent office trademark for CIMA designation.

J

Junk Bonds – A term used in reference to high yield or below investment grade bonds.

J Curve – A theory stating that a country's trade deficit will initially worsen after a depreciation of its currency because higher prices of imports will more than offset the reduced volume of imports.

L

Laddered Strategy – A fixed income strategy in which a portfolio is structured with bonds maturing at regular intervals. The bonds are generally evenly distributed between short term, intermediate term, and long term maturities. As short term bonds mature, the funds received are reinvested in long term bonds.

Large Cap Strategy – Equity managers who invest primarily in large capitalization range companies. The average market capitalization of a security is $5 billion or higher.

Leverage – In finance, leverage is using given resources in such a way that the potential positive or negative outcome is magnified. It generally refers to using borrowed funds, or debt, to try to increase returns. In Real Estate, leverage is essentially the debt that is placed on a property in order to enhance return. For instance, if a property is 70% leveraged and the value is $10 million, then the amount of leverage is $7 million and the amount of equity is $3 million.

Leveraged Buy-Out (LBO) – An LBO is the acquisition of a company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition. Generally, the assets of the company being acquired are used as collateral for the loans. The purpose of leveraged buyouts is to allow investors to make large acquisitions without having to commit a lot of equity capital. LBO's are done predominantly using private equity funds.

Lifecycle Funds – Lifecycle Funds refer to balanced investment vehicles, typically mutual funds, which match their asset allocation and risk level to an individual's retirement year. Also called Target **Maturity** Funds (or: target retirement funds?), these funds are designed to shift assets away from equity and into fixed income as an investor nears retirement.

Limited Partnership – A form of a partnership composed of a general manager responsible for the day-to-day management of the business, and several limited partners who invest money, but have limited involvement in the management of the firm, and, thus, limited liability for its financial obligations.

Liquidity – In general, liquidity refers to the ease by which a financial asset can be converted into cash. Liquidity is often more narrowly defined as the ability to sell an asset quickly without having to make a substantial price concession.

Liquidity Risk – Liquidity risk is the risk stemming from a lack of marketability of an investment, which makes it difficult to sell when desired.

Load – The percentage commission, or charge, on a mutual fund. The fee may be a one-time charge at the time of purchase (front-end load) when the fund is sold (back-end load), or an annual fee known as a 12b-1 fee.

London Interbank Overnight Rate (LIBOR) – LIBOR is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. LIBOR is fixed on a daily basis by the British Bankers' Association and is derived from a filtered average of the world's most creditworthy banks' interbank deposit rates. It is the world's most widely used benchmark for short-term interest rates.

Long Position – Being "long" implies an ownership position in a security or derivative instrument.

Long/Short Strategy – A hedge fund strategy that holds long positions in undervalued companies and shorts stocks that are deemed to be overvalued.

Lump Sum Distribution – Payment of an entire amount due at one time rather than in installments.

M

Management Fee – A management fee is the fee charged by an investment management company for its investment advisory services.

Manager Search – A process used to identify and select appropriate investment managers. Manager searches are an important phase in the implementation of a strategic investment plan. A manager search process typically includes a detailed analysis of both quantitative and qualitative data about the prospective manager.

Manager Structure – A framework for various types of investment managers hired to manage investment funds.

Mark-to-Market – The process of adjusting the value of a portfolio or financial instrument to reflect daily changes in its market price.

Market Capitalization – The market value of all the shares of common stock issued by a company at a point in time.

Market Proxy – The benchmark used to represent either the broad market or a segment of the market. The selection of an appropriate market proxy is critical in the determination of a relevant alpha, beta, R-squared and standard error.

Market Risk – See **Systematic Risk**

Market Timing – A form of active management that attempts to add value by "timing" the market, allocating funds between asset classes based on short-term expectations of movements in the capital markets. OR: A form of active management that attempts to add value by "timing" the market. This is achieved by allocating funds between asset classes based on short-term expectations of movements in the capital markets.

Market Value – The market value is the current price of a security or portfolio.

Market Value Weighted Index – See **Capitalization Weighted Market Index.**

Master Trust – A pooling of a plan sponsor's assets, including multiple managers and multiple plans, under one trust agreement.

Maturity Date – The date at which a bond's principal value is repaid, along with any accrued income due.

Median – The middle value in a distribution, above and below which lie an equal number of values. The median value ranks in the 50th percentile in a distribution.

Mezzanine Debt – Debt that is used to bridge the gap that may exist in an investment where the equity and senior debt (i.e. first mortgage) are not sufficient to close on a real estate investment. For example, if an investor were to put in 10% equity and the lender would only provide a 70% first mortgage, then mezzanine debt could be secured to fill in the 20% financing gap. Typically, mezzanine debt is short-term and has a much higher coupon rate than the senior debt.

Microcap Strategies – Microcap managers invest in very small companies, typically those with capitalizations of less than $500 million.

Middle Capitalization Strategies – Equity managers who invest primarily in middle capitalization range companies with market capitalizations between core equity companies and small capitalization companies. The average market capitalization of a security is approximately $3 billion, but the range can be from $1 billion to $5 billion.

Modern Portfolio Theory (MPT) – Modern portfolio theory (MPT) proposes that rational investors will use diversification to "optimize" their portfolios to earn the highest return for a given level of risk. Essential to this theory is the quantification of the relationship between risk and return, and the assumption that investors must be compensated for assuming additional risk.

Money Market Funds – Markets in which financial assets with a maturity of less than one year are traded. Money market funds are expected to invest in low-risk, highly liquid, short-term financial instruments. The net asset value is kept stable at $1 per share.

Mortgage-Backed Securities – Securities backed by a pool of mortgage loans.

Multi-Strategy – A hedge fund investment style that employs various strategies simultaneously. Managers generally overweight or underweight different strategies to capitalize on current investment opportunities.

Municipal Bond – A municipal bond is a debt instrument issued by a municipality such as a state or city. They are often called munis for short. Income paid on these bonds is exempt from federal, and sometimes state, income taxes.

Mutual Fund – A mutual fund is a professionally managed investment fund. Mutual funds are managed like large private accounts, but there are certain tax differences between an individually managed account and owning shares in a mutual fund.

N

NASD, Inc. (NASD) – Formerly known as the National Association of Securities Dealers, NASD, Inc. is an industry organization representing people and companies in the securities business. It is the primary self-regulatory organization with responsibility for regulating the industry with oversight from the SEC.

NASDAQ Stock Market – The largest U.S. electronic stock market with roughly 3200 companies listed.

National Association of Real Estate Investment Trusts (NAREIT) – NAREIT is the representative voice for U.S. real estate investment trusts (REITs) and publicly-traded real estate companies worldwide. Members are REITs and other businesses that own, operate, and finance income-producing real estate, as well as those firms and individuals who advise, study and service those businesses.

National Council of Real Estate Investment Fiduciaries (NCREIF) – NCREIF is made up of investment managers, plan sponsors, academicians, consultants, appraisers, CPA's, and other service providers that have a significant involvement in pension fund real estate investments. NCREIF serves the industry as an independent and non-partisan "Central Repository" of real estate performance information.

Net Absorption – Net absorption is the net change in occupied space in the real estate market.

Net Asset Value (NAV) – The value of one mutual fund share.

No Load Fund – A mutual fund which charges little or no commission (load) to the buyer of its shares.

Non-Directional Strategy – Non-directional hedge fund strategies aim to produce a positive return in any market environment by exploiting market inefficiencies. An example would be an/the **Equity Market Neutral Strategy.**

O

Opportunistic Real Estate Strategy – This strategy incorporates various tactics, such as taking public real estate companies, private or taking construction and leasing risk through ground-up development. Investments are highly leveraged (up to 90%) and the majority of the return, over two-thirds, is expected to come from appreciation.

Opportunity Cost – The difference between the performance of an actual investment and a desired investment adjusted for fixed costs and execution costs. The performance differential is a consequence of the inability to implement all desired trades.

Option – A contractual agreement that conveys the right, but not the obligation, to buy (receive) or sell (deliver) a specific security at a stipulated price and within a stated period of time. An option is part of a class of securities called derivatives, so named because these securities derive their value from the worth of an underlying security.

Over-the-Counter Market (OTC) – A market for securities not traded on a formal exchange, but rather through a dealer network. OTC stocks are often those of companies without sufficient shares, stockholders or earnings to warrant listing on an exchange. The OTC market is also the principal market for all types of bonds.

P

Par Value – In the case of a common stock, par is the dollar amount assigned to the share by the company's charter. In the case of preferred stocks, par is the dollar value upon which dividends are figured. With bonds, par value is the face amount or principal amount of the bond that will be repaid at maturity.

Passive Management – For a given asset class, the process of buying a diversified portfolio which mimics the overall performance of the asset class or relevant market index.

Pension Benefit Guaranty Corporation (PBGC) – The federal agency, established as a nonprofit corporation, charged with administering the plan termination provisions of ERISA Title IV and the Multi-employer Pension Plan Amendments Act of 1980. Employers pay premiums to the PBGC, which guarantees benefits for participants and beneficiaries when defined benefit plans terminate.

Pension Fund – An investment fund established by a corporation or organization to manage retirement benefits and investments for its employees.

Pension Protection Act of 2006 (PPA) – An act of legislation that made a large number of reforms to U.S. pension plan laws and regulations. This law made several pension provisions from the Economic Growth and Tax Relief Reconciliation Act of 2001 permanent, including the increased IRA contribution limits and the increased salary deferral contribution limits to a 401(k). It also attempted to strengthen the overall pension system and reduce the reliance on the federal pension system and the Pension Benefit Guaranty Corporation.

Performance Attribution – The process of evaluating the factors that contribute to the total rate of return of a portfolio.

Plan Sponsor – Any entity that establishes a pension plan, including private business entities acting for their employees, state and local entities operating on behalf of their employees, unions acting on behalf of their members and individuals representing themselves.

Preferred Stock – A class of stock with a higher rank than common stock. Holders of preferred stock have a claim on earnings before common stock shareholders.

Prepayment Risk – Prepayment risk refers to the risk associated with certain fixed income securities, namely mortgages, in which there exists an uncertainty as to whether and when unscheduled repayments of principal will occur. This is a "risk" in that prepayments can negatively affect the total return of the security.

Present Value – Present value is the value on a given date of a future payment/receipt or series of future payments/receipts, discounted to reflect the time value of money, usually by the current relevant market interest rate.

Price Spread – The difference between the bid price and the ask price of a security. For example, when a stock is quoted "50 bid, offered at 52," a two point spread is said to exist.

Primary Dealer – Primary dealers are banks or broker dealers who may trade directly with the Federal Reserve. They are required to make bids/offers when the Fed conducts its open market operations and to actively participate in U.S. Treasury auctions. These dealers purchase the majority of the U.S. Treasury securities sold at auctions and resell them to investors.

Prime Brokers – A prime broker offers a special group of services to certain clients. The services provided under prime brokering are securities lending, leveraged trade executions, and cash management, among other things. Prime brokerage services are provided by most large brokers.

Prime Rate – The lowest interest rate charged by commercial banks to their most credit-worthy customers. Other interest rates, such as personal, automobile, commercial and financing loans are often pegged to the prime.

Principal Value – See Par Value.

Private Equity – Equity capital that is made available to companies or investors but not quoted on a stock market. The funds raised through private equity can be used to develop new products and technologies, to expand working capital, to make acquisitions, or to strengthen a company's balance sheet.

Private Placement – A private placement involves the direct sale of a newly issued security to one or a small group of large institutional investors. Private placements are not traded on an exchange.

Probability Distribution – A distribution of all the values that a random variable can assume and the probability associated with each.

Profit Sharing Plan – A profit sharing plan is a retirement plan that receives contributions as a percentage of the sponsoring company's profits.

Projected Benefit Obligation (PBO) – A measure of a pension plan's liability at a specified date, assuming that the plan is ongoing and will not terminate in the foreseeable future.

Prospectus – A legal document stating the complete history and current status of a security issue. In accordance with the Securities Act of 1933, a prospectus must be made available to all interested purchasers in advance of a public offering. This formal written document must describe the plan for a proposed business enterprise, or the facts concerning an existing one that an investor needs in order to make an informed decision. Prospectuses are also used by mutual funds to describe the fund objectives, risks, fees and other essential information.

Prudent Man (Prudent Man Rule) – A concept born from the 1830 Massachusetts court decision of *Harvard College v Armory* that described the duty owed by a trustee to its beneficiaries: "All that can be required of a trustee to invest is, that he shall conduct himself faithfully and exercise sound discretion. He is to observe how men of prudence, discretion, and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested."

Prudent Expert Rule – As a revised version of ERISA's Prudent Man Rule, ERISA requires that a fiduciary manage a portfolio "with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." The Prudent Expert Rule differs from the classic Prudent Man Rule in that managers must act with "familiarity" on such matters as money management rather than just simple prudence.

Purchasing Power Parity (PPP) – An economic theory that estimates the amount of adjustment needed on the exchange rate between countries in order to equalize their purchasing power.

Purchasing Power Risk – Purchasing power risk is the risk that a portfolio or investment will earn a return less than the rate of inflation.

Put Option – An option contract that gives the holder the right to sell a certain quantity of an underlying security to the buyer of the option at a specified price (the strike price) up to a specified date (the expiration date).

Q

Qualified Default Investment Alternative (QDIA) – Default investment options in retirement plans that are granted safe harbor under ERISA according to the 2006 Pension Protection Act. QDIA's include balanced funds, target retirement funds (lifecycle funds) and managed accounts, but not stable value or money market funds, which have historically been used as the default option in retirement plans.

Qualified Retirement Plan or Trust – A plan that meets the requirements of Internal Revenue Code Section 401(a) and the Employee Retirement Income Security Act of 1974 (ERISA), and is thus eligible for favorable tax treatment. These plans offer several tax benefits: they allow employers to deduct annual allowable contributions for each participant; contributions and earnings on those contributions are tax-deferred until withdrawn for each participant; and some of the taxes can be deferred even further through a transfer into a different type of IRA.

R

Real Estate Investment Trust (REIT) – A corporation or trust that uses the pooled capital of many investors to purchase and manage income property and/or mortgage loans. REITs are traded on major exchanges. They are also granted special tax considerations.

Real Income – Income adjusted for inflation.

Real Rate of Return – A real rate of return is adjusted for inflation.

Recession – A recession is a period of general economic decline, officially marked by two consecutive quarters of a decline in GDP growth**.**

Refunding – Issuing a new bond to retire an existing bond. Refundings allow issuers to take advantage of lower interest rates by issuing new bonds at a lower rate and retiring older, higher rate bonds.

Rights – Rights give existing shareholders privilege to purchase a company's new securities, normally at a discount to the current market. Usually, the privilege must be exercised within a relatively short time span.

Risk-Adjusted Return – The return on an asset or portfolio, modified to explicitly account for the risk of the asset or portfolio.

Risk-Free Rate of Return – The risk-free return is the return on assets with zero risk. Rates on short-term U.S. Treasury bills are generally used to represent a risk-free rate.

Rollover – A tax-free reinvestment from a qualified retirement plan into an Individual Retirement Account (IRA) or other qualified plan, or from one IRA to another, as defined by the IRS.

R-squared (R^2) – R-squared measures the overall strength of "explanatory power" of a statistical relationship. In general, a higher R-squared means a stronger statistical relationship between two variables. An R-squared of 1 (100%) indicates that the statistical relationship has perfect explanatory power.

S

Safe Harbor Rules – A series of guidelines set forth by the Department of Labor that when fully complied, *may* limit a fiduciary's liabilities. Safe Harbor Rules require: the use of "prudent experts;" a due diligence process for selecting managers; that investment discretion be given to selected managers; that managers acknowledge a co-fiduciary status; and that these managers be monitored.

Secondary Market – The secondary market is the market in which securities are traded between investors rather than between the issuer and the investor.

Securities and Exchange Commission (SEC) – The SEC is the primary federal regulatory agency for the securities industry. Its responsibility is to promote full disclosure and to protect investors against fraudulent and manipulative practices in the securities markets.

Securities Lending – A loan of a security from one financial institution or dealer to another. The borrower provides the lender with collateral in the form of cash or securities and the interest earned on the collateral compensates the lender for loaning the securities to the borrower.

Securitization – The process of pooling together similar non-tradeable investments or assets and then issuing one tradeable security backed by those assets.

Sell Side – Sell side is used to describe the portion of the securities business whereby brokers or dealers sell securities to customers. The sell side includes retail brokers, institutional brokers and traders and their research departments. .

Separate Account – Money gathered from one source that is managed in a distinct and separate individual account.

Settlement Date Performance – A performance measurement methodology that bases calculations on the settlement date, rather than the trade date of transactions.

Sharpe Ratio – The Sharpe ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the risk-free return (usually the 3 month Treasury bill) from a portfolio's return and then dividing this excess return by the portfolio's total standard deviation (a measure of portfolio volatility, or risk). The ratio thus represents the return gained per unit of risk taken.

Short Sale – A market transaction whereby an investor sells a borrowed security in anticipation of a decline in its price. The investor must then purchase the security to cover the loan by a pre-specified point in time. As a result, the investor has a short position.

Short-Term Investment Fund (STIF) – A bank fund that is invested in low-risk, highly liquid short-term financial instruments. The average portfolio maturity is generally 30 to 60 days.

Size-Weighted Composite – An investment manager's composite of portfolio returns that weights each portfolio's return based on the value of the account.

Small Capitalization Strategies – Small cap strategies invest in companies with relatively small market capitalizations. The cut-off point for small capitalization varies from manager to manager but on average includes firms with capitalization of $100 million - $1 billion.

Small/Mid Capitalization Strategies (SMID) – SMID managers invest in both small cap and mid cap companies and are generally benchmarked against an index such as the Russell 2500 or an S&P equivalent.

Socially-Targeted Investment – An investment which is made based upon social rather than financial guidelines. See also **Economically-Targeted Investment**.

Soft Dollars – Soft dollars are non-cash payments for services that are generated by institutional trading through a particular broker, often called a "Directed Broker." Soft dollars must be used to pay for goods or services that directly benefit the retirement plan.

Solvency – The ability of a corporation to meet its long term fixed expenses and to accomplish long term expansion and growth. (From "Investopedia")

Sortino Ratio – The Sortino ratio is a measure of risk-adjusted return. It measures a portfolio's return over a benchmark divided by downside risk, or the standard deviation of negative returns. It is similar to the Sharpe ratio, except that it differentiates between upside volatility ("good" volatility) and downside volatility ("bad" volatility).

Specific Risk – Specific risk is the risk attributable to an individual security and not related to market movements. This type of risk can be eliminated through diversification. It is also know as **unsystematic** risk.

Spot Price – The spot price is the current price at which a commodity can be traded.

Spot Rate – The yield-to-maturity of a 0% coupon Treasury for a given maturity.

Standard Deviation – Standard deviation is a statistical measure of portfolio risk. It reflects the average deviation of returns from their mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns has been.

Strategic Asset Allocation – Strategic asset allocation requires rebalancing back to a pre-determined policy allocation at specified time intervals or when established tolerance bands are violated.

Strip – Stripping is the process of removing (stripping) coupon payments from a bond and then selling these separate parts as a zero-coupon bond and disparate coupon payments. A **Treasury Strip** is a Treasury bond that has been stripped of its coupon payments and, thus, has a 0% coupon rate. It is also known as a Zero Coupon Bond.

Structured Investment Vehicle (SIV) - A structured investment vehicle (SIV**)** is an arbitrage fund that invests in a range of asset-backed securities and/or corporate bonds. An SIV is formed to profit from the difference between short-term borrowing rates and returns available on longer-term investments. The risk that arises from the transaction is twofold. First of all, the solvency of the SIV may be at risk if the value of investments falls below the amount borrowed to finance its investments. Secondly, there is a liquidity risk that, as the SIV borrows short term and invests long term, the amount owed will come due before the asset matures. Unless the borrower can refinance at favorable rates, they may be forced to sell the assets into a depressed market.

Structured Note – A structured note is a debt security with interest payments that are determined by a formula tied to the movement of an interest rate, stock, stock index, commodity, currency or other index.

Style – The description of the type of approach and strategy utilized by an investment manager. For example, an equity style is determined by portfolio characteristics such as: market capitalization of issues, price to earnings ratios and dividend yield. See Callan Style Groups in Appendix 1.

Swap – A contract between two parties in which the parties promise to exchange sets of payments on scheduled future dates. Swaps are not guaranteed by any clearinghouse and are, therefore, susceptible to default. Because of this, the contracting parties are sometimes required to post collateral. There are four primary classes of swaps defined by the type of their underlying instrument: interest rate, equity, currency, and commodity.

Systematic Risk – Systematic risk is the risk inherent to an entire market rather than an individual security. This type of risk cannot be eliminated through diversification. It is also known as “market risk.”

T

Tactical Asset Allocation – Tactical Asset Allocation involves actively altering allocation among broad asset classes in an attempt to capture the highest returns. It is also referred to as “market timing.”

Target Maturity Fund – A type of investment fund that is sometimes available in defined contribution plans where the investor selects a “maturity,” typically the investor’s retirement date. The fund is managed accordingly by investment professionals such that its asset allocation becomes more conservative over time in anticipation of funds being withdrawn at maturity.

Technical Analysis – Technical analysis involves studying market activity, primarily through the use of charts, to forecast future price movements.

10 K – An SEC-required annual report on a publicly-traded company that provides a comprehensive overview of the company's state of business. The 10-K must be filed within 90 days after the company's fiscal year end. A 10-Q report is filed quarterly.

Ticker – A group of letters assigned to a company when listed on an exchange.

Time Weighted Rate of Return – A method of computing investment performance that excludes the effect of cash flows by calculating sub-period returns. Because cash flows (contributions and withdrawals into a portfolio) are not controlled by an investment manager, it is inappropriate to measure performance net of the effect of these flows. Time weighted performance calculation is widely accepted as the appropriate method of performance measurement because it removes the impact of cash flows.

Top Down Analysis – A process of investing that focuses foremost on economic and industry analysis to structure portfolios. The opposite of **Bottom Up Analysis.**

Total Return – Total return is a standard measure of performance that includes capital appreciation or depreciation, realized gains and losses, and income.

Trade Date Performance – Performance measurement that bases all calculations of performance on the trade date of a transaction rather than the settlement date.

Trading Halt – A temporary suspension of the trading of a security on one or more exchanges, usually in anticipation of news or due to an order imbalance.

Transfer Agent – The organization employed by a bank or trust company to cancel and issue certificates, maintain records and process mailings to investors.

Transition Manager – A manager whose specific role is to transition one portfolio of assets to another while minimizing costs.

Treasury Bill – A U.S. Government security with a maturity of less than one year. It is often used as a measure of risk-free return**.**

Treasury Inflation-Protected Securities (TIPS) – TIPS are securities issued by the U.S. Treasury that offer inflation protection to investors. They have a fixed coupon rate but their principal value is adjusted at periodic intervals to reflect changes in the Consumer Price Index (CPI), the most commonly used index to measure inflation. For example, given a rise in the CPI, the principal value of the TIPS will be adjusted upward so that the amount of interest earned on the securities also increases.

Treasury Strip – See Strip.

Trustee – A person, bank or trust company that has responsibility over receipt, disbursement and investment of funds in a trust.

12b-1 Fee – The percent of a mutual fund's assets used to defray marketing and distribution expenses such as advertising and commissions paid to dealers. 12b-1 fees are named for the corresponding SEC rule, passed in 1980. A fund's prospectus outlines 12b-1 fees, if applicable. A true "no load" fund has neither a sales charge nor a 12b-1 fee.

U

Underfunded Pension Plan – An underfunded plan is a defined benefit plan that has liabilities that exceed its assets.

Underwriting – The process by which investment bankers raise investment capital from investors for corporations or governments by issuing debt or equity securities.

Unlisted Securities – Securities which are not listed on an organized stock exchange, such as those traded over-the-counter.

Unrelated Business Taxable Income (UBTI) – UBTI refers to income that may result in taxable income to an otherwise tax-exempt entity.

Unsystematic Risk – Unsystematic risk is the firm-specific risk of a security or portfolio. This type of risk can be eliminated through diversification. It is the portion of the total risk of a security or portfolio that is unique to the security or portfolio itself and is not related to the overall market.

Upgrade – A positive change in the quality rating of an equity or fixed income security.

V

Vacancy Rate – Vacancy rate refers to the percentage of stock in a real estate market that is not occupied.

Value-Added Real Estate Strategy – This type of strategy involves adding incremental value to a property in order to produce a higher return than a core strategy. Typically, half of the total return will come from income and half from appreciation.

Value at Risk (VaR) – Technique used to analyze variations in performance and to estimate the amount by which a portfolio could underperform.

Value Equity Managers – Investment managers who invest in companies believed to be undervalued or possessing lower than average price/earnings ratios based on their potential for capital appreciation.

Variable Annuity – A variable annuity is an insurance contract that guarantees a minimum payment after a specified amount of time. Future payments can vary as they depend upon the performance of the underlying managed portfolio.

Variance – Variance is a measure of risk which measures volatility around an average. For example, a range of prices for a stock will have a variance that reflects the amount that its price varies from its average. Variance is useful as a risk statistic because it gives an indication of how much the value of a portfolio might fluctuate from its average over a given time.

Venture Capital – Investment in a company that is at a relatively early stage of development and that is not listed on a stock exchange.

Vesting – Acquisition by a pension plan member of an absolute right to an immediate or deferred benefit by fulfilling prescribed conditions, especially length of employment requirements.

Volatility – The degree to which an investment's market value goes up and down over time.

W

Warrant – A certificate giving the holder the right to purchase shares of stock at a stipulated price within a specified time span.

Wrap Fee – A type of charge for an investment program that bundles or "wraps" a number of services (brokerage, advisory, research, consulting, management, and others) together and covers them with a single fee based on the value of assets under management.

Y

Yield Curve – A yield curve is a line that plots interest rates, at a specific point in time, of bonds with equal credit quality, but different maturity dates. The most frequently reported yield curve compares yields on U.S. Treasury securities; typically the 3-month, 2-year, 5-year and 30-year Treasuries. This yield curve is often used as a benchmark to compare yields on other fixed income securities, such as mortgages or corporate credits. The curve is also used by investors and economists to predict changes in economic output and growth.

Yield to Maturity – Yield to maturity is the rate of return an investor will receive if a bond is held to its maturity. Yield to expected maturity is calculated as the internal rate of return, incorporating the current market value and all expected future interest and principal flows.

Callan Terminology

A

Asset Allocation Effect – Measurement that illustrates the additional return produced by the difference between the target portfolio's asset class weights and the actual plan's asset class weights. This effect is seen when a return for an asset class target in the plan is greater than the total return of the plan's target benchmark as a whole and where the actual asset class weight was greater than the target asset class weight for the time period.

Average Coupon Rate – The market value weighted average coupon rate of all securities in a portfolio. The total portfolio coupon payments per year are divided by the total portfolio par value to get the average coupon rate.

Average Moody's Quality – A measure of the credit quality of a portfolio as determined by its individual security ratings. The Moody's ratings for each security are compiled into a composite rating for the whole portfolio.

Average Price – Equal to the portfolio market value divided by the number of securities in the portfolio. Portfolios with an average price above par will tend to generate more current income than those with an average price below par.

Average Years to Stated Maturity – The market value-weighted, average time to stated maturity for all securities in the portfolio. This term does not take into account embedded options such as sinking fund payments or mortgage prepayments.

C

Cash Flow/Sales – Cash flow divided by sales. Cash flow is the cash generated by a company after all cash expenses, including income taxes and minority interest, but before provision for dividends. Expenses do not include non-cash expenses such as depreciation. Sales represent gross sales reduced by cash discounts, returned sales, etc.

Cumulative Relative Return Ratio – The cumulative relative return for a portfolio or asset measures the cumulative return relative to a specified benchmark cumulative return. A period where the portfolio underperformed the benchmark would cause the return ratio for that period to be below zero. With examining the cumulative relative return ratio, values above zero represent total performance over the period above the benchmark, and values below zero represent total performance over the period below the benchmark.

Current Yield – The current yield is the current annual income generated by the total portfolio market value. It is equal to the total portfolio coupon payments per year divided by the current total portfolio market value.

D

Diversification Ratio – Diversification Ratio is the ratio of the number of issues in the top half of the portfolio's market value divided by the number of issues in the total portfolio. This value expresses to what extent a portfolio is equally weighted versus concentrated, given the number of names in the portfolio. This value can range from a high of 50% (equal weighted) to a low of 1% (half of the portfolio is in 1% of the names).

Dividends/Cash Flow – The Dividend/Cash Flow ratio is a measure of the sustainability or safety of a given dividend payment amount. The common stock dividends are the total dollar amount of dividends for a stock

over the preceding twelve months. Cash flow is the cash generated by a company after all cash expenses, including income taxes and minority interest, but before provision for dividends.

Down Market Capture Ratio – Down Market Capture is determined by the index which has a Down-Capture ratio of 100% when the index is performing negatively. If a manager captures less than 100% of the declining market it is said to be "defensive". This statistic is not annualized.

Downside Risk – Downside Risk differentiates between “good” risk (upside volatility) and “bad” risk (downside volatility). Whereas standard deviation treats both upside and downside risk the same, downside risk measures only the standard deviation of returns that are below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

E

Earnings/Sales – This is a measure of a company's profitability, specifically measuring the relationship between the firm's costs and its sales. The value is equal to the earnings of a company divided by net sales. Earnings represent the income of a company after all expenses, income taxes, and minority interest, but before provisions for common and/or preferred stock dividends. Sales represent gross sales reduced by cash discounts, returned sales, etc.

Earnings Yield – The earnings per share of a share of a common stock for the preceding twelve months divided by the current closing price.

Effective Maturity – This is a measure of the market value weighted average of the years to expected maturity across all of the fixed income securities in the portfolio. Expected years to maturity takes into account any put or call options embedded in the security, any expected sinking-fund payments and any expected mortgage principal prepayments

Effective Yield – The effective yield is the actual total annualized return that would be realized if all securities in the portfolio were held to their expected maturities. Effective yield is calculated as the internal rate of return, using the current market value and all expected future interest and principal cash flows.

Excess Correlation – This is the correlation of one portfolio's excess return to another portfolio's excess return. Excess return is the return minus a benchmark’s return. Excess Correlation is used to indicate whether different managers outperform a market index at the same time.

Excess Return Ratio – The Excess Return Ratio is a measure of risk-adjusted relative return. This ratio captures the amount of active management performance (value added relative to an index) per unit of active management risk (tracking error against the index). It is calculated by dividing the manager’s annualized cumulative excess return relative to the index by the standard deviation of the individual quarterly excess returns. The Excess Return Ratio can be interpreted as the manager’s active risk/reward tradeoff for diverging from the index when the index is mandated to be the "riskless" market position.

F

Five Year Beta – Beta measures the sensitivity of rates of return on a fund to general market movements. As such, the beta for a portfolio is a reflection of the risk of the securities in the portfolio as compared to the broader market. This value is a composite of the individual beta values within a portfolio. The beta computation is based on the weighted average of the five year historical betas of each security in a portfolio.

Five Year Growth in Earnings – This value represents a weighted average five-year annual growth rate of earnings per common stock share.

Forecasted Earnings Yield – This yield is a forward-looking valuation measure of a company's common stock. It expresses the amount of earnings estimated for next year per dollar of current share price as a percentage of yield.

Forecasted Growth in Earnings – This growth rate is a measure of a company's expected long-term success in generating future year-over-year earnings growth. This growth rate is a market value weighted average of the consensus (mean) analysts' long-term earnings growth rate forecast for each company in the portfolio. The definition of long-term varies by analyst but is limited to a 3-8 year range. This value is expresses the expected annual growth of earnings as a percent in percent form.

G

Growth in Assets - NOT IN PEP – This value represents a weighted average five year annual growth rate of assets per common stock share. The rates of growth in assets for trailing twelve month periods are calculated using the assets-per-share values for each time period. The five-year growth in assets figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. Total Assets includes the sum of current, non-current, and intangible assets.

Growth in Book Value - NOT IN PEP – This value represents a weighted average five year annual growth rate of book value per common stock share. The rates of growth in book value for trailing twelve month periods are calculated using the book value-per-share figures for each time period. The five-year growth in book value figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. Total Book Value is the sum of the common stock outstanding, capital surplus, and retained earnings.

Growth in Cash Flows – This value represents a weighted average five year annual growth rate of cash flow per common stock share. The rates of growth in cash flow for trailing twelve month periods are calculated using the cash flow-per-share values for each time period. The five-year growth in cash flow figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

Growth in Dividends – This value represents a weighted average five year annual growth rate of dividends per common stock share. The rates of growth in dividends for trailing twelve month periods are calculated using the dividend-per-share values for each time period. The five-year growth in dividends figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

Growth in Earnings - NOT IN PEP – This value represents a weighted average five year annual growth rate of earnings per common stock share. The rates of growth in earnings for trailing twelve month periods are calculated using the earnings-per-share values for each time period. The five-year growth in earnings figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio. The number of shares in each time period is adjusted to reflect any splits, mergers, or other capital changes. In this case, the earnings per share are fully diluted and exclude extraordinary items and discontinued operations. Fully diluted earnings per share are earnings that are reduced, or diluted, by assuming the conversion of all securities that are convertible into equities.

Growth in Sales – This value represents a weighted average five year annual growth rate of sales per common stock share. The rates of growth in sales for trailing twelve month periods are calculated using the sales-per-share values for each time period. The five-year growth in sales figure is calculated for each security in a portfolio. From these individual values, a weighted average value is calculated for the portfolio.

I

Indicated Dividend Yield – The total amount of dividends paid out for a stock over the preceding twelve months divided by the closing price of a share of the common stock

Industry Concentration Return - NOT IN PEP – This measure looks at the return attributable to the difference between a portfolio's industry sector weights and the benchmark's sector weights. If the benchmark sector return is greater than the return of the benchmark as a whole and the portfolio's sector weight was greater than the benchmark weight, the portfolio will show a positive Industry Concentration Return for the time period. If the benchmark sector return is less than the return of the benchmark as a whole and the portfolio's sector weight was less than the benchmark weight, the portfolio will show a negative Industry Concentration Return for the time period.

Interest/Pretax Earnings - NOT IN PEP – This value is used as a measure of the ability of a company to meet interest payments out of earnings. The ratio is equal to the interest expense divided by earnings. Earnings is the value before: 1) interest expense, the expense of securing both short and long-term debt; 2) state, federal, and foreign taxes; 3) extraordinary items and discontinued operations; 4) provision for common and preferred dividends; and 5) minority interests, which is that portion of the consolidated subsidiary income applicable to common stock not owned by the parent company.

Issue Diversification – The number of stocks (largest holdings) making up half the market value of a total portfolio

M

Manager Selection Effect (Asset Class) – This attribution return measures the additional return produced by the managers within a management style group in the asset class compared to the return of the target benchmark for that style. Each style of an asset class whose return is higher than the target benchmark return will show a positive Manager Selection Return. Each style of an asset class whose return falls short of the target benchmark return will show a negative Manager Selection Return.

Manager Selection Effect (Total Fund) – This attribution return measures the additional return produced by the managers within an asset class in the plan compared to the return of the target benchmark for that asset class. Each asset class of a plan whose return is higher than the target benchmark return will show a positive Manager Selection Return. Each asset class of a plan whose return falls short of the target benchmark return will show a negative Manager Selection Return. The Manager Selection Effect is the compounded factor of each single time period factor over the cumulative time period.

Market Capitalization (Weighted Median) - NOT IN PEP – The weighted median market cap is the point at which half of the market value of the portfolio is invested in stocks with a greater market cap, and consequently the other half is invested in stocks with a lower market cap.

N

Net New Investment – For a portfolio or security, Net New Investment (NNI) is a measure of the net contribution of cash or assets over a period of time. At the portfolio level, Net New Investment is the net amount of contributions to the manager for the purpose of management. For a particular time period, the sum of any cash or asset contributions subtracted by any cash or asset withdrawals is the net new investment. At an asset class or security level, the Net New Investment measures the net contribution to an asset class or security. In this case, the Net New Investment is the sum of any purchases, subtracted by any sales and income.

O

OA Convexity – Convexity is a measure of the portfolio's exposure to interest rate risk. It is a measure of how much the duration of the portfolio will change given a change in interest rates. Generally, securities with negative convexities are considered to be risky in that changes in interest rates will result in disadvantageous changes in duration. The option-adjusted convexity (OA Convexity) for each security in the portfolio is

calculated using models developed by Lehman Brothers and Salomon Brothers which determine the expected stream of cash flows for the security based on various interest rate scenarios. Expected cash flows take into account any put or call options embedded in the security, any expected sinking-fund paydowns and any expected mortgage principal prepayments.

OA Duration – Duration is one measure of the portfolio's exposure to interest rate risk. In general, the higher a portfolio's duration, the more that its value will change in response to interest rate changes. The option-adjusted duration (OA Duration) for each security in the portfolio is calculated using models developed by Lehman Brothers and Salomon Brothers which determine the expected stream of cash-flows for the security based on various interest rate scenarios. Expected cash-flows take into account any put or call options embedded in the security, any expected sinking-fund paydowns and any expected mortgage principal prepayment.

P

Policy Return – The Policy Return is the portion of the Total Fund Return that is attributable to the historical policy weights and returns associated with the benchmarks used to define the target portfolio. This return is the return that would have been achieved if the plan had invested in a passive plan, replicating the target portfolio.

Price/Book Value – The Price to Book Value (P/B) is a measure of value for a company. It is equal to the market value of all the shares of common stock divided by the book value of the company. The book value is the sum of capital surplus, common stock, and retained earnings.

Price/Cash Flow – Price/Cash Flow is a measure of value for a company. It is equal to the current price per share divided by its annual cash flow per share.

Price/Earnings to Growth – Price/Earnings to Growth (or PEG) ratio is a ratio is used to determine the value of company stock while taking into account the earnings growth. The value is calculated by dividing the Price/Forecasted Earnings by the year-over-year forecasted earnings growth rate.

Price/Earnings Ratio – The Price to Earnings Ratio (P/E) is a measure of value for a company. It is equal to the price of a share of common stock divided by the earnings per share for a twelve-month period.

Price/Forecasted Earnings – This ratio is a forward looking valuation measure of a company's common stock. It encapsulates the amount of earnings estimated for next year per dollar of current share price. This value is calculated by dividing the present stock price by the consensus (mean) analysts' earnings forecasts for the next year. These earnings estimates are for recurring, non-extraordinary earnings per primary common share. The individual P/E stock ratios are then weighted by their respective portfolio market values in order to calculate a weighted average representative of the portfolio as a whole.

Price/Sales – The Price to Sales Ratio is a measure of value for a company. It is equal to the current price per share of common stock divided by its annual sales-per-share value. Sales represent gross sales reduced by cash discounts, return sales, etc.

Q

Quality Rating – A Standard and Poor's credit issue rating is a current opinion of the creditworthiness of an issuer. The S&P ratings for each security are compiled into a composite rating for the whole portfolio.

R

R&D/Sales - NOT IN PEP – Research and development expenditures divided by sales. Research and development expenses are costs that relate to the development of new products or services. Sales represent gross sales reduced by cash discounts, return sales, etc.

Real Return – Is a portfolio's return minus the risk-free rate.

Relative Cumulative Return – The relative cumulative return for a portfolio or asset measures the cumulative return relative to a specified benchmark cumulative return. A period where the portfolio underperformed the benchmark would cause the return ratio for that period to be below one. However, over the length of the entire time period, the portfolio may have a cumulative return above the benchmark. The relative return value is a ratio for which values above one represent total performance over the period above the benchmark and where values below one represent total performance over the period below the benchmark.

Relative Return Ratio – The relative return for a portfolio or asset measures the return relative to a specified benchmark return. The relative return value is a ratio for which values above zero represent a period where the portfolio outperformed the benchmark and values below zero represent a period where the portfolio underperformed the benchmark.

Relative Sector Variance – Relative Sector Variance is a measure that illustrates how aggressively the manager deviates from the sector weights of the index. This measure is simply the sum of the difference (absolute value) in the manager's sector weights from those of the index across all sectors. The higher the number the more aggressively the manager has deviated from the index sector weights.

Relative Standard Deviation – Is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A relative standard deviation of .80 would imply 20% less risk.

Residual Risk – Residual Risk is the "unsystematic", or firm-specific, risk of a security or portfolio. It is the portion of the total risk of a security or portfolio that is unique to the security or portfolio itself and is not related to the overall market. The level of residual risk in a portfolio is a reflection of the "bets" the manager places in a particular asset class or sector. Diversification can reduce or eliminate the residual risk of a portfolio.

Return on Assets (ROA) – A measure of a company's profitability, specifically relating profits to the total investment required to achieve the profit.

Return on Equity (ROE) - NOT IN PEP – Return on Equity is a measure of a company's profitability, specifically relating profits to the equity investment employed to achieve the profits. Return on Equity focuses on the returns accruing to the residual owners of a company, the equity holders. It is equal to income divided by total common equity. Income excludes all expenses, which include income taxes and minority interest, but is calculated before provision for dividends, extraordinary items, and discontinued operations. Common equity includes common stock outstanding, capital surplus, and retained earnings. The earnings per share of a firm divided by the firm's *Book Value* per share.

Return on Equity – Return on Equity is a measure of a company's profitability, specifically relating profits to the equity investment employed to achieve the profits. Return on Equity focuses on the returns accruing to the residual owners of a company, the equity holders. It is equal to income divided by total common equity. Income is after all expenses, including income taxes and minority interest, but before provision for dividends, extraordinary items, and discontinued operations. Common equity includes common stock outstanding, capital surplus, and retained earnings.

Return on Investment (ROI) - NOT IN PEP – Return on Investment is a widely used measure of business success that relates net income to invested capital (total assets). ROI provides a standard for evaluating how efficiently management uses the average dollar (or unit of currency) invested in assets, whether the investment came from owners or creditors. A higher ROI may result in a higher return on stockholder's equity (ROE).

Returns – A standard measure of performance that includes capital appreciation or depreciation as well as realized gains and losses and income.

Rising/Declining Periods – Rising/declining periods refer to the sub-asset cycles vis-à-vis the broader asset class. For example, to determine the growth equity cycle, the S&P 500 Growth Index performance is compared to the S&P 500.

S

Sector Concentration – Sector Concentration is a simple measure of diversification by sector. It illustrates how many sectors comprise half of the portfolio market value.

Stated Maturity – The average years to stated maturity is the market value weighted average time to stated maturity for all securities in the portfolio. This measure does not take into account embedded options, sinking fund payments, or prepayments.

Stock Selection Return – This attribution return measures the additional return produced by the manager's security selection within each industry sector. Each sector in a portfolio whose return exceeds the sector return of the benchmark will show a positive Stock Selection Return. Each sector of a portfolio whose return falls short of the benchmark sector return will show a negative Stock Selection Return.

Style Allocation Effect *CALL PERF MEAS TER* – This attribution return measures the additional return produced by the difference between the target management style weights in the asset class and the actual weights of the managers representing the management styles. For each time period where the return for one of the style targets in the plan is greater than the total return of the asset class target benchmark as a whole and where the actual style weight was greater than the target style weight, the style will show a positive Style Asset Allocation Effect.

Style Policy Return – The Style Policy Return is the portion of the Total Fund Return that is attributable to the historical policy weights and returns associated with the management style benchmarks used to define the target asset class mix. This return is the return that would have been achieved if the plan had invested in a passive plan replicating the target asset mix.

Style Structure Attribution – A type of performance attribution that provides historical insight into how and why actual investment plan performance has differed from the performance of a plan's target portfolio at the level of a single asset class. This analysis allows comparison of the contributions of different management styles to the Total Return of a particular asset class. The target portfolio consists of relevant benchmarks for each management style in an asset class, weighted by the planned allocation of that style to the total asset class. The Total Return of the plan is broken down into three components: Style Policy Return, Style Allocation Effect, and Manager Selection Effect.

T

Total Fund Attribution – This type of performance attribution provides historical insight into how and why actual investment plan performance has differed from the performance of a plan's target portfolio. The target portfolio consists of relevant benchmarks for each asset class in a portfolio, weighted by the planned allocation of that asset class in the investment plan. The premise of Total Fund Attribution is that actual plan performance is the result of two factors: the performance of the investment plan target asset mix, and the value added to the plan through the implementation and maintenance of the policy mix. The Total Return of the plan is broken down into three components: Policy Return, Asset Allocation Effect, and Manager Selection Effect.

Total Risk – *CALLAN PERF MEAS TER* – Total risk is a measure of the total volatility of the excess returns of an asset or portfolio. The total risk is comprised of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or firm-specific) risk.

Tracking Error - CAL RISK STAT – Tracking Error is the standard deviation of a portfolio's relative returns relative to a benchmark. Whereas the standard risk measure of standard deviation measures the absolute return

volatility, tracking error measures the volatility of the return differences between the portfolio and the benchmark over time. A portfolio that is actively managed in an aggressive manner would have a large amount of tracking error versus its index, while a portfolio that is more constrained to look like its index (an index fund being the extreme) would have smaller amounts of tracking error.

Treynor Ratio – The Treynor Ratio is a risk statistic that measures the excess return per unit of systematic market risk taken in a portfolio. The excess return is the total excess return without adjustment for risk. The ratio is equal to the excess return of the portfolio divided by the beta of the portfolio.

U

Up Market Capture Ratio – The Up Market Capture ratio is determined by the index which has an Up-Capture ratio of 100% when the index is performing positively. If a manager captures more than 100% of the rising market it is said to be "offensive." This statistic is not annualized.

W

Weighted Average Market Capitalization – The market value of all the shares of common stock issued by a company at a point in time, computed as the product of the number of shares of common stock times the current price.

Weighted Median Market Capitalization – The weighted median market cap is the point at which half of the market value of a portfolio is invested in stocks with a greater market cap, and consequently the other half is invested in stocks with a lower market cap.

Z

Z Score, MSCI Growth – The MSCI Growth Z Score is a holdings-based measure of the "growthyness" of an individual stock or portfolio of stocks based on fundamental financial ratio analysis. The MSCI Growth Z Score is an aggregate score based on the growth score of 5 separate financial fundamentals: Long Term Forward Earnings Growth, Short Term Forward Earnings Growth, Current Internal Growth (ROE * (1-payout ratio)), Long Term Historical Earnings Growth, and Long Term Historical Sales Growth. The Growth Z Score usually ranges between +3 and -3. A significant positive Growth Z-Score implies significant "growthyness" in the stock or portfolio. A Growth Z Score close to 0.0 (positive or negative) implies "core-like" style characteristics, and a significantly negative Growth Z Score implies more "valueyness" in the stock or portfolio (although MSCI Value Z Score should be used to confirm this).

Z Score, MSCI Value – The MSCI Value Z Score is a holdings-based measure of the "valueyness" of an individual stock or portfolio of stocks based on fundamental financial ratio analysis. The MSCI Value Z Score is an aggregate score based on the value scores of 3 separate financial fundamentals: Price/Book value, Price/Forward Earnings, and Dividend Yield. The Value MSCI Z Score usually ranges from +3 and -3. A significant positive Value Z Score implies significant "valueyness" in the stock or portfolio. A Value Z Score close to 0.0 (positive or negative) implies "core-like" style characteristics, and a significantly negative Value Z Score implies more "growthyness" in the stock or portfolio (although the MSCI Growth Z Score should be used to confirm this).

Z Score, MSCI Combined – The MSCI Combined Z Score is a single holdings-based measure of the "growthyness" or "valueyness" of an individual stock, or a portfolio of stocks, based on fundamental financial ratio analysis. The MSCI Combined Z Score is simply the difference between the MSCI Growth Z Score and the MSCI Value Z Score (Growth - Value). The underlying Growth Z Score is an aggregate score based on the growth scores of 5 separate financial fundamentals: Long Term Forward Earnings Growth, Short Term Forward Earnings Growth, Current Internal Growth (ROE * (1-payout ratio)), Long Term Historical Earnings Growth and Long Term Historical Sales Growth. The underlying Value Z Score is an aggregate score based on the value scores of 3 separate financial fundamentals: Price/Book value, Price/Forward Earnings, and Dividend Yield. The

MSCI Combined Z Score usually ranges between +2 and -2. A significant positive Combined Z Score implies significant "growthyness" in the stock or portfolio. A Combined Z Score close to 0.00 (positive or negative) implies "core-like" style characteristics, and a significantly negative Combined Z Score implies more "valueyness" in the stock or portfolio.