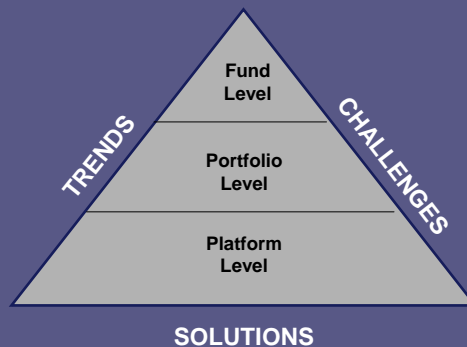


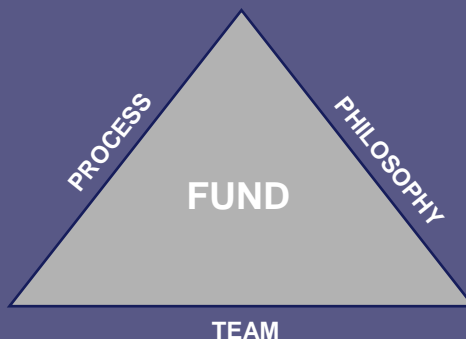
DC INVESTMENT GOVERNANCE... ...RECORDKEEPER PERSPECTIVE

Nick Iarocci, MBA, CFA
Vice President, Investment Program
Standard Life Assurance Company of Canada
September 2010

OUTLINE



GOVERNANCE AT THE FUND LEVEL



SAY WHAT YOU DO ...
... DO WHAT YOU SAY

3

GOVERNANCE AT THE FUND LEVEL (TRENDS)

CANADIAN PENSION PLANS – ASSET MIX

Asset Class	2008 %	2009 %
Cash and short term	1.9	0.3
Fixed Income (Cdn bonds, RRBs, Foreign)	29.8	34.4
Canadian Equities	19.2	14.4
US Equities	8.4	6.5
Other Equities (EAFE, Emerging Markets, Global)	21.6	18.0
Real Estate	9.0	10.8
Infrastructure	1.9	3.4
Mortgages	0.9	0.9
Venture Capital / Private Equity	4.3	6.5
Hedge Funds	1.5	2.5
Other	1.4	2.7

4

GOVERNANCE AT THE FUND LEVEL (TRENDS)

- GLOBAL MANAGER SEARCH ACTIVITY UP 22% IN 2009
- CANADIAN (DC) MANAGER SEARCH ACTIVITY UP FROM 124 TO 137 IN 2009

<u>CANADA</u>	<u>2008</u>	<u>2009</u>
FIXED INCOME	8	23
REAL ESTATE	1	7
EAFE / GLOBAL	36	50
DOMESTIC	38	22

- GLOBAL DE-RISKING TREND (LDI)
- GLOBAL CHASE FOR INCOME (HIGH YIELD)

5

GOVERNANCE AT THE FUND LEVEL (CHALLENGES)

- STYLE PURITY (PRE-PACKAGED SOLUTIONS)
- ATTRIBUTIONS (HOLDINGS VS. RETURN)
- CAP GUIDELINES COMPLIANT
- ALIGNMENT WITH MEMBER COMMUNICATIONS

6

GOVERNANCE AT THE FUND LEVEL (SOLUTIONS)



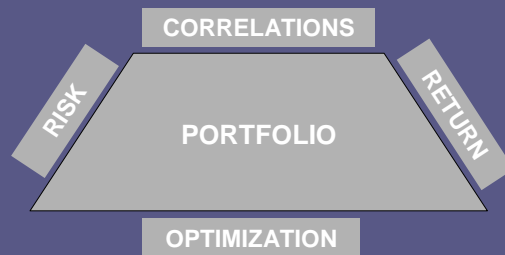
7

GOVERNANCE AT THE FUND LEVEL (SOLUTIONS)



8

GOVERNANCE AT THE PORTFOLIO LEVEL



IT'S NOT ABOUT THE INGREDIENTS...
... IT'S ABOUT THE RECIPE

9

GOVERNANCE AT THE PORTFOLIO LEVEL (TRENDS)

6 DEGREES OF DIVERSIFICATION

<u>DEGREE</u>	<u>% IMPACT</u>	<u>RESPONSIBILITY</u>
ASSET ALLOCATION	80 – 90	PLAN SPONSOR
GEOGRAPHIC DIST.	5 – 10	PLAN SPONSOR
TERM STRUCTURE	2 – 3	PLAN SPONSOR
INVESTMENT STYLE	2 – 3	PLAN SPONSOR
SECTOR WEIGHTING	< 2	INVESTMENT MGR
SECURITY SELECTION	< 2	INVESTMENT MGR

10

GOVERNANCE AT THE PORTFOLIO LEVEL (TRENDS)

- PRE-PACKAGED PORTFOLIO SOLUTIONS
- AUTO ENROLLMENT, AUTO ESCALATION, AUTO DEFAULT
- CHASE FOR YIELD OR INCOME
- TRADITIONAL TO ALTERNATIVE ASSET CLASSES
- LIMITATIONS OF MEAN-VARIANCE OPTIMIZATION

11

GOVERNANCE AT THE PORTFOLIO LEVEL (CHALLENGES)

- SOURCE AND TRANSPARENCY OF ALTERNATIVE ASSET CLASS DATA
- CALENDER BASED OR TOLERANCE BAND REBALANCING
- COUNTER PARTY / LIQUIDITY RISK
- CURRENCY RISK
- INFLATION RISK
- LIABILITY BENCHMARK RISK

12

GOVERNANCE AT THE PORTFOLIO LEVEL (SOLUTIONS)

INVESTMENT POLICY / ANALYSIS

- STRATEGIC ASSET ALLOCATION
- ACTIVE VERSUS PASSIVE
- NUMBER OF MANAGERS
- INVESTMENT STYLE
- RISK / RETURN EXPECTATIONS
- REBALANCING
- GLIDE PATH

13

GOVERNANCE AT THE PORTFOLIO LEVEL (SOLUTIONS)

PORTFOLIO ANALYSIS

- MANAGER DIVERSIFICATION
- SECTOR DIVERSIFICATION
- STOCK DIVERSIFICATION
- STYLE ANALYSIS
- RELATIVE RETURNS ANALYSIS
- INFORMATION RATIO
- TRACKING ERROR

14

GOVERNANCE AT THE PORTFOLIO LEVEL (SOLUTIONS)

- EXPLORE VARIOUS OPTIMIZATION METHODOLOGIES
- EXPLORE VARIOUS DEFINITIONS OF RISK
- ANNUAL SAA REVIEW VERSUS TRIENNIAL
- EXPLORE OPTIMAL MULTI-PERIOD REBALANCING PROGRAMS
- EXPLORE LIQUIDITY OVERLAY STRATEGIES
(VOLATILITY / UNCERTAINTY)

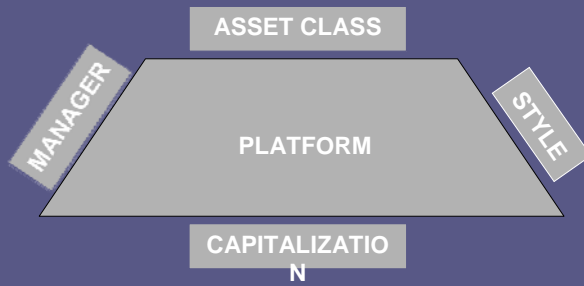
15

GOVERNANCE AT THE PORTFOLIO LEVEL (SOLUTIONS)

- EXPLORE LIABILITY BENCHMARK OR RELATIVE PORTFOLIO
OBJECTIVE
- EXPAND SET OF EXPERIENCED AND FORECASTED ASSUMPTIONS
- INCORPORATE ALTERNATIVE ASSET CLASSES AND INVESTMENT
STYLES
- INCORPORATE CURRENCY HEDGE / NON-HEDGE STRATEGY
- OVERLAY DOWNSIDE / CAPITAL PROTECTION CONSTRAINTS

16

GOVERNANCE AT THE PLATFORM LEVEL



LESS IS MORE...

...ONE MESSAGE MANY VOICES

17

GOVERNANCE AT THE PLATFORM LEVEL (TRENDS)

NUMBER OF MANAGERS

STUDIES INDICATE --

<u>SIZE OF FUND</u>	<u>AVERAGE # OF MANAGERS</u>
> \$500M	8
\$100M - \$500M	5
\$ 50M - \$100M	3
\$ 25M - \$50M	1

18

GOVERNANCE AT THE PLATFORM LEVEL (TRENDS)

➤ 2003 – MCGUIGAN (PERFORMANCE INDICATORS)

- EXAMINATION OF TOP QUARTILE FUNDS FOR 1983 – 1993

OVER THE PERIOD 1993 – 2003

- 28.57% REMAINED IN TOP QUARTILE
- 33.33% DROPPED TO SECOND QUARTILE
- 38.10% DROPPED TO BOTTOM HALF

➤ JOHN BOGLE (PERFORMANCE INDICATORS)

- LOW COST WAS A MORE RELIABLE INDICATOR OF PERFORMANCE

- EXAMINATION OF 5YR. PERFORMANCE FOR LARGE CAP FUNDS – LOWEST QUARTILE COSTS HAD BEST PERFORMANCE; HIGHEST QUARTILE COSTS HAD WORST PERFORMANCE.

19

GOVERNANCE AT THE PLATFORM LEVEL (CHALLENGES)

- DE-LEVERAGING
- DE-GLOBALIZATION
- RE-REGULATION
- SOVEREIGN DEBT (GOVERNMENT SPENDING / TAXES)
- INFLATION / DEFLATION

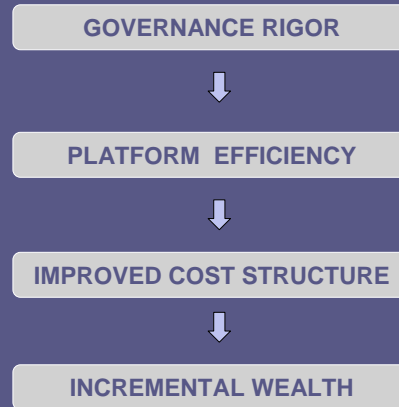
↓
ANEMIC ECONOMIC GROWTH

↓
SUBDUED MARKET RETURNS

↓
LOWER PORTFOLIO RETURNS

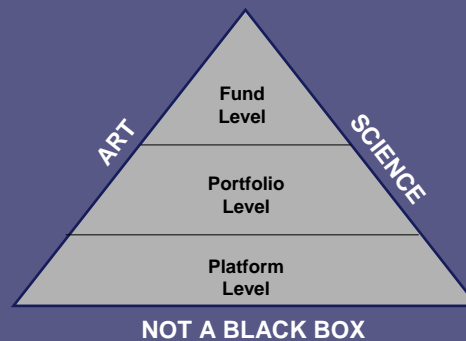
20

GOVERNANCE AT THE PLATFORM LEVEL (SOLUTIONS)



21

CONCLUSION



THE PAST IS HISTORY...
... ONLY THE FUTURE COUNTS

22

QUESTIONS