CFE West
Effective Strategies to Mitigate Risk Exposure

PREPARED BY: Brian Dowling, Senior VP, Finance and Information Systems, VGH & UBC Hospital Foundation
Brendan George, Partner, George & Bell Consulting Inc.

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400–601 West Broadway
Vancouver BC V5Z 4C2

Toll-free: (888) 800-1450
georgeandbell.com

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Agenda

- Definition of Risk
- What is Investment Risk?
- Sources of Investment Risk
- Managing Risk
- Conclusions on Investment Risk
- Non-Investment Risks
- Questions

Definition of Risk

- [1]Risk: Exposure to possibility of loss, injury or other adverse or unwelcome circumstance

- Financial risk: chance that return on investments is less than expected

Note: [1] Source: Oxford English Dictionary

Investment Risk

- How do you define risk?

1. Losing money: safe investments (T-bills) currently yield 0.6%
2. Ability to keep pace with inflation: currently 1.5%
3. Volatility of return (standard deviation): common in Finance
4. Ability to keep pace with spending policy: CPI+3.5%
5. Other: VAR, Sharpe, Downside Risk, Information Ratio?

Investment Risk

- Typical E&F Investment Objective:
  - Long-term / perpetual
  - CPI+3.5% p.a.
  - At lowest risk possible (chance of losing capital over 1 year)
  - Lower risk / more certainty comes with lower return

Risk/Return Relationship

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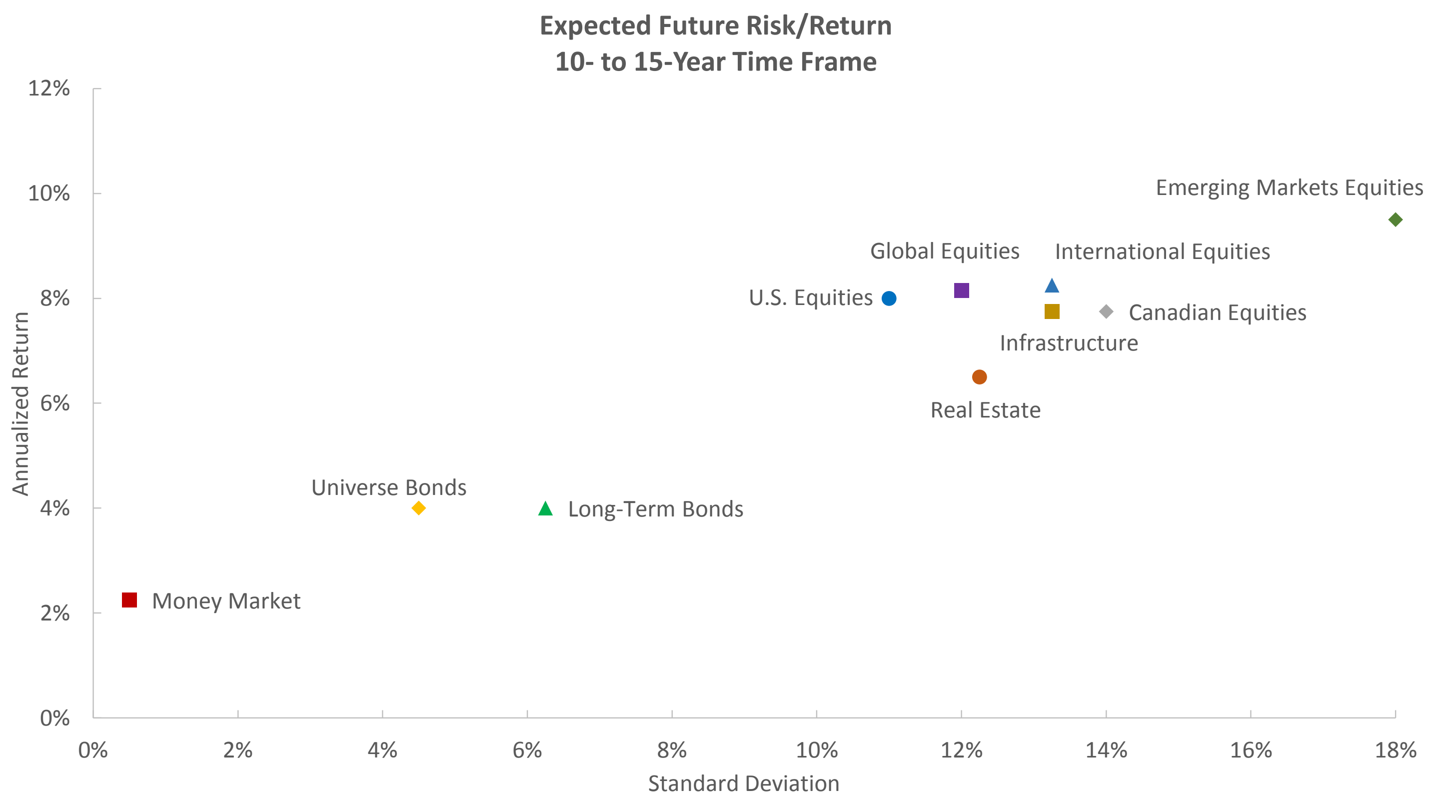
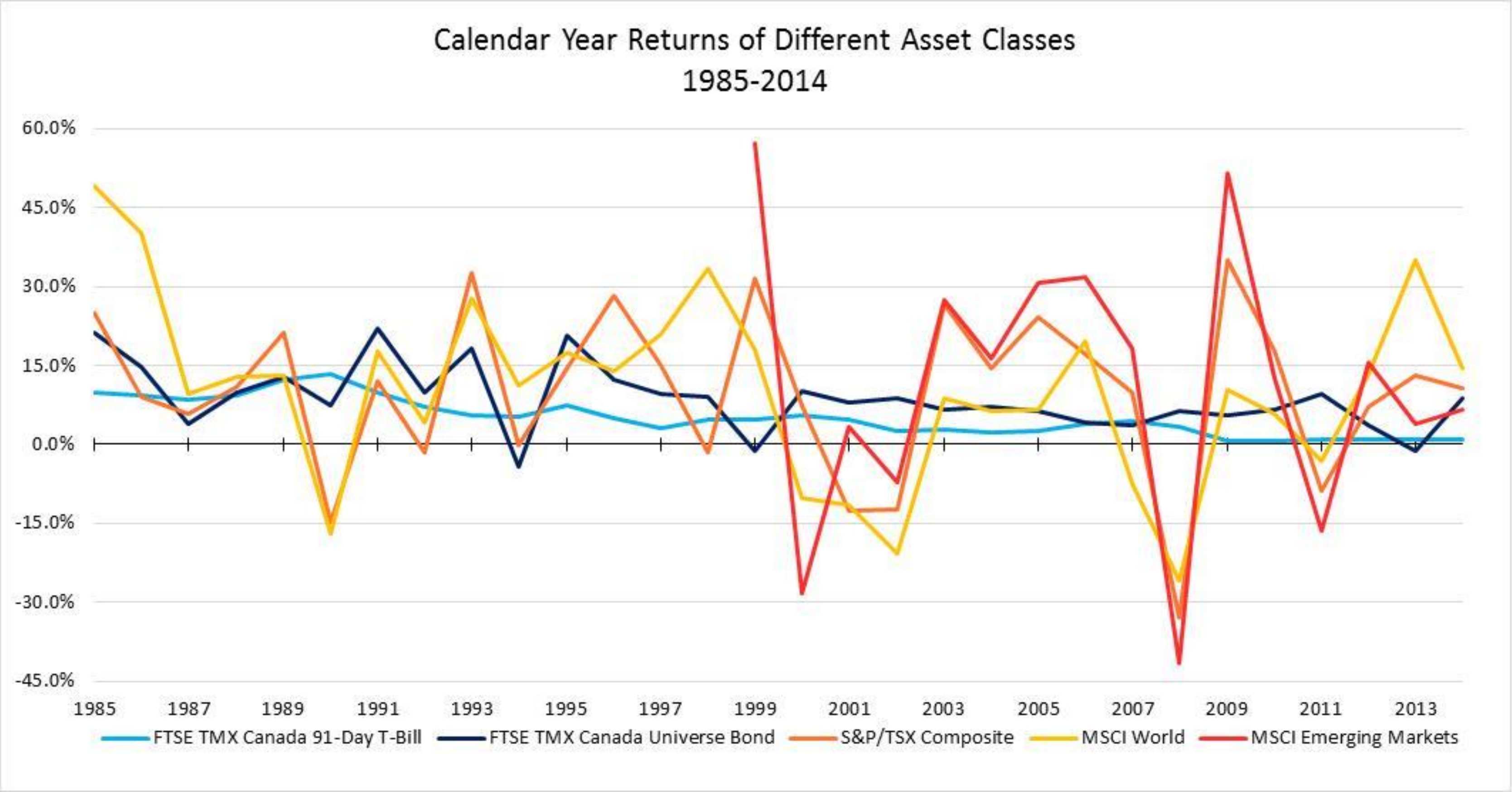
- Risk & return looking forward



Sources: J.P. Morgan Asset Management Long-Term Capital Market Return Assumptions (Canadian Edition), 2014 Edition
George & Bell Consulting Capital Market Expectations

History of Returns



Sources of Investment Risk

The following risks all contribute to overall Fund risk:

- Market risk: risk of capital loss due to market movements e.g. stock market
- Liquidity: ability to sell investments at short notice
- Credit risk: risk of default on fixed income investments (interest and/or principal)
- Interest rate risk: impact on capital values and investment returns due to changes in interest rates
- Inflation risk: risk that returns don't keep pace with inflation
- Legislative risk: changes in laws can impact capital values and returns
- Political risk: changes in government policies
- Currency risk: risk of loss of capital and income from foreign investments due to fluctuations in exchange rates
- Business risk: risk of loss of return due to specific business strategies and operations
- Fund manager skill: ability of fund manager to deliver on expected returns
- Derivatives: not a risk, but can be used to reduce or magnify risks

Managing Risk

- Total Fund Risk Management:

  1. Diversification:
     - By asset class
     - By securities

  2. Investment Policy restrictions control most other risk

Diversification by Asset Class

- Empirical studies show that asset allocation explains between 93-100% of the variation in a portfolio's returns[1].
- Correlation of returns is key e.g. Canadian Equities vs. Bonds: -0.1, Canadian Equities vs. Global Equities: +0.5
- Asset class diversification:

	Asset Mix		
Asset Class	**Minimum**	**Benchmark**	**Maximum**
Canadian Equities	15%	25%	35%
Global Equities	15%	25%	35%
Fixed Income	30%	40%	50%
Real estate	0%	10%	20%
Short-term Investments	0%	0%	20%

- Setting asset allocation: combination of modelling and judgement

[1] Gary P. Brinson, I. Randolph Hood, and Gilbert I. Beebower, *Determinants of Portfolio Performance*, The Financial Analysts Journal, July/August 1986
Roger G. Ibbotson and Paul D. Kaplan, *Does Asset Allocation Policy Explain 40%, 90% or 100% of Performance?*, The Financial Analysts Journal, January/February 2000

Risk Controls in Investment Policies

Risk:	Risk Control:
Market risk	Diversification: asset mix ranges and re-balancing
Business/industry risk	Diversification: e.g. max 10% in one stock/sector
Inflation risk	Asset allocation e.g. real assets
Liquidity risk	Limit on holdings in illiquid assets e.g. 20% of Fund
Interest rate risk	Target duration of bond portfolio
Credit risk	Limits on credit quality e.g. min BBB credit rating
Currency risk	Limits on foreign investments; currency hedging (not always risk reducing!)
Political/ legislative risk	Due diligence
Fund manager skill	Due diligence and monitoring
Derivatives	Limits on usage: hedging, not speculation

Conclusions on Investment Risk

- Unfortunately, almost all risky assets move with economy (varying by amount and timing)
- Extreme or prolonged poor economic news difficult to handle
- Volatility of returns can be managed – unless it reaches obscene levels
- Most Funds, though, can't handle
  - A 0% annualized real return over a 20 year period
  - Regardless of whether the return was achieved through violent swings or slow drips
- Little chance of predicting and avoiding this outcome if capital markets decide to go there

Other Risks

- The Non-Profit Attack Surface
- Financial Statements and the Stories They Tell
- Cost Per Dollar Raised and the Budget
- Sustainability

The Non-Profit Attack Surface

- In what ways might we be attacked?
- How can we mitigate the risk of attacks?

Financial Statements and The Stories They Tell

- Are the stories compelling?
- Do your audiences understand them?
- How do we tell financial stories in ways that reduce risk?

Cost Per Dollar Raised and the Budget

- Are your cost ratios at the level that they need to be?

- How do we reduce the perceptual risks in our cost per dollar raised statistic with external stakeholders such as our boards?

Sustainability

- What does your financial future look like?

- How can we change our destiny?

Some Last Words on Risk

- Risk management in all areas needs to be a management leadership focus.
- Board involvement and understanding of the organization's risk tolerance is key.
- Always be in the best defensible position.

Questions

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