



Joint Colloquium of the IACA, PBSS and IAAHS Sections of the International Actuarial Association

Westin Copley Place Hotel, Boston, U.S.A. – 4-7 May 2008

CPP Investment Board: How We Manage CPP Assets

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SVP, Portfolio Design and Risk Management



Agenda

Background

- Unique crown corporation
- Arm's length governance
- Still a “start-up”

How we manage CPP assets

- Investment objective
- Fund governance
- Risk-return-accountability framework
- How we manage investment risk
- Can CPPIB succeed as an active investor?
- Example private equity transaction
- Short-term performance
- Long-term success measure

Three strategic issues currently being addressed

Background

CPPIB is...

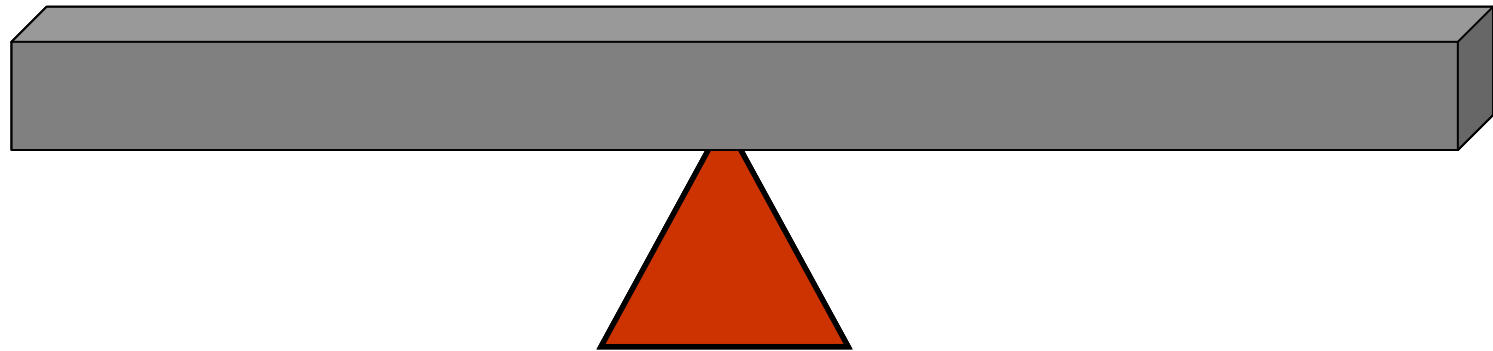
- Unique among Canadian crown corporations – joint responsibility of federal and provincial governments – created in 1997
- A single purpose organization – manage the assets of the CPP
- Intended to operate in the private-sector with some elements of public-sector accountability
- A \$120 billion start-up...starting with \$12.6 million in March 99

Our Governance Framework

Independence



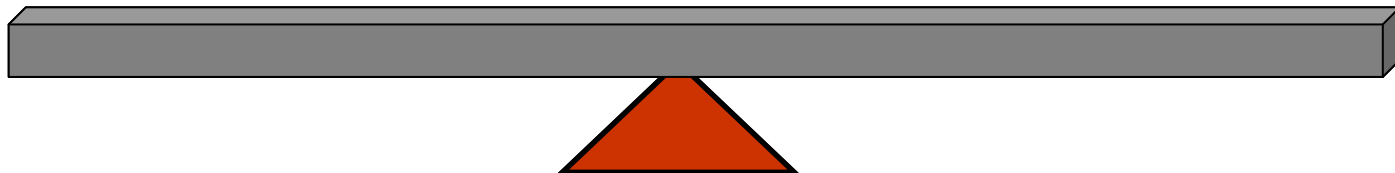
Accountability



Our Governance Framework (con't)

Independence

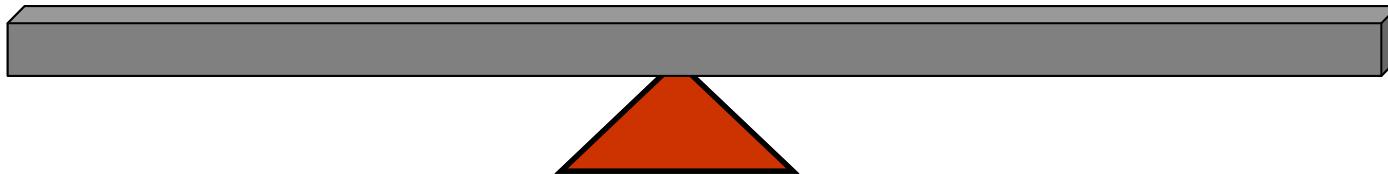
- CPP Investment Board Act requires federal and provincial governments to amend
- Board nominating committee chaired by private sector CEO
- Board selects CEO and sets management compensation
- Investment decisions made by investment professionals
- Assets segregated from government assets
- Board reports unwarranted influence on investing, hiring and procurement



Our Governance Framework (con't)

Accountability

- Quarterly Financial Statements
- Annual Report
- Public meetings
- Triennial review of CPP/CPPIB
- Special exam every 6 years
- Special audit provision
- Extensive disclosure



Leaders in Disclosure

- Public equity holdings
- Private equity holdings
- Fixed income portfolio
- Real estate holdings
- External partners
- Proxy-voting
- 300 pages of policies and procedures
- Speeches, news releases, reports
- Annual & quarterly reports

CPP INVESTMENT BOARD

- About Us
- Investments
- Results
- Responsible Investing
- News Room
- Publications

CPP Fund
\$119.4 Billion
At December 31, 2007

- [Financial Highlights](#)
- [Annual Report 2007](#)

Billions

Year	Equities	Inflation-Sensitive Assets	Fixed Income
2001	10	0	40
2002	15	0	45
2003	20	0	40
2004	35	0	35
2005	50	0	30
2006	65	10	25
2007 YTD	80	15	25
2008	85	15	20

■ Equities ■ Inflation-Sensitive Assets ■ Fixed Income

> CPP Investment Board

The CPP Investment Board is managed independently of the Canada Pension Plan by experienced investment professionals to help sustain the future pensions of 17 million Canadians. Our role is to invest the CPP fund to maximize returns without undue risk of loss.

The Canada Pension Plan administers benefits such as paying pensions. For pension benefit information, visit www.hrsdc.gc.ca or call 1-800-277-9914

Independence. Accountability. Performance.

Investment Profile

- [Total Portfolio Review](#)
- [Equities](#)
- [Inflation Sensitive Assets](#)
- [Our Investment Partners](#)

> FAQs

At \$116.6 billion in assets, is the CPP Investment Board now the largest single-purpose pension fund in Canada?

For the answer to this and other questions click here →

We Are Not A Sovereign Fund

Sovereign Funds

- Not arm's length from government
- May have political objectives in how they invest
- Lack of transparency



CPP Investment Board

- Investment-only, fiduciary driven mandate
- CPP assets are segregated from government revenues
- Investments managed at arm's length from governments.
- Extensive transparency and regular disclosure

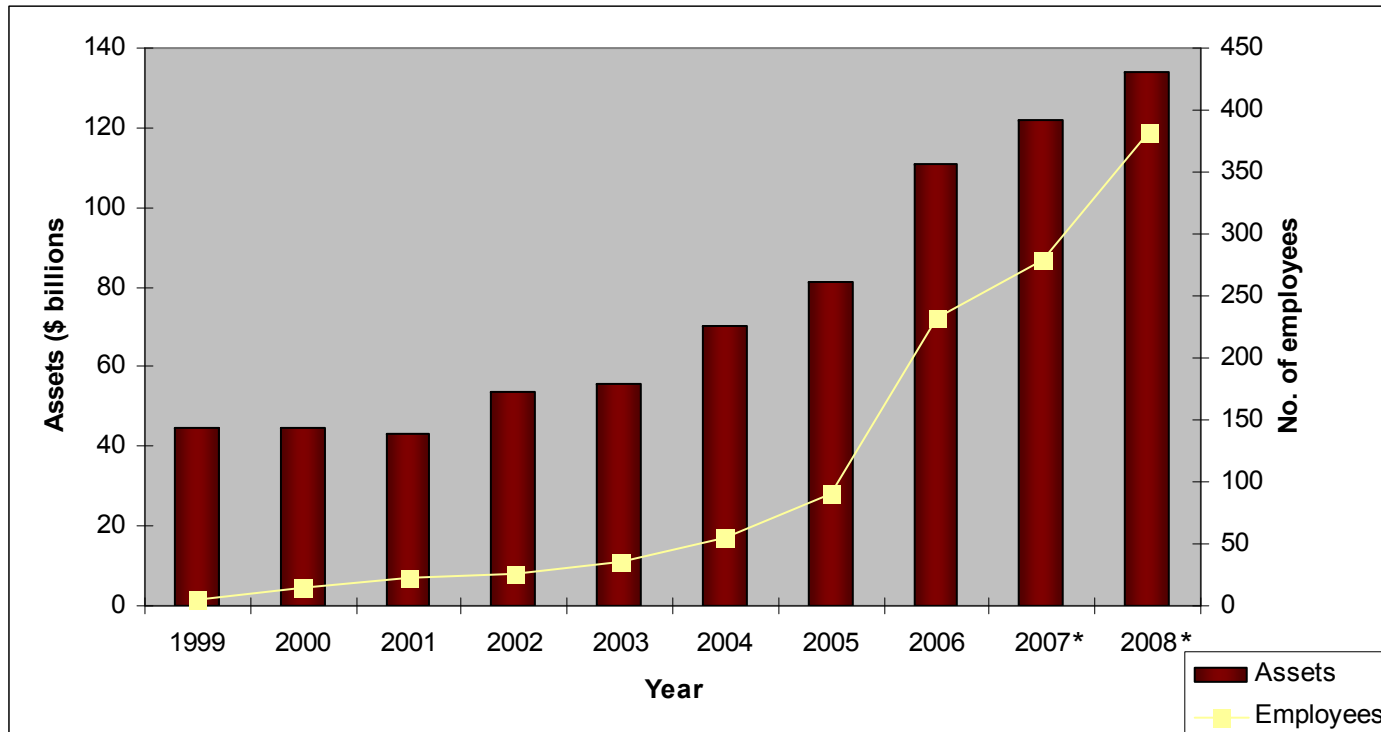
- **OECD does not consider CPPIB to be a sovereign wealth fund**

February 08



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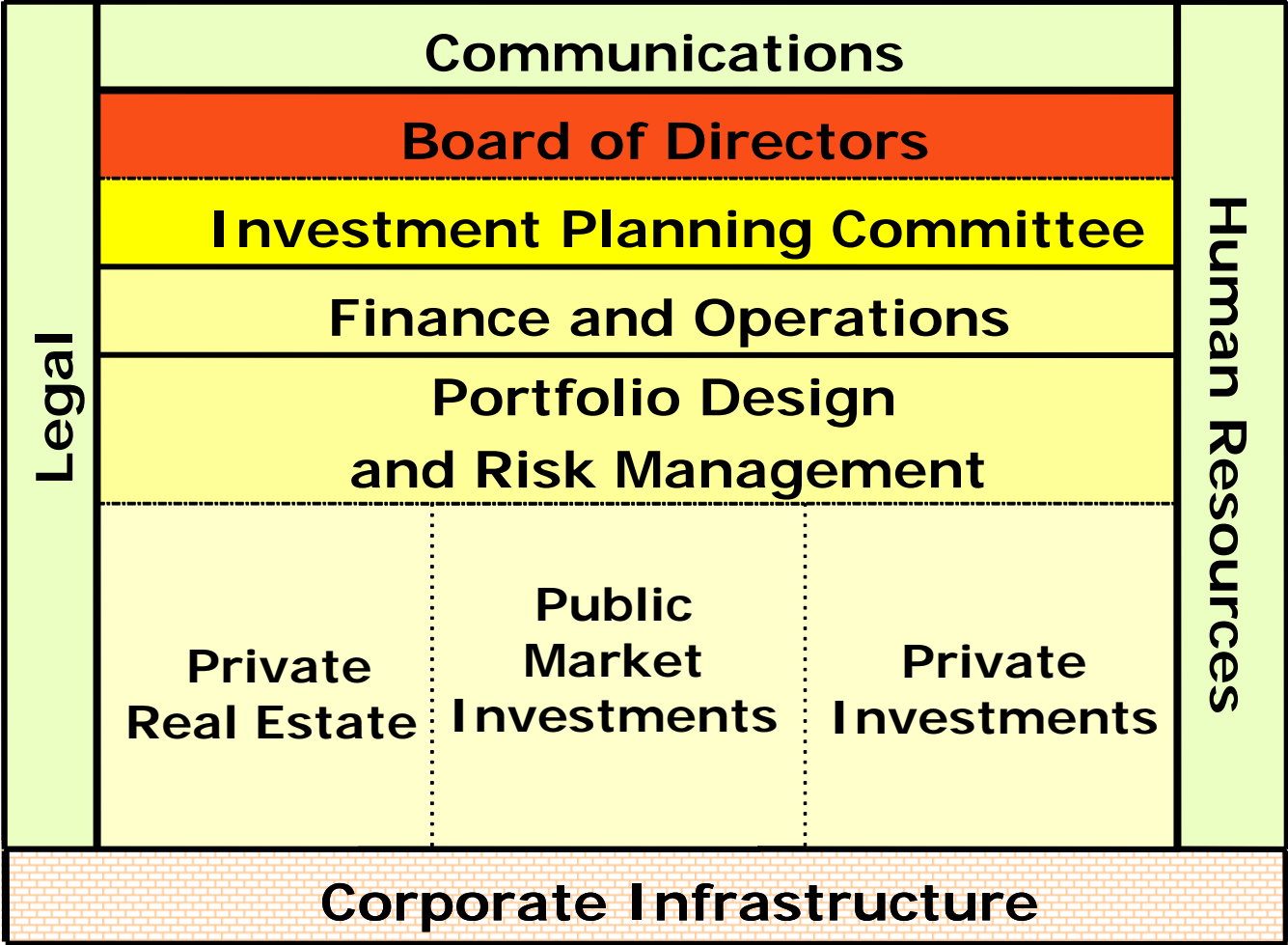
Large Start-up, Still Developing



* For years 2007 and 2008 are estimates only

5-year Business Plan
(2006 – 2010)

Our Structure



How We Manage CPP Assets

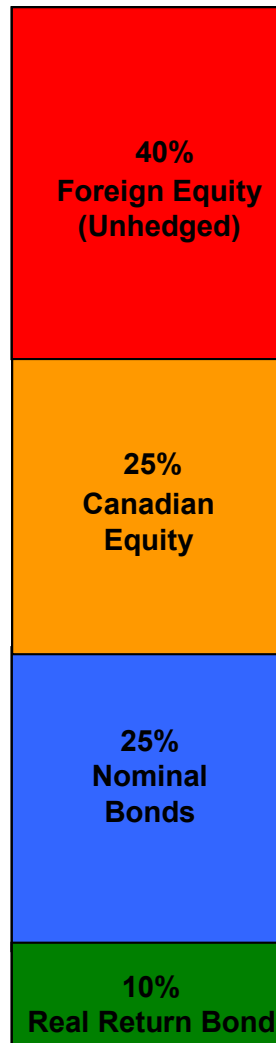
Our Mandate

1. Assist CPP to meet its obligations to contributors and beneficiaries
2. Manage assets in best interest of contributors and beneficiaries
3. Maximize returns without undue risk of loss

Our Mandate Translated into Investment Terms: “Minimize Risk of Plan Restructuring”

- 1. Help lower future contribution rates by diversifying into higher returning assets*
 - Steward-assigned (1997)
 - Stewards do not want sustainable rate to exceed 9.9%
 - CPPIB could “harvest” market returns by investing in low cost index funds
 - Reasonable chance of earning 4.2% real over long-term
- 2. Improve performance with beta diversification and active management*
 - Self-assigned (2000)
 - Board-approved management initiative; accepted by stewards
 - Improved performance would further lower future contribution rates
 - Each 50 bps lowers sustainable rate by 25 bps
 - Could under-perform low-cost index funds and increase sustainable rate!
 - *Board required management to design, adopt and implement a risk-return accountability for measuring management success*

CPP Reference Portfolio: A Low Cost, Low Complexity, Fully Indexed Strategic Alternative



Low cost, low complexity diversification

Embodies return requirement and systematic risk exposure envisioned by federal-provincial stewards

Partially matches CPP net liabilities

Easy to understand by stakeholders

A viable strategic option

Easy to evaluate management decision-making

Board Adopts Risk-based Fund Governance...

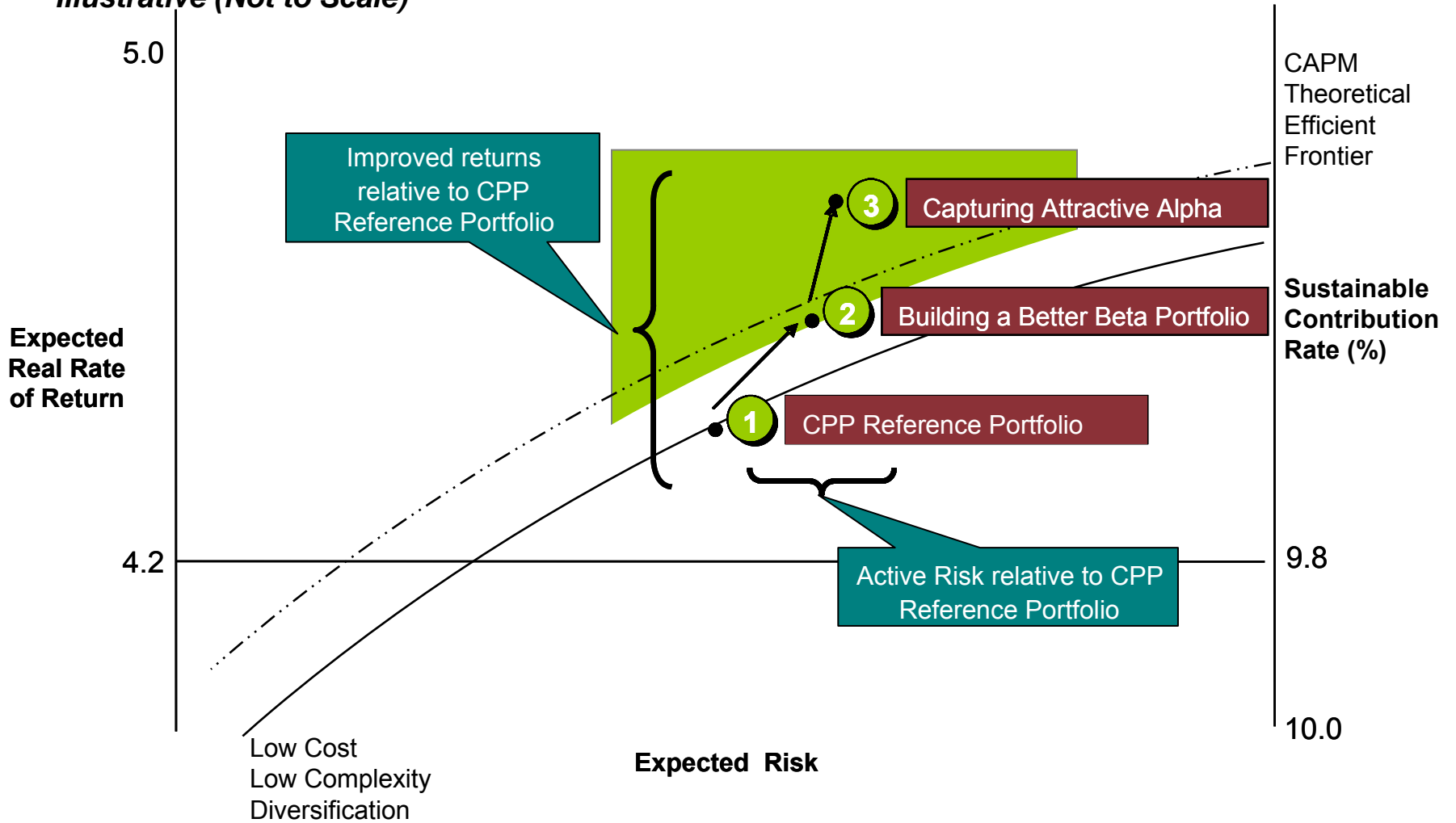
1. Board approves Reference Portfolio and active management
 - reference portfolio expected to earn at least 4.2% real using reasonable capital market assumptions
 - 50 bps additional return lowers sustainable rate by 25 bps

2. Management:
 - delegated “better beta” and “alpha” decisions
 - subject to Board-specified active risk limit
 - sets annual active risk budget and return target
 - expected to outperform on a risk-adjusted basis
 - compensated relative to Board-approved return targets

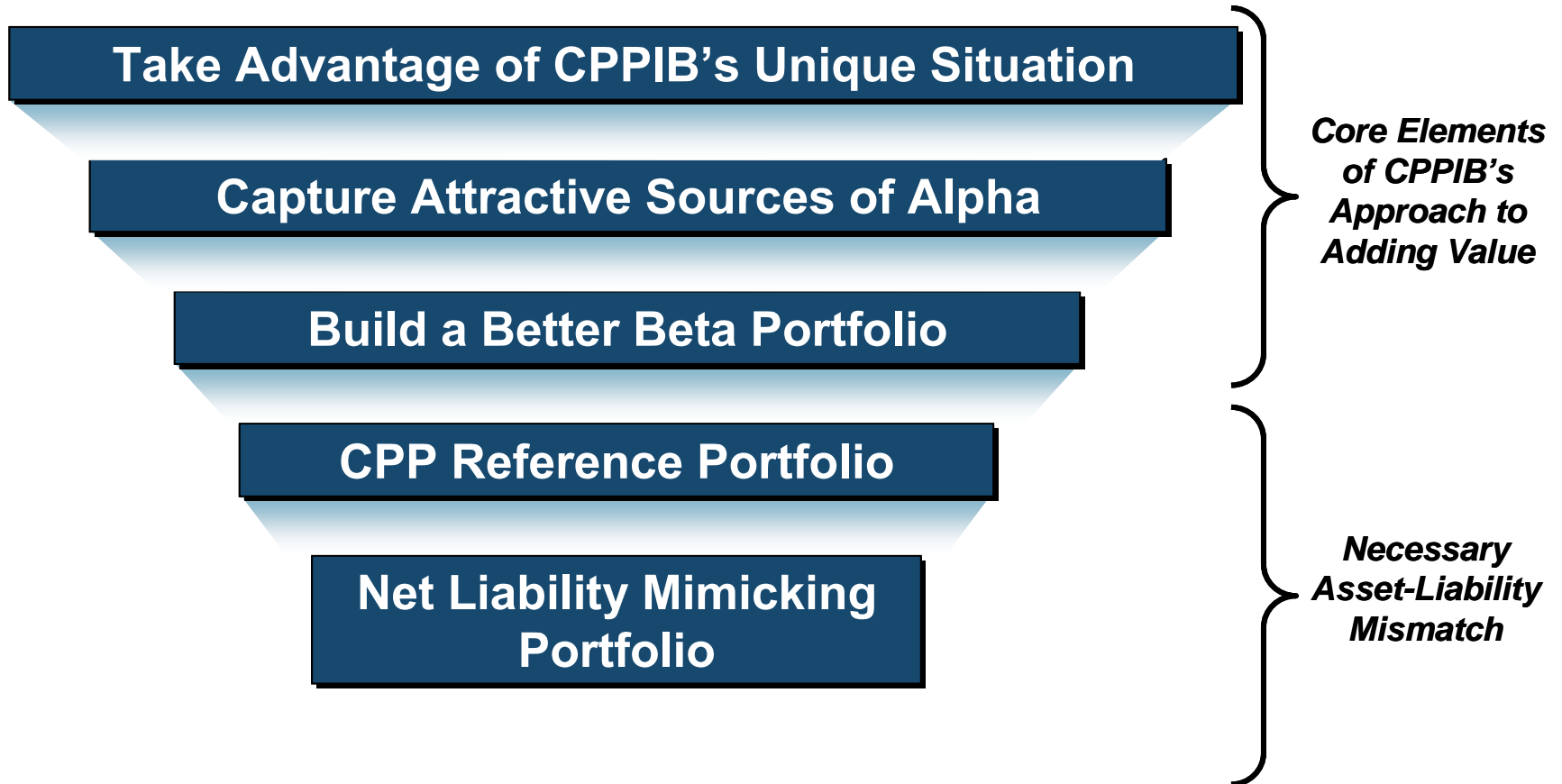
3. Board retains final approval over:
 - manager selection (legislative requirement)
 - high reputation transactions
 - large private market transactions

...and a Corresponding Risk-Return-Accountability Framework

Illustrative (Not to Scale)



Sources of Enhanced Performance



How We Manage Investment Risk



Can CPPIB Succeed as an Active Investor?

- We believe we have a number of comparative advantages that will help us succeed at active investing

Structural

- ▶ Very long-term investment horizon
- ▶ Certainty of assets
- ▶ Size of our portfolio

Developed

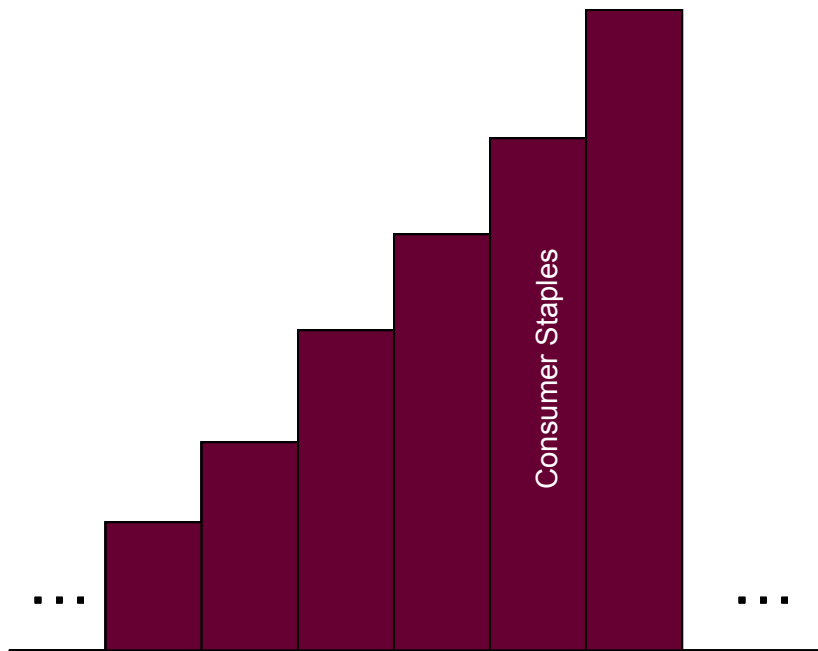
- ▶ Total Portfolio Approach
- ▶ Ability to partner with world-class firms
- ▶ Culture

- Structural advantages are those that arise from the nature of our role and mandate
- Developed advantages are choices we make about how to operate as an investment organization

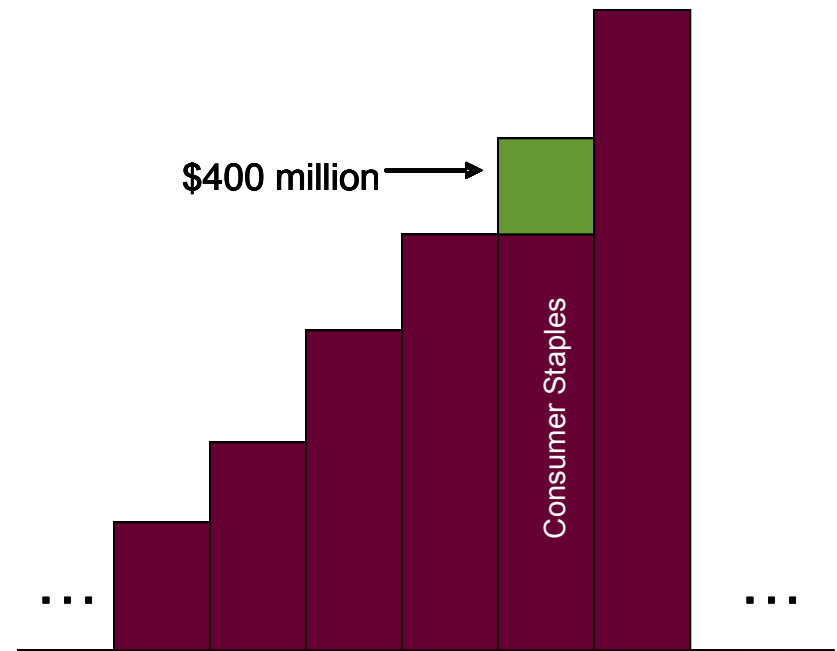
Example PE Transaction: \$400 Million Buy-out

Invest \$400 million in buy-out of US consumer staples company

- Sell \$400 million across US consumer staples sector
- Removes sector exposure
- Captures private equity alpha decision
- Manage index fund to adjusted weights
- 1.3 PE beta introduces residual risk



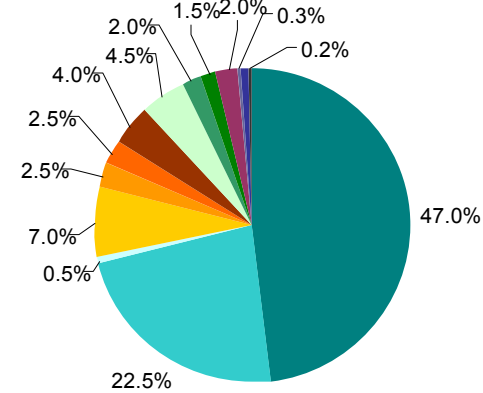
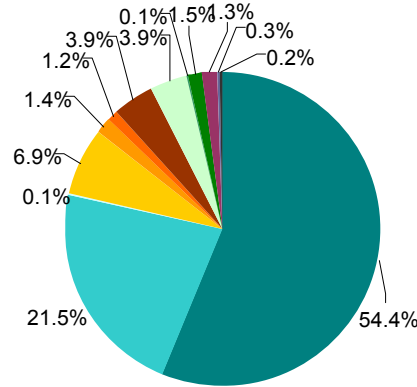
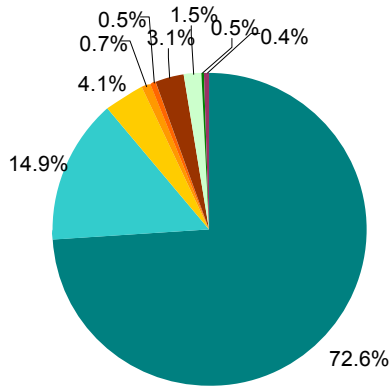
US Index Exposure



US Index and Active Exposures

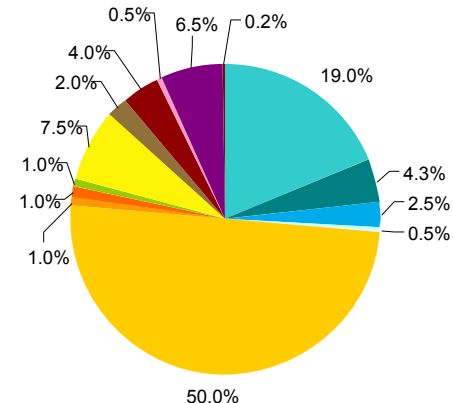
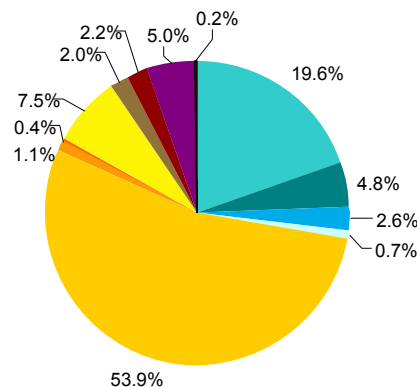
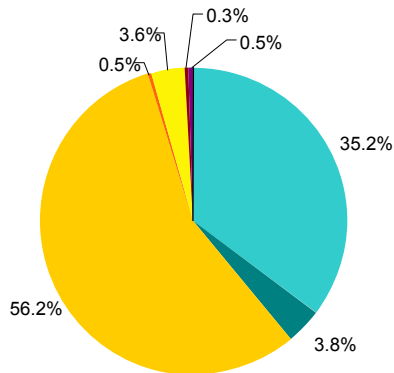
Increased Diversification

Geographic



- Canada
- US
- Mexico
- UK
- France
- Germany
- Other Europe
- Japan
- China
- Other Asia
- India
- Australia
- Chile
- Brazil
- Other Latin America

Investment Types



- CPP Bonds (Non-marketable)
- Canadian Government Bonds
- Canadian Real Return Bonds
- Foreign Inflation-Linked Bonds
- Public Equities
- Absolute Return Pooled Funds
- REITs
- Corporate Bonds
- Funds & Secondaries
- Principal Investing
- Infrastructure
- Private Debt
- Real Estate
- IPC Funds

FISCAL 2005

\$81.3 billion

YTD (Q3) FISCAL 2008

\$119.5 billion

FISCAL 2009 (ESTIMATE*)

\$129.7 billion



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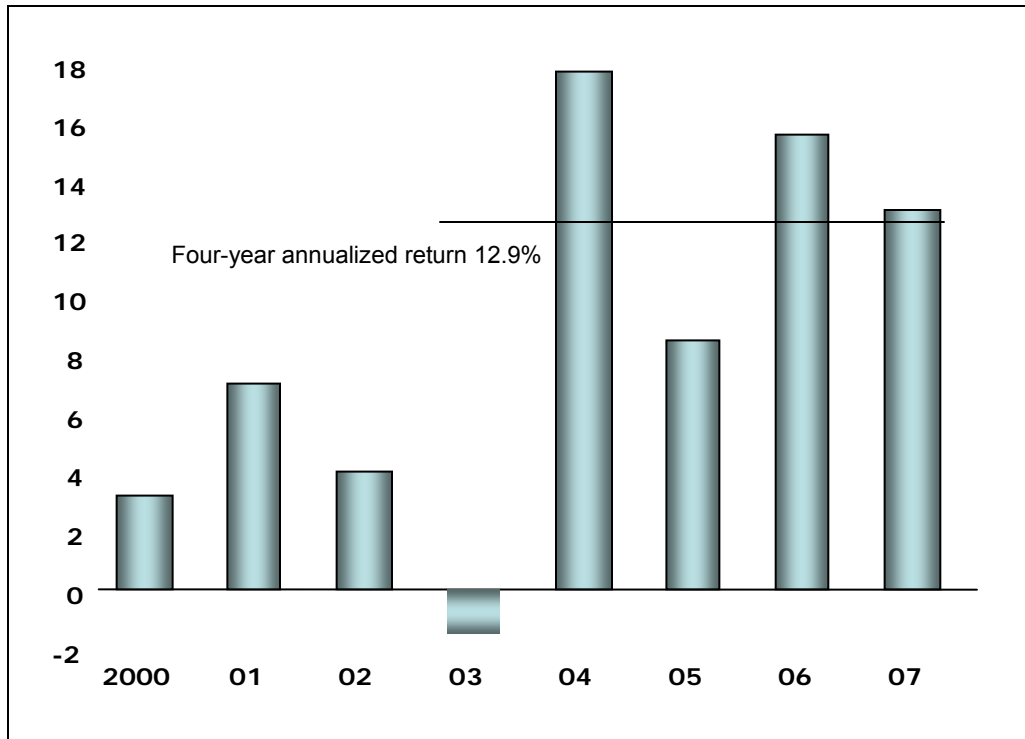
Westin Copley Place Hotel, Boston, U.S.A. – 4-7 May 2008

Short-term Performance

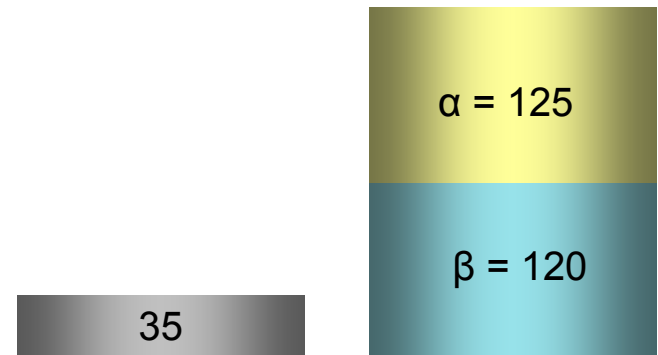
Total Fund

RATE OF RETURN (%)

For the year ended March 31



Value Added
For the year ended March 2007
Target vs. Actual
(basis points)



Long-term Success Measure

Systematic Returns at Level Expected by Stewards

		Yes	No
CPPIB Adds Value to Systematic Returns	Yes	Systematic Returns ✓ Value Added ✓	Systematic Returns ✗ Value Added ✓
	No	Systematic Returns ✓ Value Added ✗	Systematic Returns ✗ Value Added ✗

Three Strategic Issues Currently Being Addressed

Three Strategic Issues Currently Being Addressed

1. Distinguishing CPPIB from sovereign wealth funds
2. Deciding next generation Reference Portfolio
3. Rethinking unhedged foreign exposure in Reference Portfolio

Appendix

A Great Reference Soon Available...

Fixing the Future:
How Canada's Usually Fractious Governments Worked Together
to Rescue the Canada Pension Plan

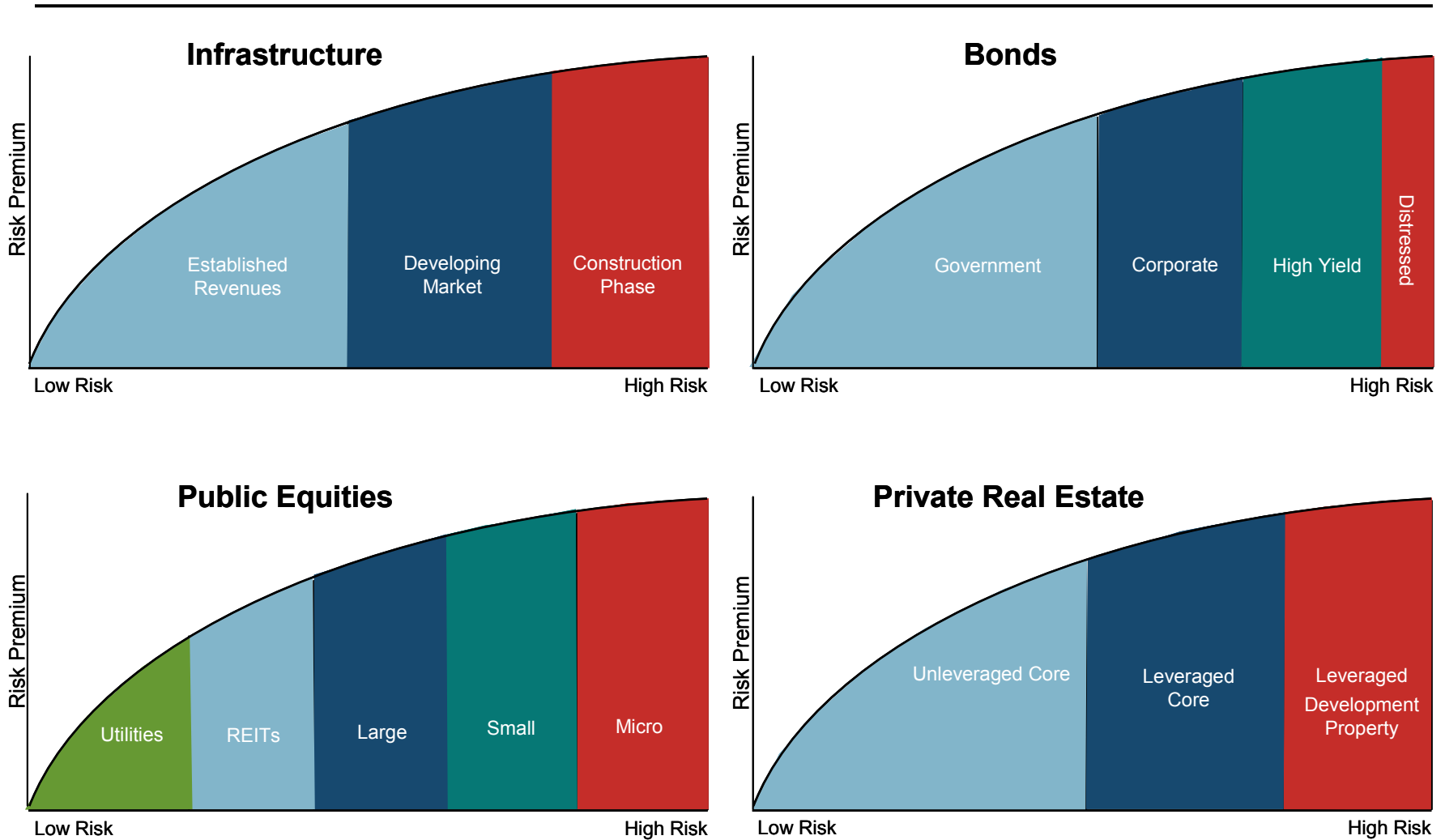
Bruce Little

University of Toronto Press
(November 2008)

Manage Risk Exposures, Not Asset Class Labels: Total Portfolio Approach

- Manage risk and expected returns *directly*, wherever possible
 - Most Investors manage labeled asset class exposures
 - Often misleading or unreliable risk-return indicators
- Asset classes that share similar risk-return characteristics:
 - Should be managed in a manner that takes the other into account (eg. public and private equity)
 - Will not necessarily be diversified because diversification of non-systematic risk will take place at the total portfolio level
- Investment risks that span the total portfolio (eg. currency exposure, beta exposure, liquidity) should be managed at the total portfolio level
- Board controls active risk by establishing a one-year VaR limit relative to a "Reference Portfolio" that management cannot exceed
- Active risk encompasses both "beta" and "alpha" return sources
- Management budgets and manages active risks within Board-specified limit
- Best viewed as risk allocation, with higher expected risk-adjusted returns being allocated the most risk capital, capacity permitting

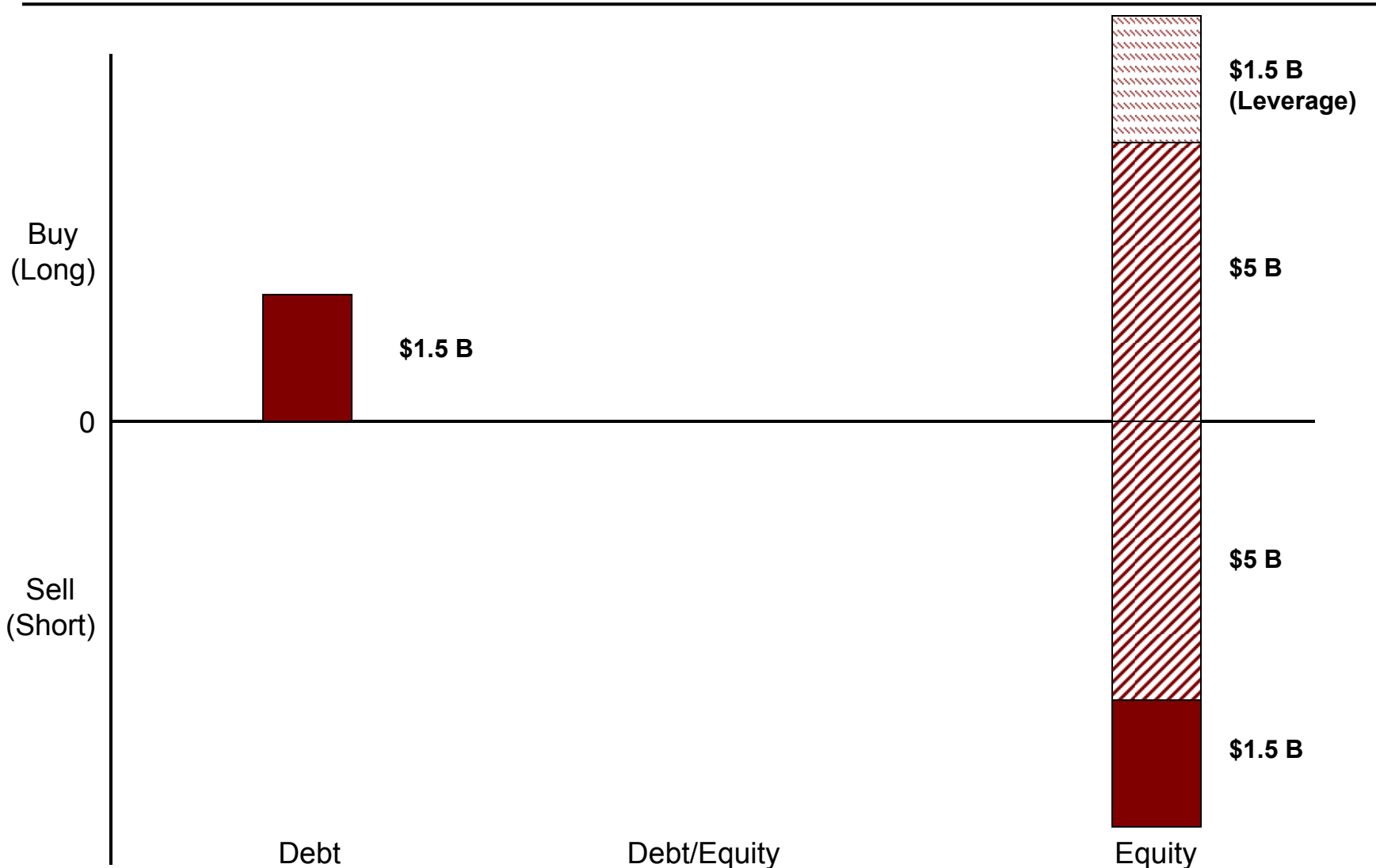
We Manage Risks, Not Asset Class Labels



Reference Portfolio: Starting Exposures to PE



IPC Can Offset Increased 0.02 Beta Exposure



End