THE TOTAL PORTFOLIO APPROACH

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Gameplan

- Conceptual Overview of TPA
  - How does it work mechanically?
  - How does it differ from traditional Strategic Asset Allocation (SAA)?
- Practical Issues with TPA
  - Initial Implementation and Adjustment
  - Organizational Challenges

Key differences between TPA and the standard approach

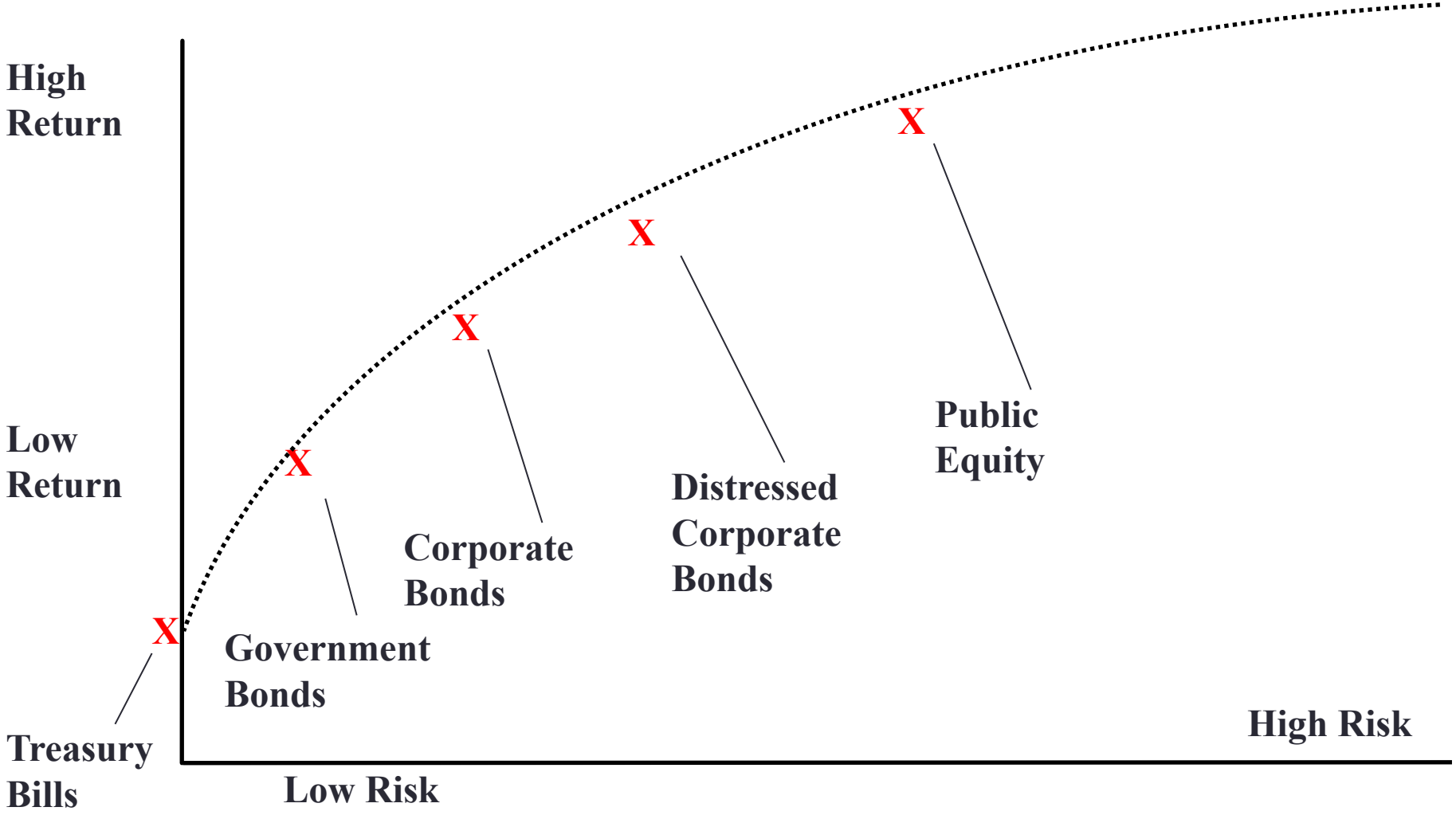
Strategic Asset Allocation

- Performance measured by benchmarks
- Success is relative value added
- Asset Classes define investment opportunities
- Diversification achieved by adjusting portfolio weights to asset classes
- Asset allocation determined by mandate or by board-centric process
- Internal teams work in silos

Total Portfolio Approach

- Performance measured by Fund Goals
- Success is Total Return
- Factor Exposure and contribution to total return
- Diversification achieved by adjusting exposure to risk factors
- Asset allocate on determined by risk analysis
- Internal teams collaborate to achieve fund-wide objectives

Total Portfolio Approach: A CAPM Framework



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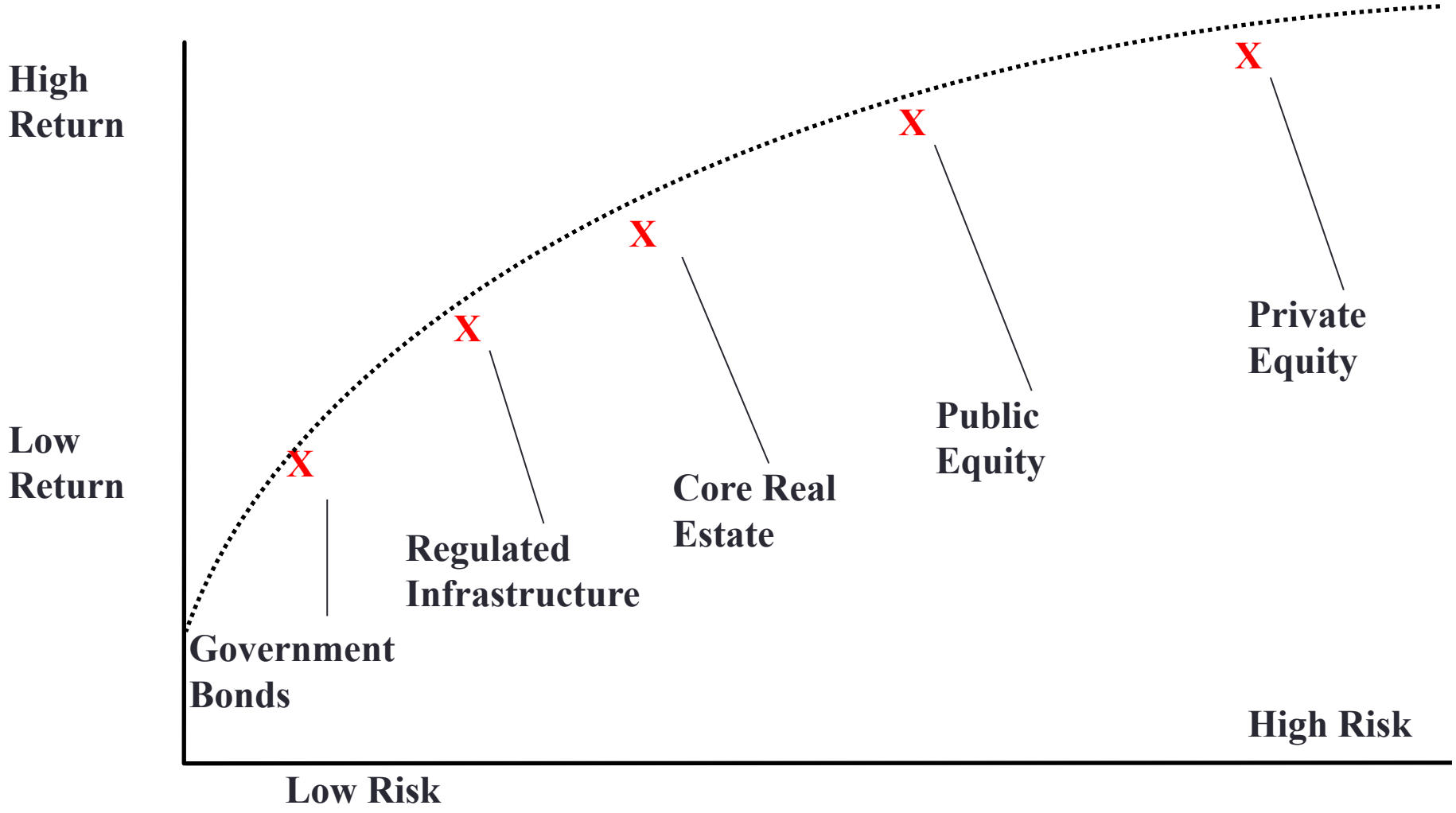

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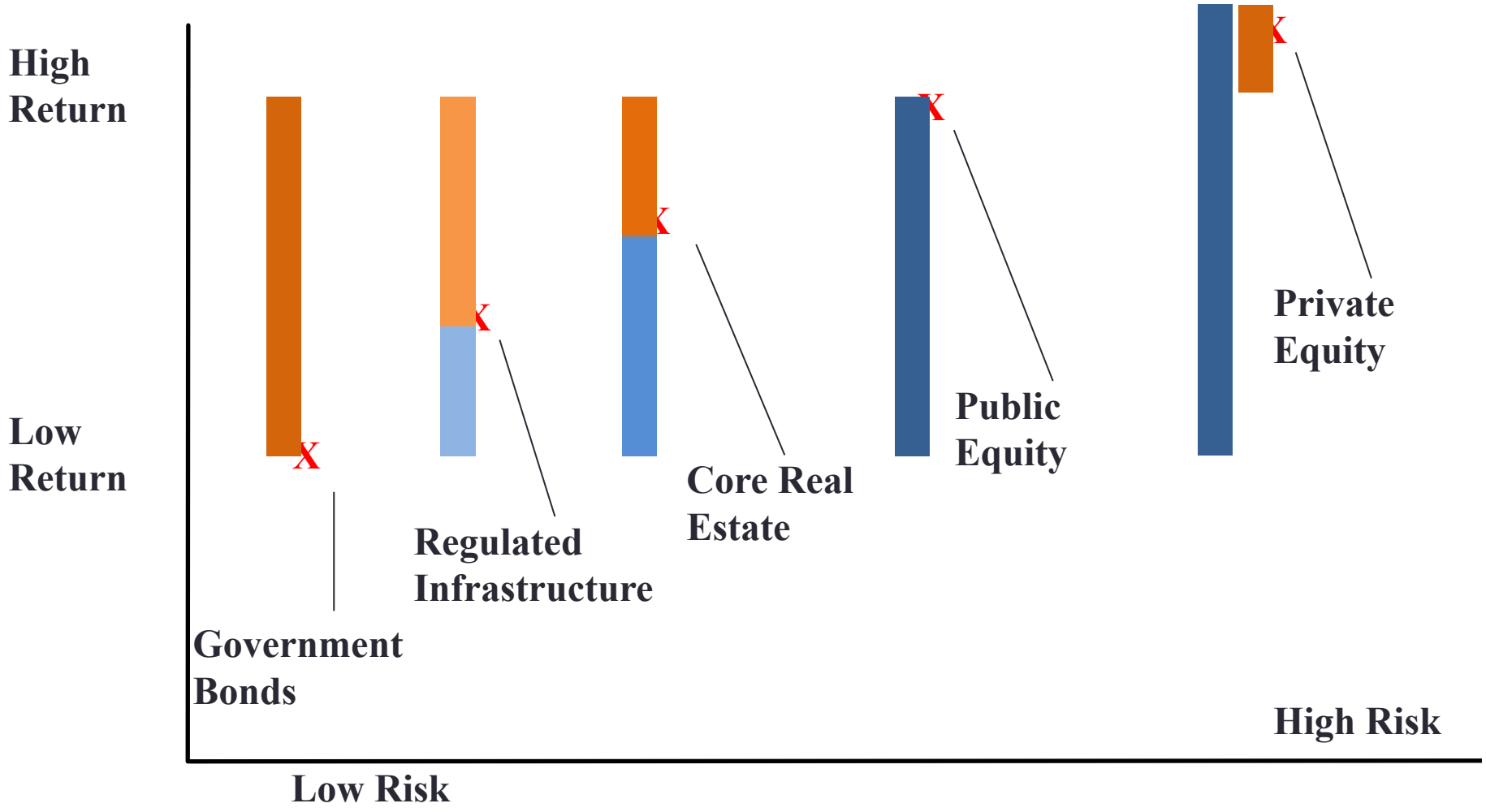
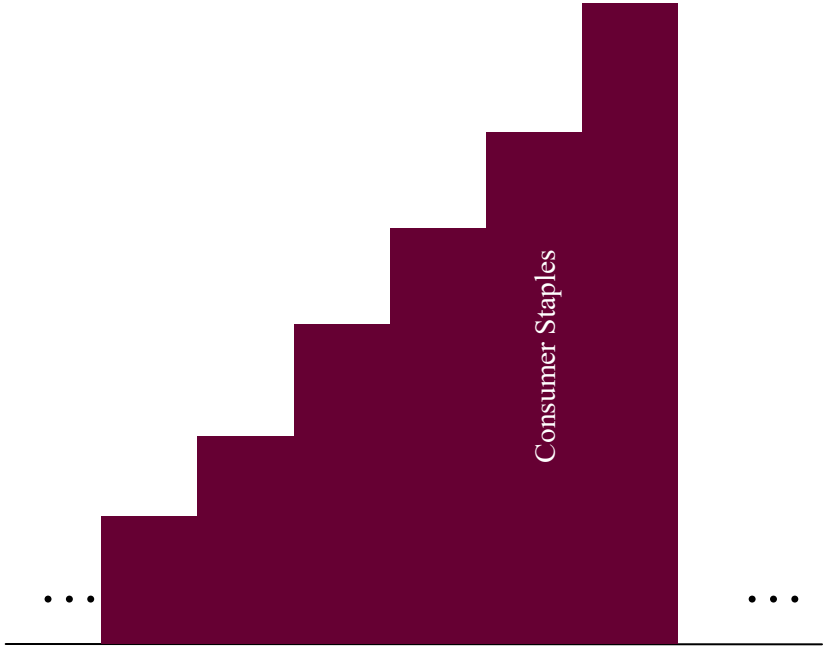


Total Portfolio Approach

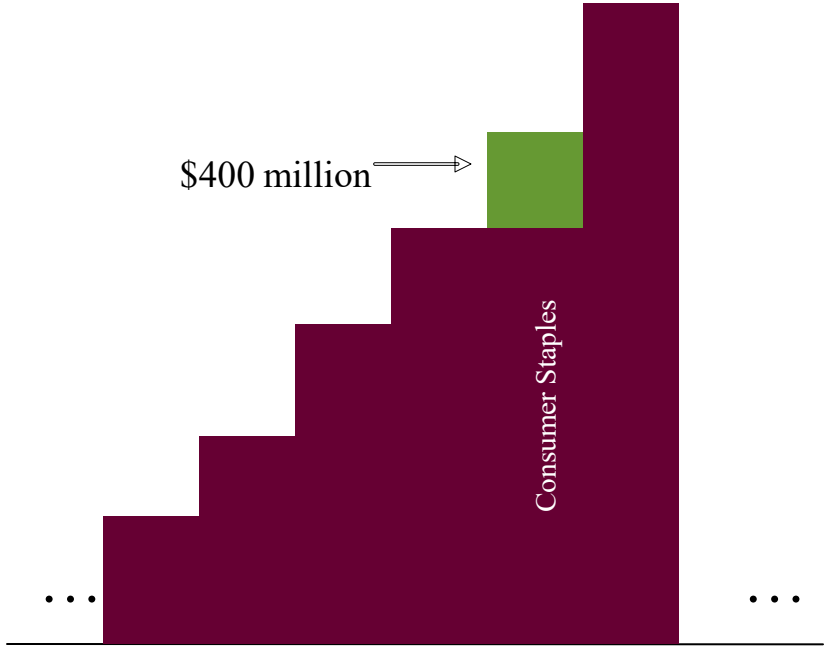
$400 Million Buy-out

Invest $400 million in
Buy-out of US company
of consumer staples sector



US Index Exposure

- Sell $400 million across US consumer staples sector
- Removes sector exposure
- Suppose PE beta is 1.3: introduces residual risk
- Offset 0.3 beta risk by selling additional equities to buy bonds
- Captures private equity alpha decision
- Manage index fund to adjusted weights



US Index and Active Exposures

Broadening the TPA

CAPM Framework

- Any asset can be described in terms of a combination between the market factor and the risk-free security
- Hedging overexposure relative to the market factor involves shorting the market

Multi-factor World

- Assets are described in terms of their correlation with a broader set of factors
- More complicated hedging considerations arise

NC Teachers and State Employees Retirement System, 2023

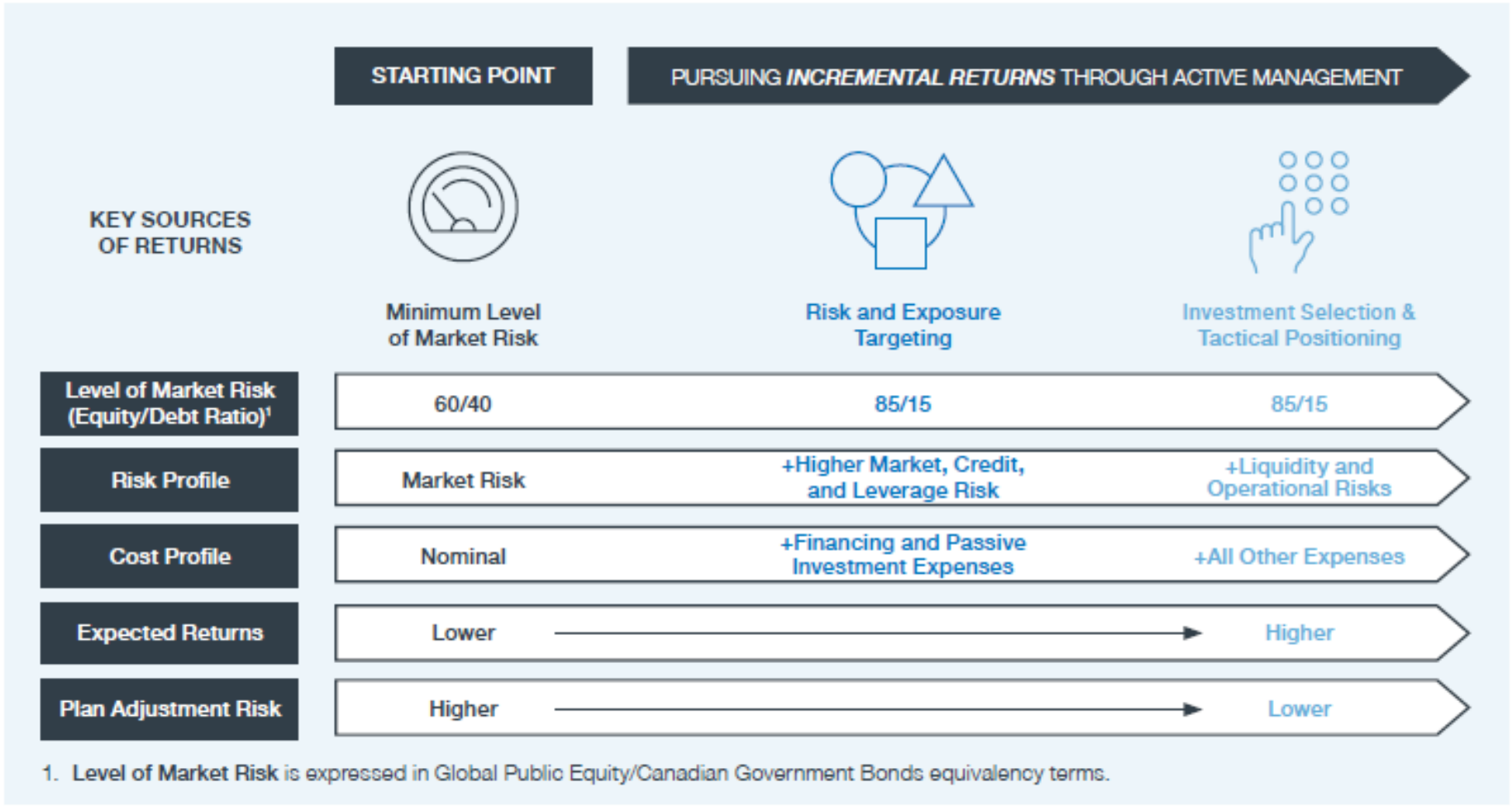
- What happens when the public markets drop?
- Pension is probably overallocated to private equity.
- SAA: sell private equity to rebalance
- TPA: sell liquid assets with high correlation to overexposed factors

Public equity: 39.6%
Investment-grade fixed income and cash: 27.6%
Pension cash: 8.2%
Opportunistic fixed income: 6.1%
Core real estate: 5.1%
Private equity: 5.0%
Inflation-sensitive assets: 4.6%
Multistrategy portfolio: 2.1%
Non-core real estate: 1.7%

SAA vs TPA

Performance assessed vs.	Benchmarks	Fund goals
Success measured by:	Relative value added	Total fund return
Opportunities for investment defined by:	Asset classes	Contribution to total portfolio outcome
Diversification principally via:	Asset classes	Risk factors
Asset allocation determined by a:	Board-centric process	CIO-centric process
Portfolio implemented by:	Multiple teams competing for capital	One team collaborating together

Source: Thinking Ahead Institute



1. **Level of Market Risk** is expressed in Global Public Equity/Canadian Government Bonds equivalency terms.

Our Total Portfolio Investment Framework