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Smart Psychology, Stronger Returns:
Behavioural Finance for Municipal Treasurers

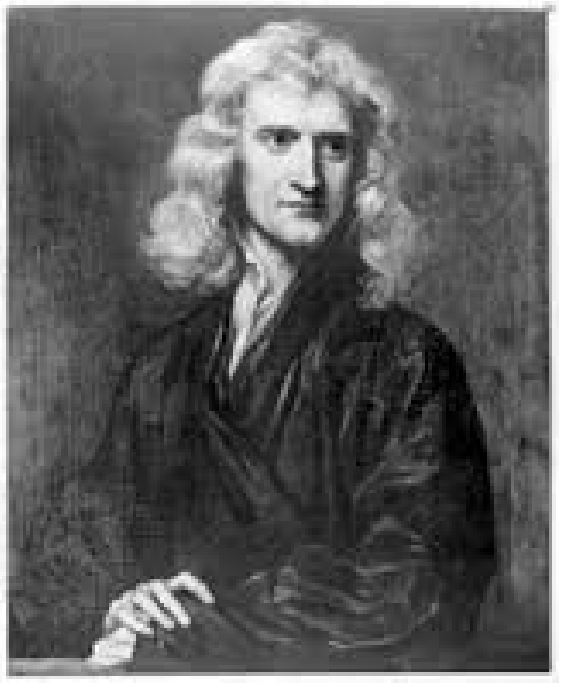


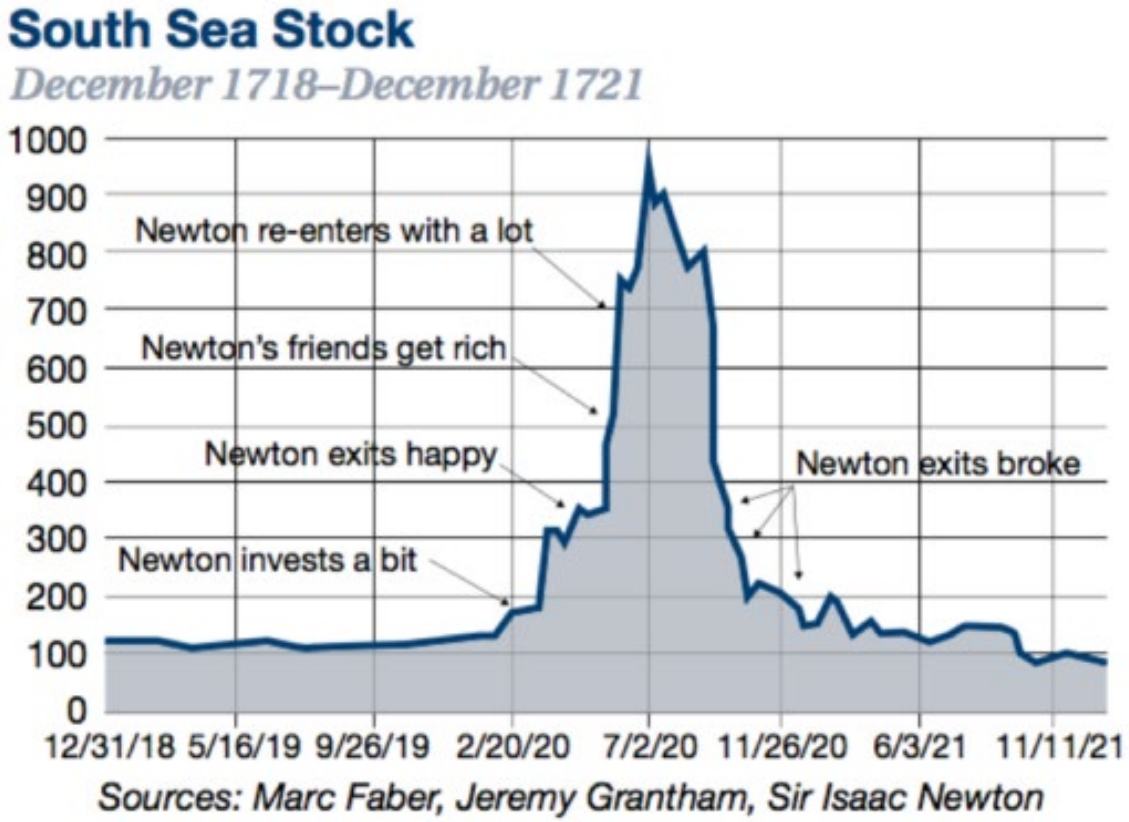
Prepared by:
Hobson Chahal Poulias Advisory Group

AMCTO Zone 5 Fall Meeting
Thursday, November 5, 2026

Historical Case Study

Sir Isaac Newton and the South Sea Company





"I can calculate the movement of stars, but not the madness of men"

Session Structure

Workshop Agenda



- Examine how psychological influences and biases affect financial decision making.
- Show how behavioural influences can cause portfolios to misalign from meeting long-term objectives
- Discuss IPS guardrails, pre-commitments, and council communication strategies.
- Peer benchmarking, policy reviews, and interactive question period.

Key Municipal Investment Objectives

The Golden Rule: S.L.Y.

Municipal investing isn't about "beating the market"; it's about the **SLY** principle:

1) **Safety**
   - Preservation of capital is the #1 priority. We cannot lose public funds!

2) **Liquidity**
   - Ensuring cash is available to pay for capital projects, payroll, and emergencies
   - Preventing "Service Delivery Failure"

3) **Yield**
   - Earning a competitive return only after safety and liquidity are met



"I'm not so much interested in the return ***on*** my money as the return ***of*** my money." – Benjamin Franklin

Executive Overview

The Fiduciary Dilemma in Public Treasury

Fiduciary Mandate

- Municipal finance officers prioritize capital preservation and liquidity over yield, leading to extreme risk sensitivity under public scrutiny.

Human Psychology

- Subconscious mental shortcuts and fear of regret systematically distort rational reserve fund asset allocation decisions.

Hidden Opportunity Cost

- Excessive cash drag and rigid policy inertia erode long-term purchasing power across municipal reserve portfolios.

"A nickel ain't worth a dime anymore" – Yogi Berra

Theoretical Foundations

Traditional Finance vs. Behavioural Reality

Classical Financial Assumptions

Rational Actors:
- Decision makers evaluate risk and return objectively.

Optimal Yield:
- Reserves allocated precisely along the efficient frontier.

Complete Information:
- Market movements incorporated instantly without emotion.

Behavioural Municipal Reality

Loss Avoidance:
- Asymmetric fear of public scrutiny over paper losses.

Heuristic Shortcuts:
- Relying on historical rules of thumb over dynamic analysis.

Institutional Friction:
- Decision-making slowed by council oversight dynamics.

Primary Behavioural Driver

Loss Aversion & The “Cash Drag” Trap



Asymmetric Career Risk

- Treasurers face heavy backlash for short-term mark-to-market drops but zero praise for modest yield gains.

Systematic Over-Liquidity

- Holding multi-year strategic reserves in overnight demand accounts to avoid principal fluctuation.

Institutional Biases

Status Quo Bias & Peer Herding



Status Quo Bias

- Unchanged legacy investment policy statement for decades.
- “We’ve always done it this way”



Peer Herding

- Mirroring neighboring municipal portfolios regardless of liability fit
- Safety in numbers



Availability Bias

- Tendency to use information that comes to mind quickly and easily when making decisions about the future
- Ex. Middle East headlines

Market Timing Hazards

Rate Anchoring & Recency Bias

The Anchoring Trap

- Fixating on recent peak interest rate levels prevents lock-in of long-term duration when rate cycles pivot downward.

"We will wait until rates hit peak again before locking in our 10-year reserves."

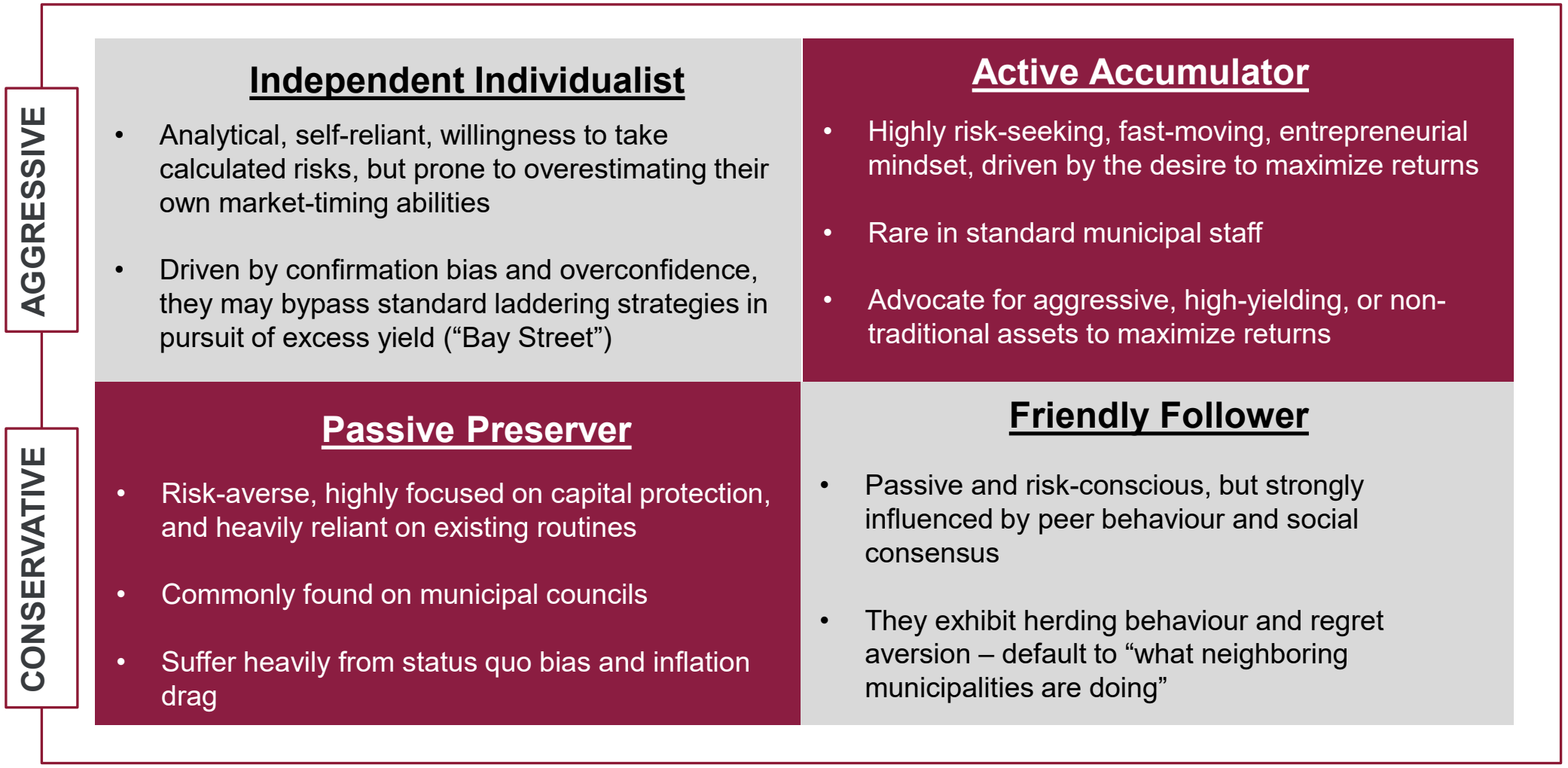
The Recency Effect

- Overweighting current short-term headline yields while ignoring historical multi-decade yield curve performance.

"Short-term yields are attractive today, so why extend duration?"

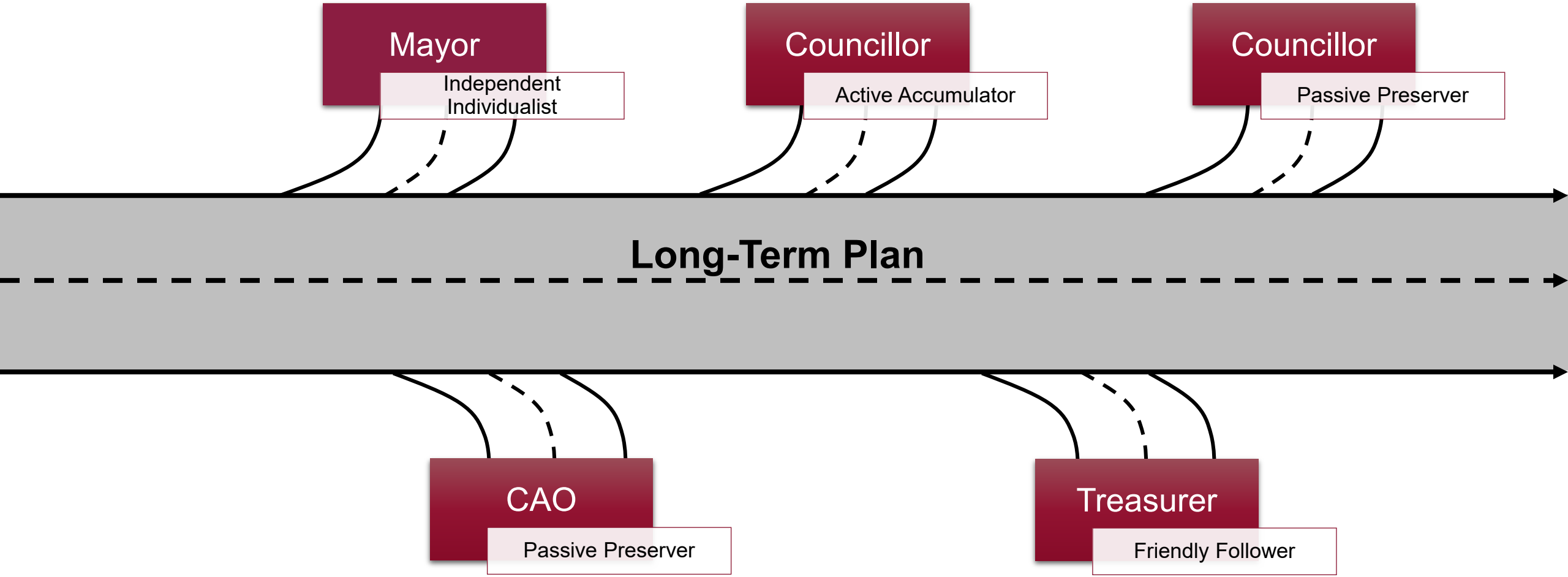
Stakeholder Analysis

Behavioural Investor Type Matrix



Stakeholder Analysis

Conflicting Behavioural Investor Types in a Municipal Setting



Case Study Analysis

Measuring the Cost of Behavioural Friction

Example: Medium-Sized Municipality (Legal List)

1) **Time Horizon / Liquidity Needs**
   - Legacy Fund = proceeds from sale of electric utility (endowment)

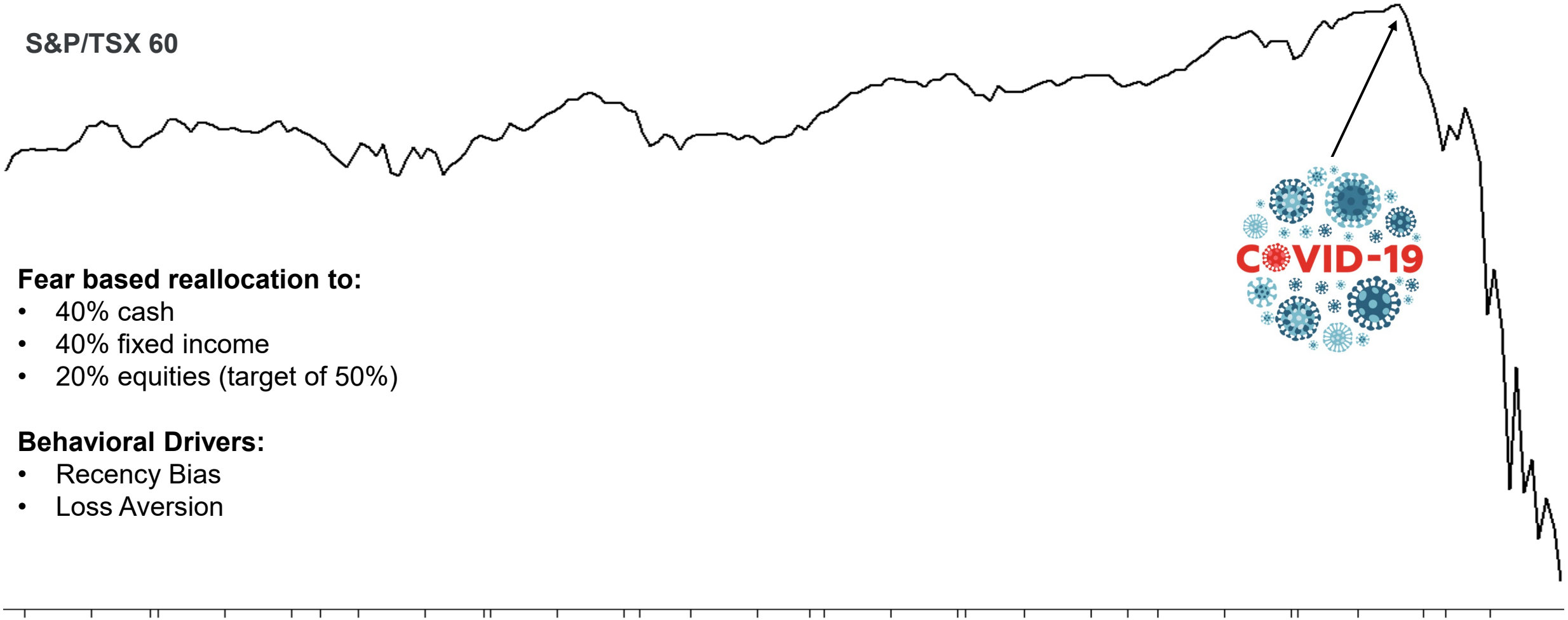
2) **Risk Tolerance**
   - High capacity for risk + Medium willingness to take risk

3) **Return Objective**
   - Hurdle rate of ~5%

4) **Target Allocation**
   - 50% Equity → ONE CAD Equity + Principal Protected Notes
   - 40% Fixed Income → Bonds + GICs
   - 10% Cash → High Interest Savings + Short-Term GICs

Case Study Analysis

Measuring the Cost of Behavioural Friction



Fear based reallocation to:

- 40% cash
- 40% fixed income
- 20% equities (target of 50%)

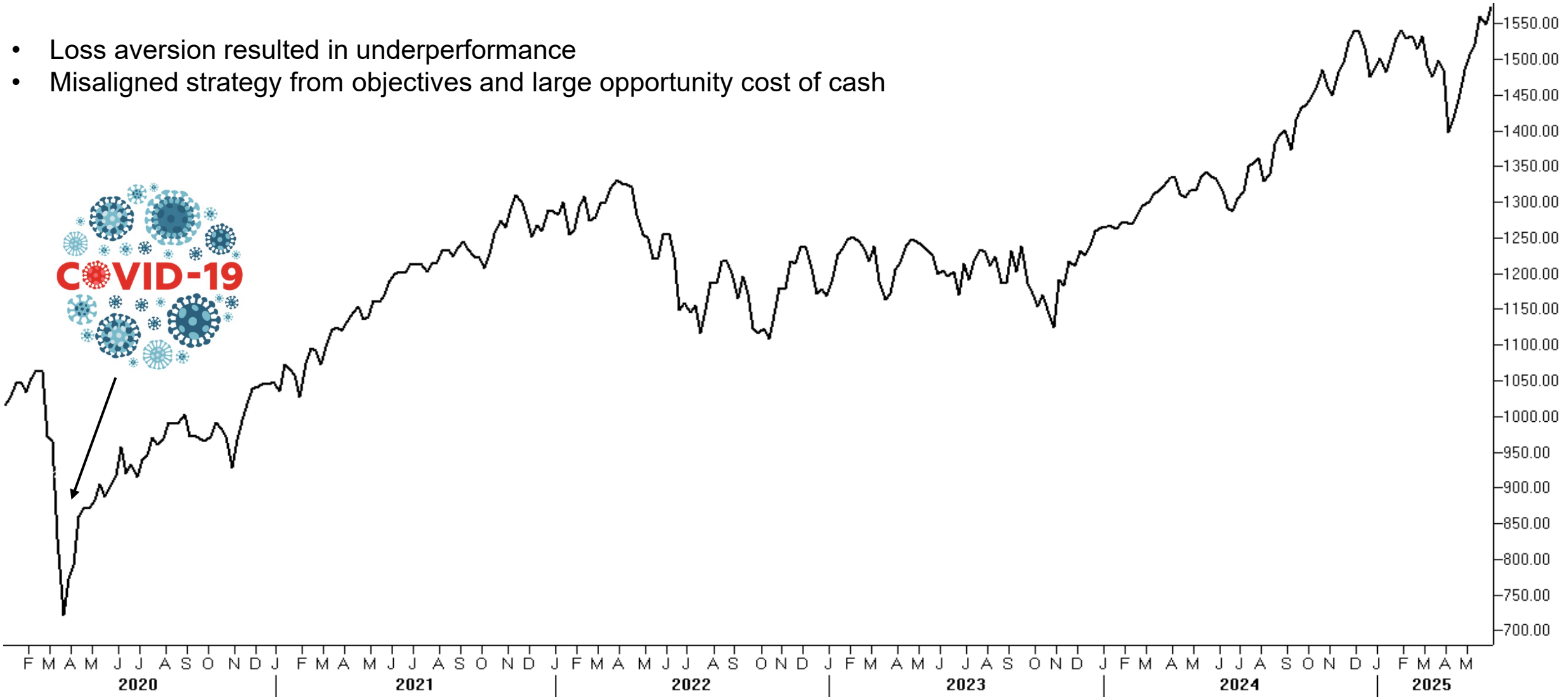
Behavioral Drivers:

- Recency Bias
- Loss Aversion

Case Study Analysis

Measuring the Cost of Behavioural Friction

- Loss aversion resulted in underperformance
- Misaligned strategy from objectives and large opportunity cost of cash



Case Study Analysis

Rolling 1-Year GICs via Request For Quote (RFQ)

Example: Medium-Sized Municipality (Legal List)

1) **Time Horizon / Liquidity Needs**
   - Water & Wastewater Reserve = capital asset replacement (5–10-year time horizon)

2) **Risk Tolerance**
   - High capacity for risk + low willingness to take risk

3) **Return Objective**
   - Earn more than current deposit rate with primary bank (Prime Rate - x%)

4) **Target Allocation**
   - 70% Cash → High Interest Savings
   - 30% Fixed Income → 1-Year GICs

Case Study Analysis

Rolling 1-Year GICs via Request For Quote (RFQ)

Here are the primary behavioural biases driving this behaviour:

1. **Status Quo Bias (The "Path of Least Resistance")**

    - **Potential Impact:** Treating the default option as the "safe" choice causes municipalities to miss out on longer-term, higher-yielding options.

2. **Recency Bias**

    - **Potential Impact:** Municipalities fail to lock in duration at yield curve peaks. When central banks eventually ease policy, the municipality experiences a massive yield drop on rollover ("reinvestment rate risk").

3. **Loss Aversion**

    - **Potential Impact:** Treasurers prioritize accounting stability over true economic value. Even though investments are typically held to maturity and redeem at 100% of par, the temporary "red ink" scares Finance Staff + Council into staying in GICs.

4. **Regret Aversion ("Fear of Being Wrong")**

    - **Potential Impact:** Fear of locking into a 5-year investment today, only for rates to rise tomorrow. If the municipality roll a 1-year GIC and rates drop, they can easily blame the BoC or market conditions. Shifting accountability to "the market" prevents proactive, liability-matched asset management.

Governance Mitigation

Importance of an Investment Policy Statement (IPS)

Staying Disciplined

- We are not wired for disciplined investing. When people follow their natural instincts, they tend to apply faulty reasoning
- A properly constructed investment policy serves as a roadmap to help ensure you are applying discipline to the investment management process



Best Practices

Importance of an Investment Policy Statement (IPS)

A well-written investment policy should address the following in detail:

1. Risk Tolerance
2. Return Objectives
3. Time Horizon
4. Liquidity Needs
5. Legislative Requirements
6. Other Considerations



Best Practices

Behavioural Finance Guardrails within IPS

Mandatory Portfolio Laddering

- **Behavioural Bias or Problem**:
  - Council or staff often hesitate to lock in 5-to-10-year investments during high-rate environments out of **recency bias** (hoping rates go higher) or avoid duration altogether in low-rate environments out of **status quo bias** (rolling cash in short-term GICs or HISA).

- **Solution**:
  - Embed rigid, policy-mandated maturity bands directly into the Council approved IPS:
    - **Liquidity Bucket (0-1 Year):** 10-20% → daily operational needs & immediate capital outlays
    - **Short-Mid Bucket (1-3 Years)**: 20-30% → near-term capital projects & DC reserves
    - **Mid-Long Bucket (3-5 Years):** 30%-40% → asset replacement & reserve funds
    - **Long Bucket (5-10 Years):** 20%-30% → long-term infrastructure & debenture sinking funds

- **Impact**:
  - Staff no longer need to “predict” where interest rates are going. When a 5-year bond matures, the IPS mandates that it be reinvested back into the 5-to-10-year bucket, ensuring systematic yield capture across full 10-year economic cycles.

Best Practices

Behavioural Finance Guardrails within IPS

Asset-Liability Matching (ALM)

- **Behavioural Bias or Problem**:
  - Council or staff often view the entire reserve portfolio (e.g., $10M) as a single liquid lump sum. Consequently, long-term reserves are managed with short-term liquidity profiles, causing severe **real purchasing power erosion** due to inflation.

- **Solution**:
  - Structure reserve accounting into three distinct sub-portfolios mapped directly to the municipality's 10-Year Capital Forecast:

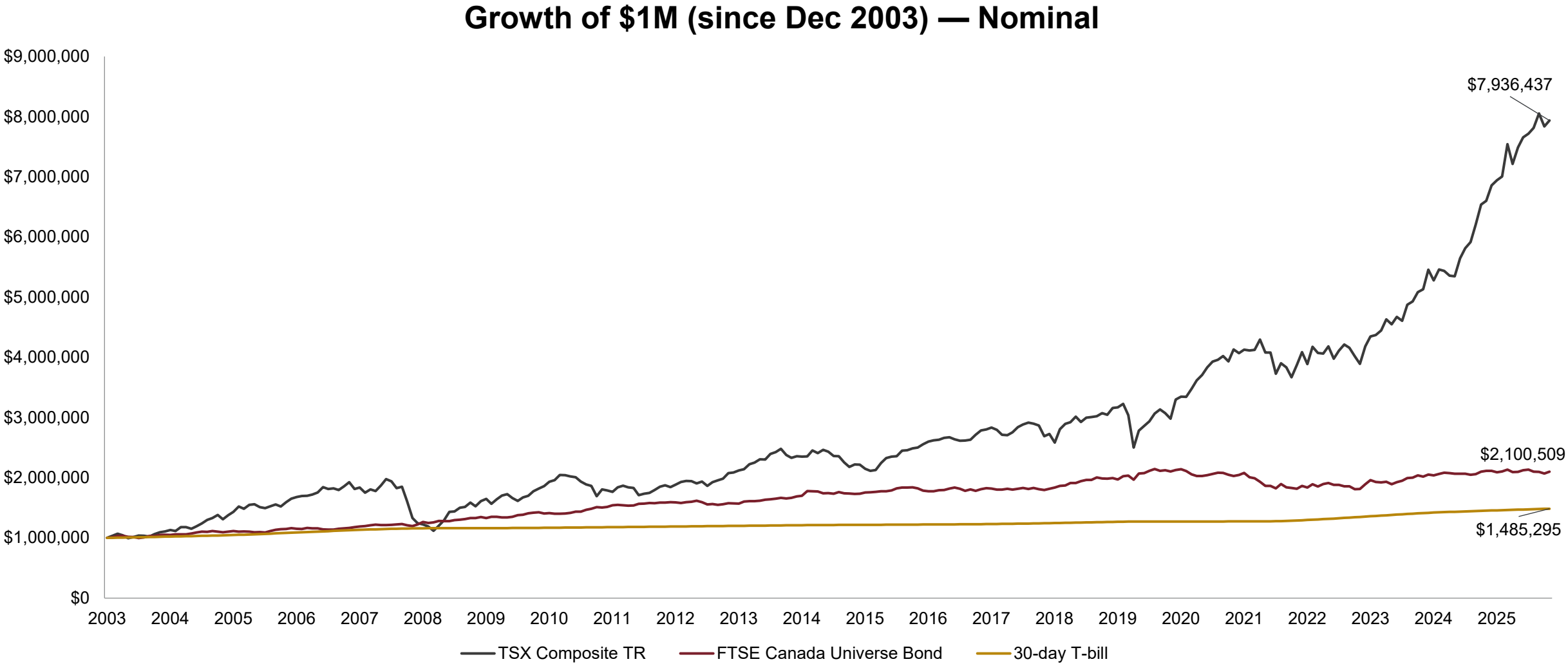
    1. **Working Capital Pool:** Backed 100% by high-liquidity, high-grade short-term investments (HISA/GICs) to cover cash flow seasonality (e.g., property tax collection cycles).

    2. **Asset Renewal Reserve Pool:** Matched to the 3-to-7-year capital repair schedule using structured fixed income (e.g., bank bonds, provincial/municipal bonds).

    3. **Strategic/Perpetual Reserve Pool:** Matched to long-term liabilities utilizing extended duration or broader legal list mandates (e.g., ONE CAD Equity & > 7yr bank bonds/PPNs).

Opportunity Cost of Strategy

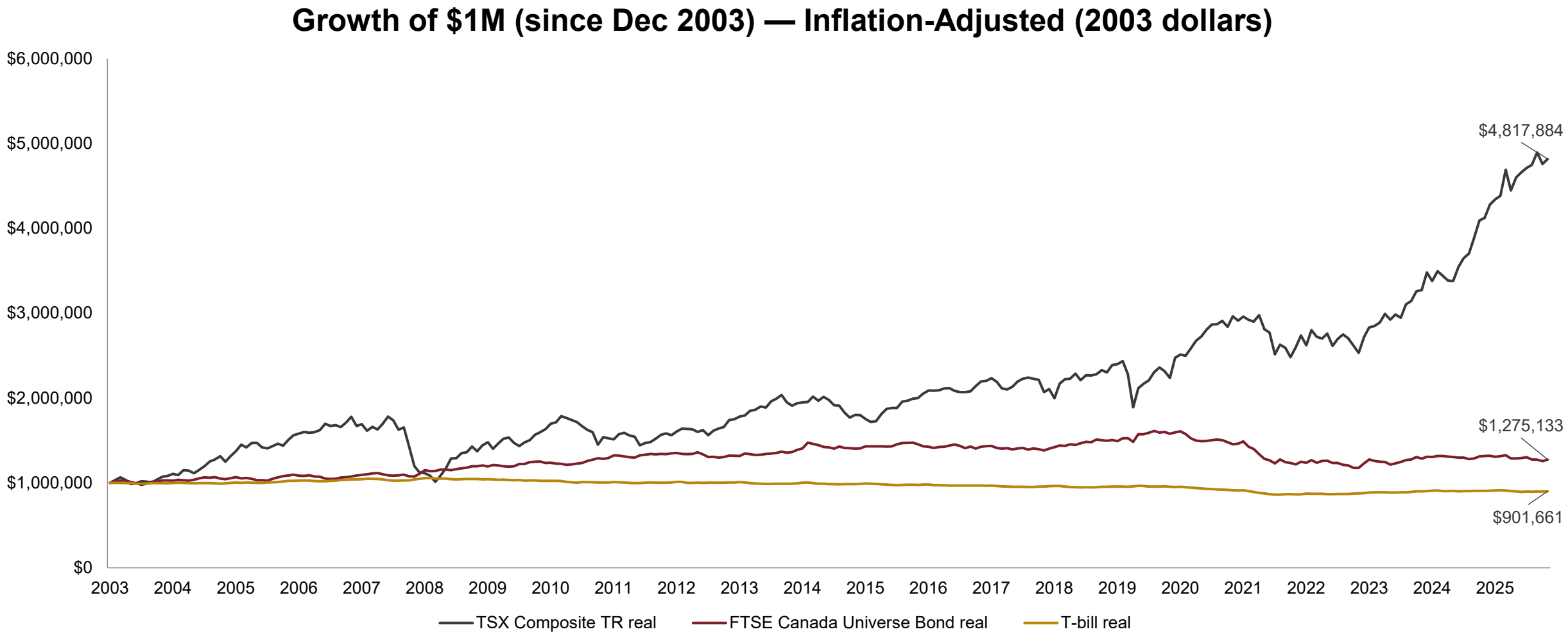
Measuring the Impact



Source: Bloomberg & Bank of Canada

Opportunity Cost of Strategy

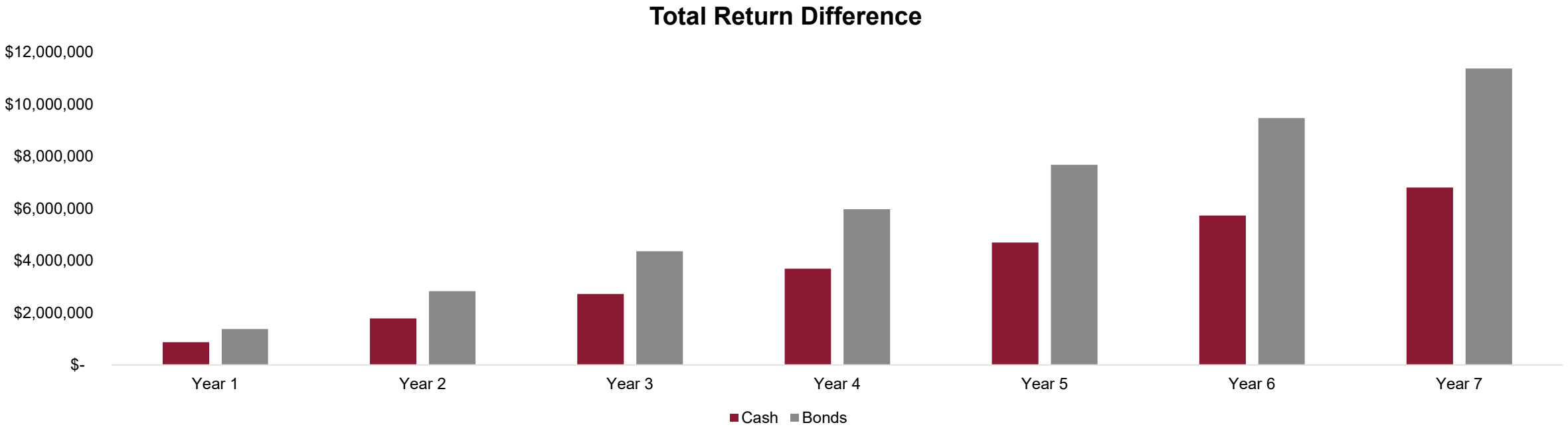
Measuring the Impact



Source: Bloomberg & Bank of Canada

Opportunity Cost of Strategy

Measuring the Impact



Assuming $25m invested and a 2% spread between cash and a portfolio of bonds

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Cash	$25,875,000	$26,780,625	$27,717,947	$28,688,075	$29,692,158	$30,731,383	$31,806,982
Bonds	$26,375,000	$27,825,625	$29,356,034	$30,970,616	$32,674,000	$34,471,070	$36,366,979
Cumulative ($)	*$500,000*	*$1,045,000*	*$1,638,087*	*$2,282,541*	*$2,981,842*	*$3,739,687*	*$4,559,997*

Best Practices

Communicating Volatility & Strategy to Council

- **Behavioural Bias or Problem**:
  - Myopic **Loss Aversion** causes elected officials to panic when rising interest rates cause high-grade bonds to show an *unrealized paper loss* on annual statements. This often leads to ill-advised demands to liquidate bonds or PPNs at a loss or shift exclusively to cash.

- **Solution**:
  - Re-frame annual treasury reports to Council by separating accounting mechanics from economic reality:

    1. **Lead with Yield-to-Maturity (YTM) & Cash Flow:** Emphasize that fixed-income securities are held-to-maturity and will redeem at 100% of face value (par), meaning market fluctuations do not impact actual dollar payouts. Focus public reports on net annual budget interest income generated rather than day-to-day bond prices.

    2. **Report Real Returns (Nominal Yield – CPI):** Benchmark portfolio returns against the Municipal Construction Price Index (non-residential building construction inflation).

    Example → Showing Council that a 2.5% cash yield loses 2.5% real purchasing power during 5.0% construction inflation clearly highlights the hidden risk of “safe” cash.

Action Plan

Roadmap for Municipal Treasurers

Phase 1: Audit

- Conduct an internal audit of cash drag over the past 3 years.
- Formalize cash flow projections to establish clear reserve horizons.

Phase 2: Structure

- Council alignment.
- Present an updated, de-biased IPS to Council with guardrails in place and clear education on inflation risk.

Phase 3: Governance

- Create a plan and stick to it.
- Success lies in disciplined, plan-driven investing.

Wrap-Up

Interactive Q&A Session



“Systematic processes protect public funds where human intuition falls short.”

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