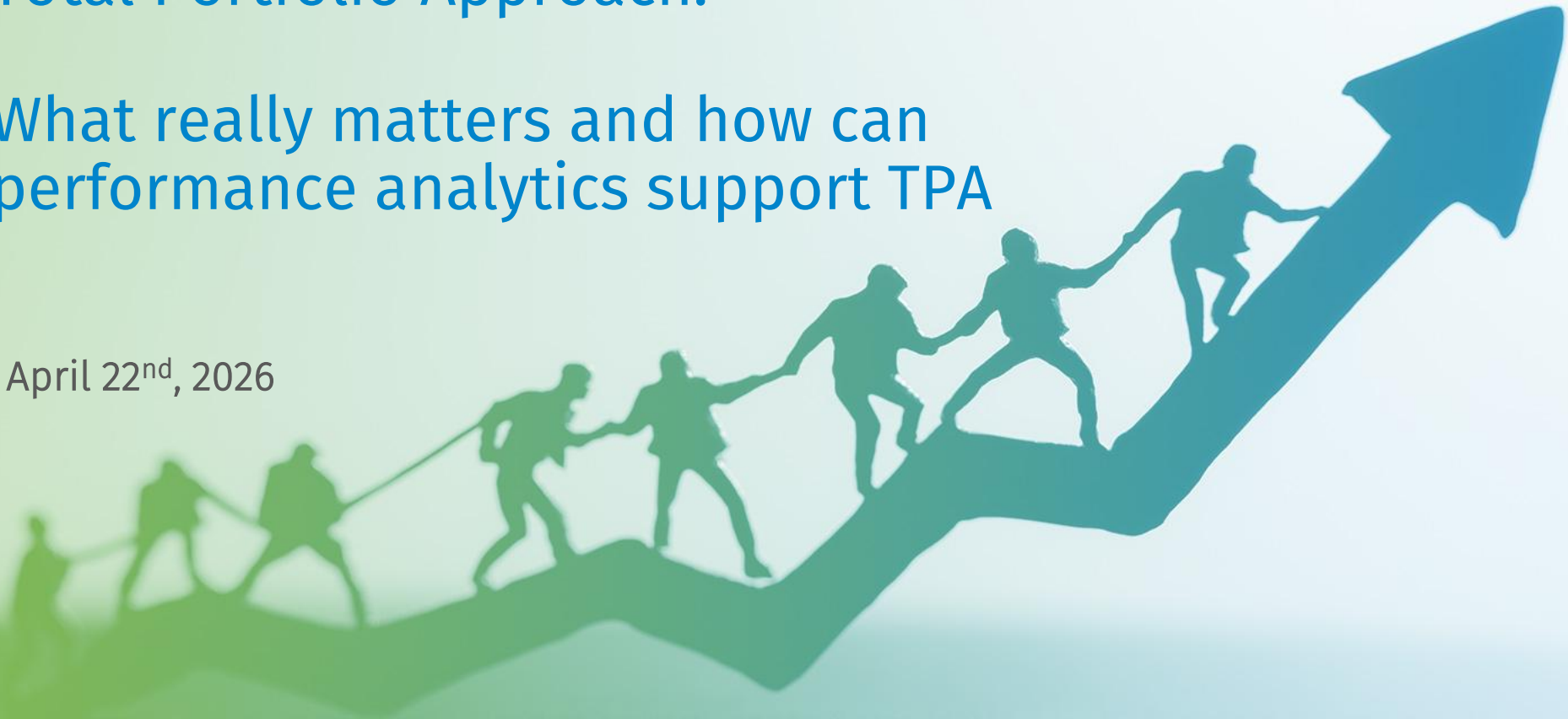


Total Portfolio Approach:

What really matters and how can performance analytics support TPA

April 22nd, 2026



Our company



Expert provider of investment decision technology and solutions



Founded in 1981, 400+ employees, offices in Rotterdam (HQ), Amsterdam, London, Toronto, Zurich, Melbourne and Singapore



Independent – 100% owned by employees



Global and long-standing client base, excellent client satisfaction and implementation track record



Innovative & strong ties to academic world

Solutions for institutional investors

Software

GLASS

ALM, Asset Allocation and Strategic Risk Management

PEARL

Performance Measurement, Attribution and GIPS

Climate Scenario Explorer

Climate Change Impact Analysis

Services

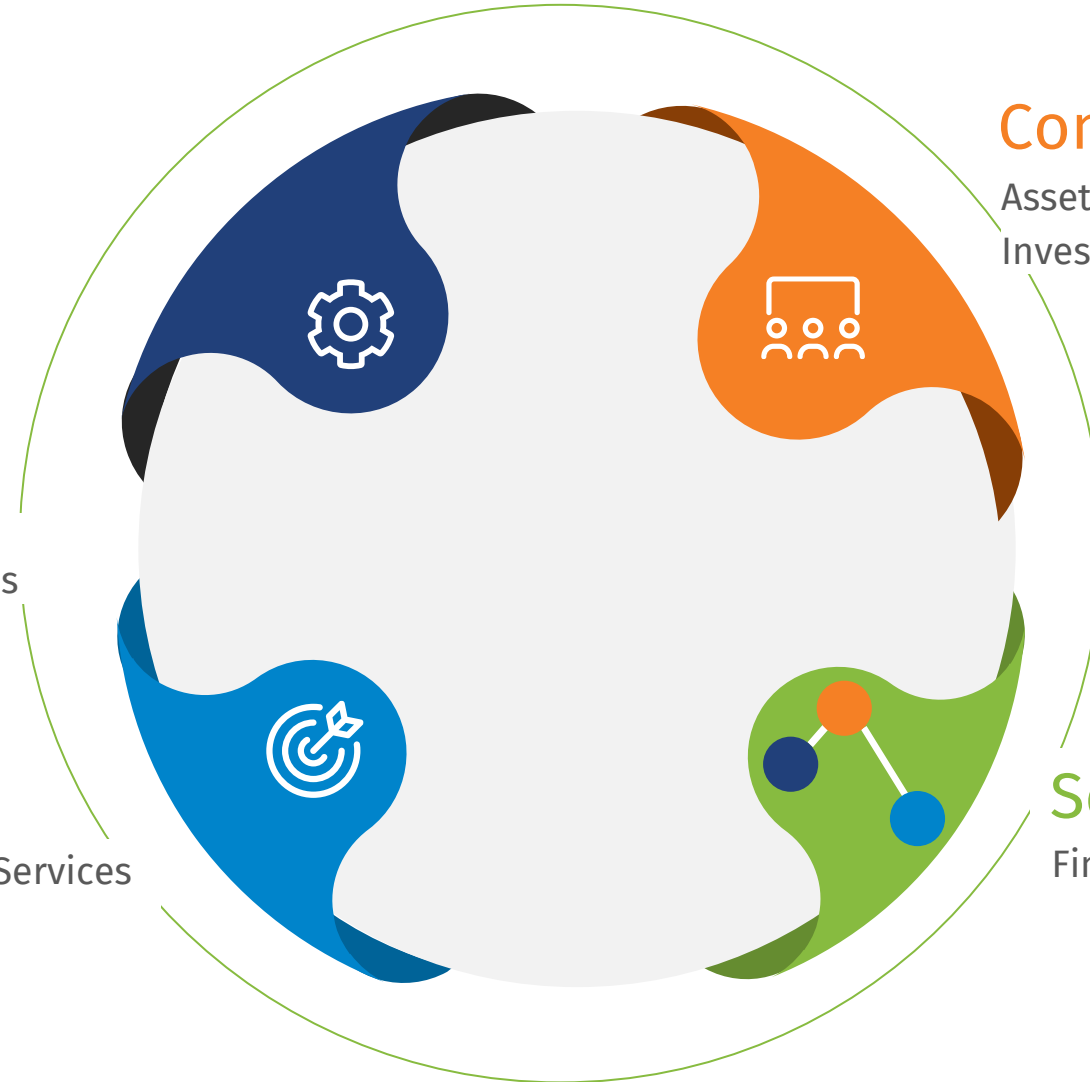
Investment Performance Services
Risk Monitor Reporting

Consulting

Asset Liability Management studies
Investment Consulting

Scenario data

Financial risk and climate scenarios





Agenda

Total Portfolio Approach

- Introduction to TPA
 - Governance – Implementation - Navigation
- How TPA works
 - The asset allocation process
 - The feedback loop
- Open discussion:
 - Is your organization using TPA – in which shape and form?
 - Does it lead to specific requests on performance reports?
 - Do you provide feedback to the TPA process and CIO?
 - What would you consider a suitable method to analyze the added value of TPA?

Why change from SAA to TPA?

SAA

offers **discipline, stability,**
and **clarity**

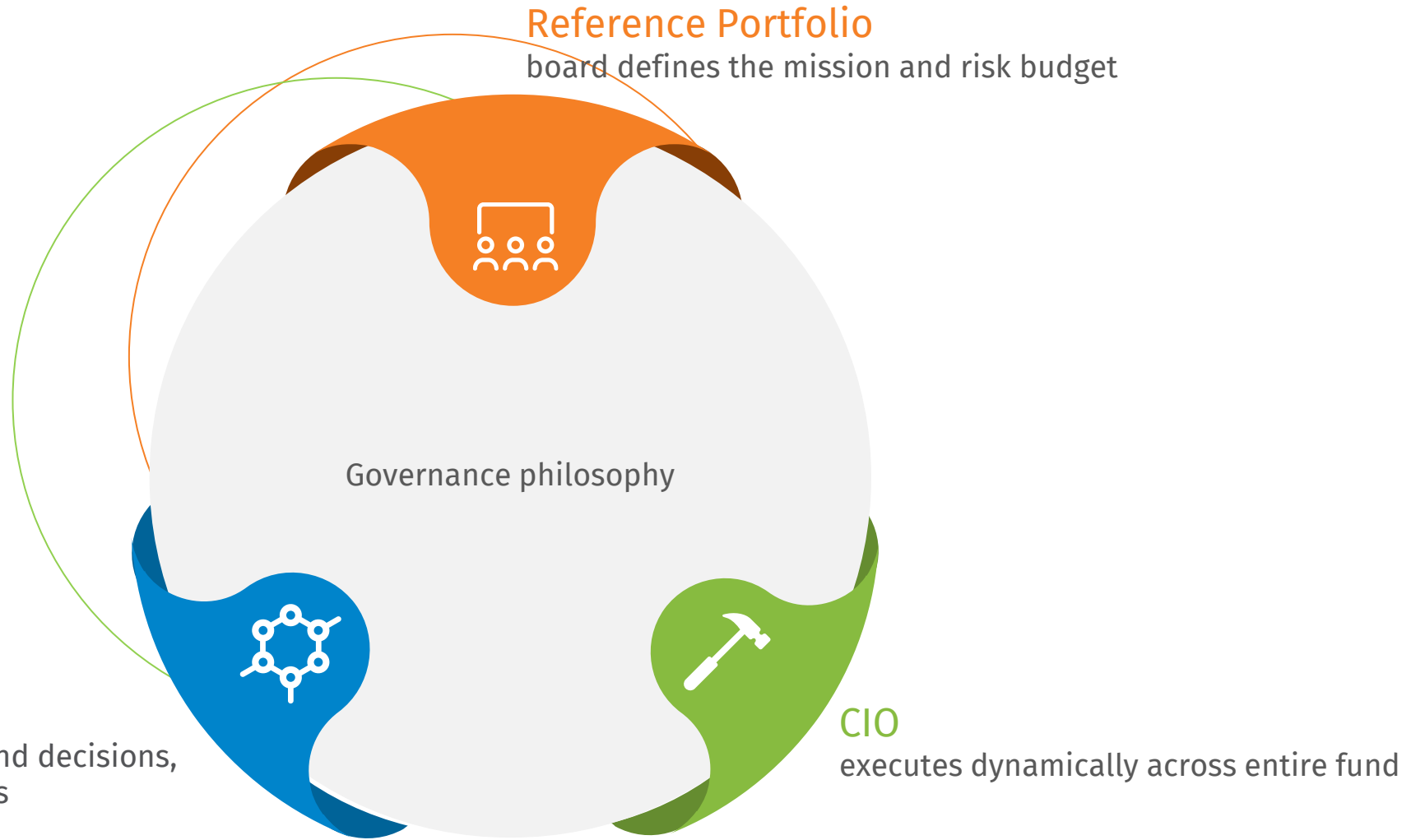
TPA

offers **discipline, pivots,**
collaboration, and **agility**



faster **crises,** higher
illiquidity, and
greater **complexity**

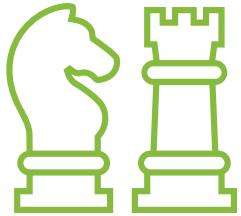
What is TPA?





TPA at a glance

Structured around three key pillars



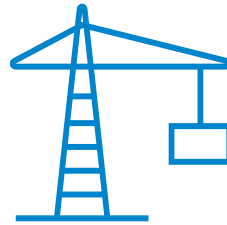
Governance

Mission & Reference Portfolio;
Clarity on purpose, risk and return

Risk budget & rules; Volatility,
liquidity, pacing, drawdown

Roles and responsibilities; who
decides on what, escalation paths

Collaboration & accountability



Implementation

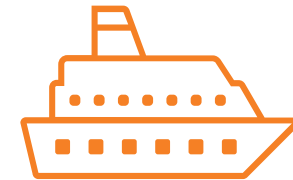
Defining the Reference Portfolio

Weighting factor exposures

Optimize relative to the reference
portfolio

Integrate liquid book

Translate into asset allocations



Navigation

Compare Reference Portfolio vs Asset
Allocation Decisions vs Actual Portfolio

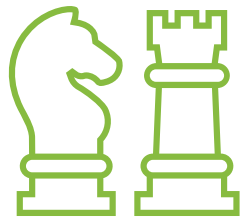
Track actual factor exposures and use
of risk budgets

Oversight pack; where are we and
where do we want to go.

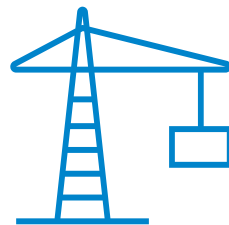
Still on track or changes needed?

Governance structure: Clear Roles, Fast Decisions

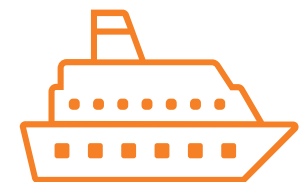
Clarity and accountability enable agility



Governance



Implementation



Navigation

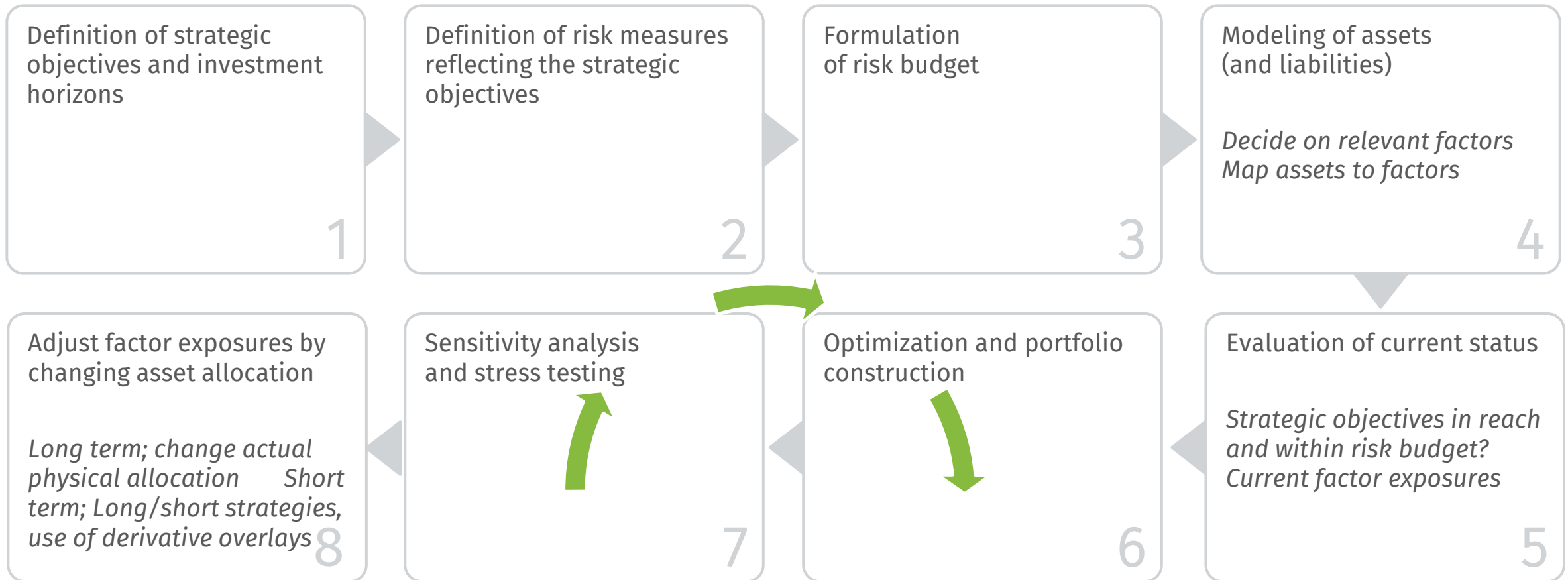
How TPA Works in Practice





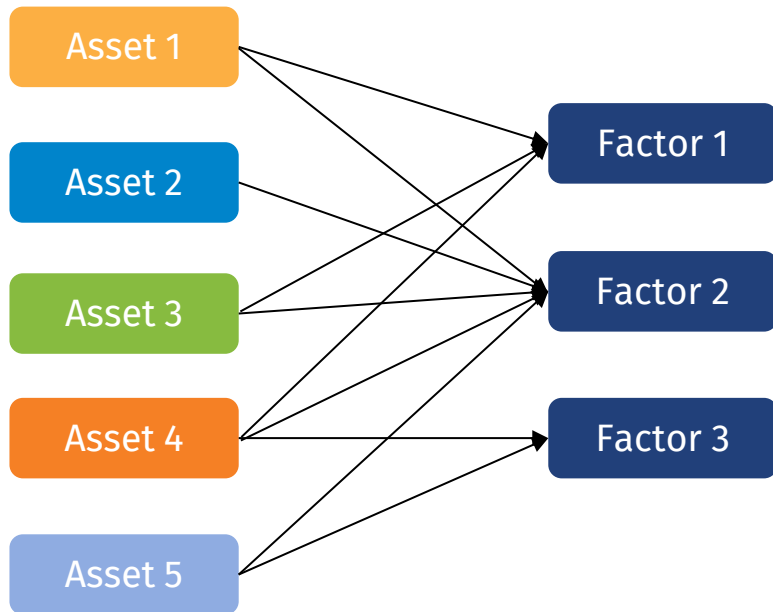
TPA investment process

The full cycle



Implementation

Factor definitions



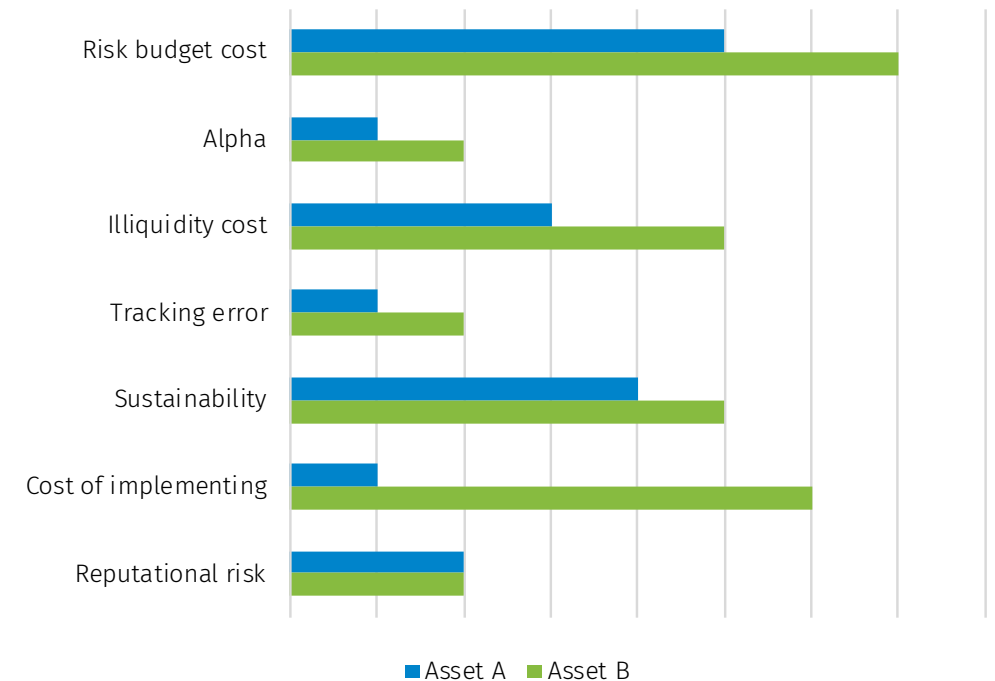
- There is a variety of factor definitions available;
 - Macro factors vs. beta approach vs. more sophisticated (value momentum, thematic etc.)
 - Qualitative vs quantitative approach to setting factors
- Within each approach lots to choose from in addition
 - Long vs short positions, illiquidity, sustainability
- Decide on strategic factor weights
 - Translate to asset weights/ asset allocation
- No one size fits all!

Implementation

Allocating risk budgets

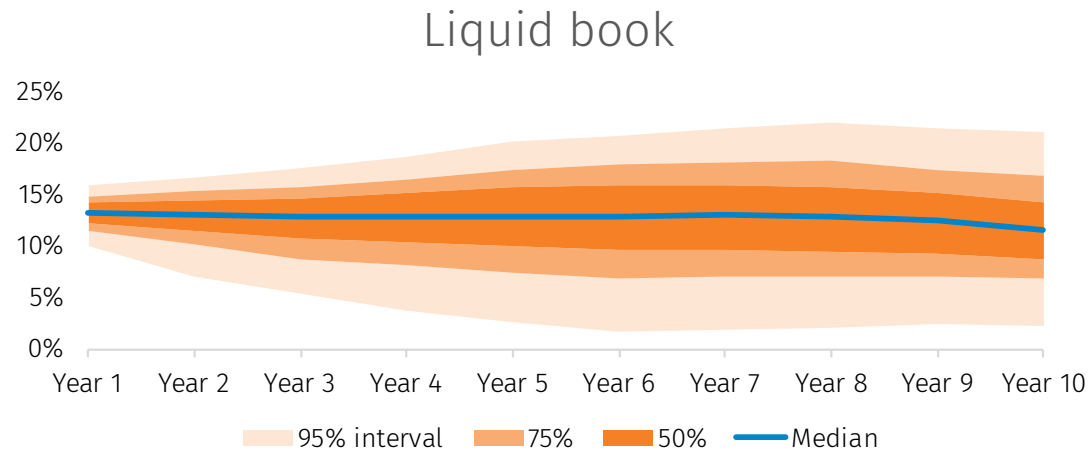
- How do you allocate the risk budget?
 - Risk is the scarce resource here, not capital.
 - Every decision (strategic or active) competes for the *same* risk budget.
 - Every asset also take up a certain amount of liquid asset budget available
 - Investing in one asset forgoes investing in another
- Cost of capital in terms of for instance risk budget use and tracking error
- Added value in terms of alpha or other risk metrics (e.g. sustainability, diversification)
- Create a matrix of costs and gains on different metrics.

Comparison two investment options



Implementation

Liquidity factor analysis

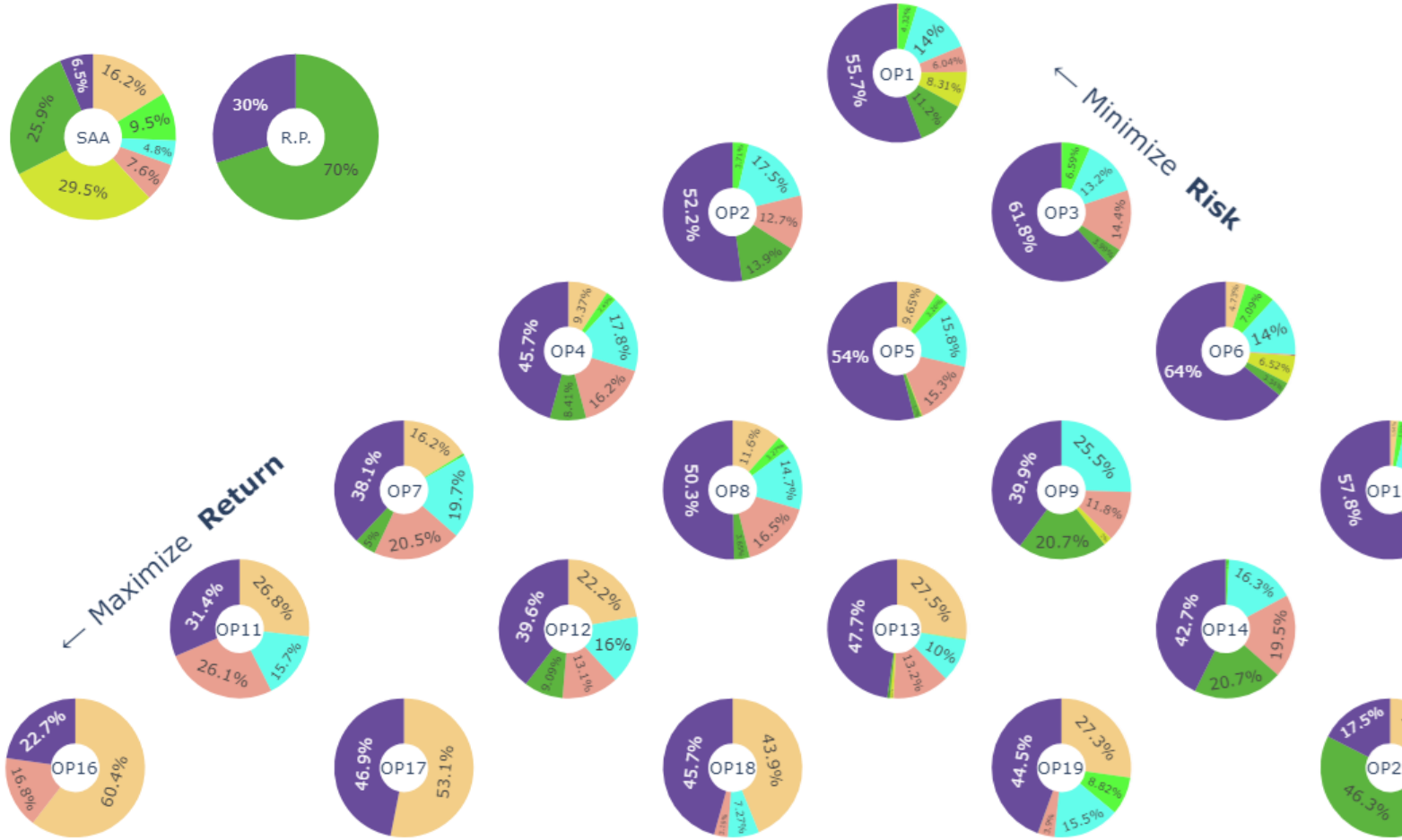


- Analyzing what is the cost of investing in private markets in comparison to the more liquid opportunities
- What is the excess return required for cash to be locked up for a long period?
 - Measure this expected excess return in regular TPA steering framework
- Compare behavior of proxy portfolio with actual portfolio
 - illiquidity factor



Implementation

3D optimization



Assets

- Private asset 1
- Private asset 2
- Private asset 3
- Private asset 4
- Less liquid asset 1
- Liquid asset 1
- Liquid asset 2

Net-Zero
Explores **risks/opportunities** under a highly ambitious but **orderly net-zero** scenario
0↑ 1.6°C

Net-Zero Financial Crisis
Explores **disruptive reaction** from financial markets under an a highly ambitious **net-zero** scenario
0↑ 1.6°C

Delayed Net-Zero
Explores **disruption** from a delayed transition with a step-up in policy action from 2030
0↑ 1.9°C

High Warming
Explores **severe physical risks** under current policies
0↑ 3.7°C

Limited Action
Explores **falling short of meeting emissions targets** and high exposure to physical risks
0↑ 2.9°C

Maximize

Navigation

Monitor risk

Monitor risk and return of the reference portfolio and actual portfolio.
Total risk budget used adequately?
Did TPA decisions add value to total fund?

Analyze investment opportunities

What is currently the best way to achieve the desired factor exposure?
Compare expected and realized alpha relative to reference portfolio per strategy



Monitor factor exposures

Monitor factor exposures compared to long term strategy
Are there reasons to adjust the factor exposures?

Liquidity analysis

Compare expected alpha with cost of liquidity
Are we aligned with liquidity constraints

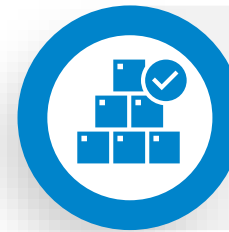
TPA Challenges

TPA builds on the SAA foundation



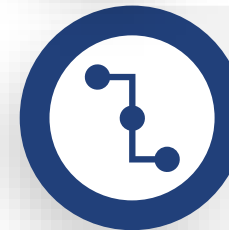
Governance Maturity

- Trust over control
- Boards set the rules and teams make the moves
- Culture & collaboration
- Success depends on shared objectives and aligned incentives.



Technological Readiness

Legacy tools are unsuitable. Systems with total visibility are necessary.



Data Integration

Different systems, reporting cycles, and a focus on the whole field.



Change Management

New reflexes, new rhythms. From fixed weights to flexible thinking.

Conclusion



Goal

not to predict the future, but to be ready for any future



Not one-size-fits-all

tailored to governance maturity, culture, and context



Governance

Balance between discipline and flexibility



Oversight

Total portfolio view to provide useful feedback loop



Discussion

Total Portfolio Approach

- Is your organization using TPA
 - In which shape and form?
 - Does it match the presented framework?
 - If not now, any plans to move to TPA?

- Does TPA (or traditional SAA) lead to specific requests on performance reports?
 - Do you provide total fund attribution?
 - How to provide useful feedback to the TPA (SAA) process to board and/or CIO?
 - Which decisions are the main drivers of the fund performance?


- What would you consider a suitable method to analyze the added value of TPA?

Contact me



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