

HEALTH WEALTH CAREER

MERCER SENTINEL® GROUP

MERCER SENTINEL SERVICES



MAKE TOMORROW, TODAY

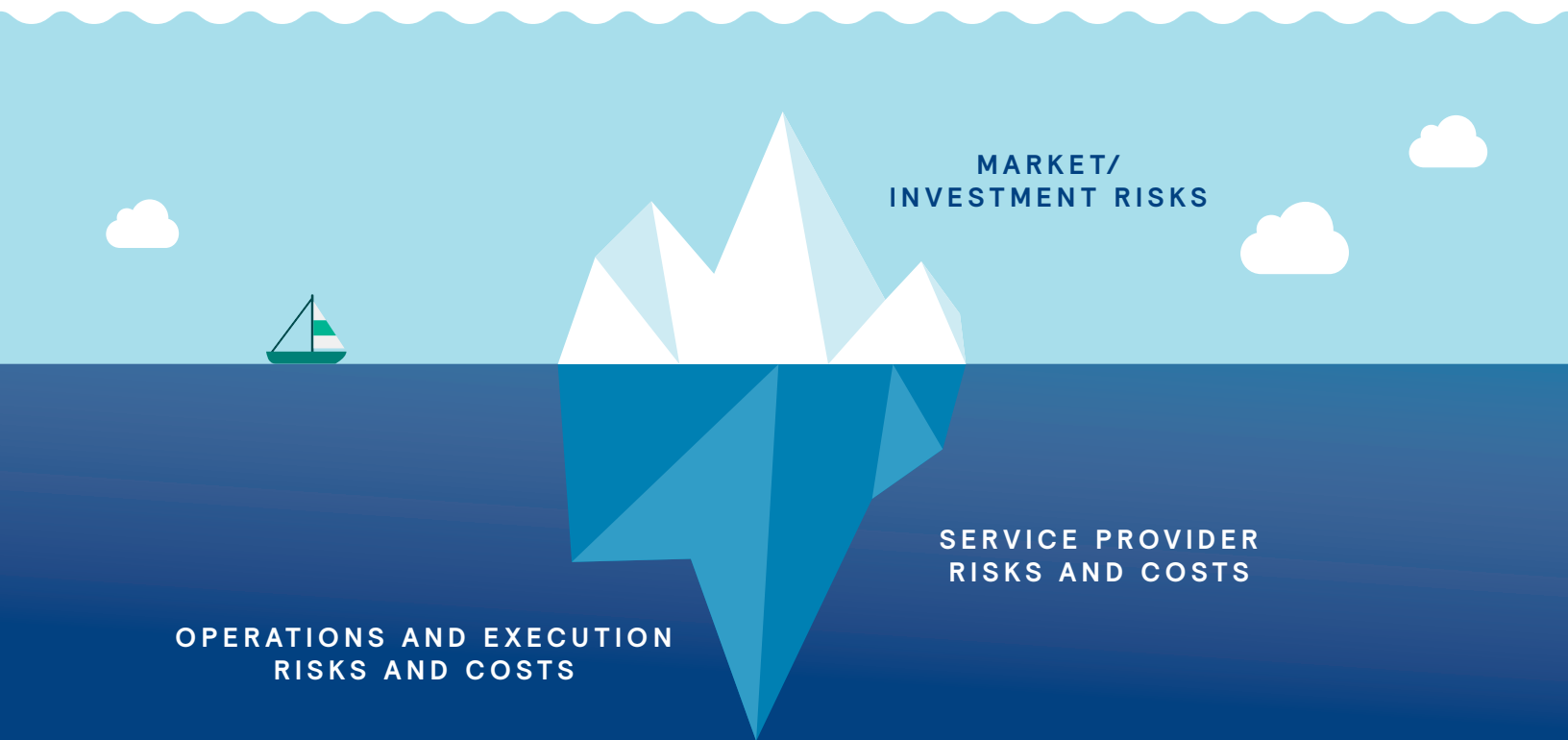


FIDUCIARY CHALLENGES

In managing institutional investment programs, the primary focus is typically investment returns and market risk.

However, prudent investment professionals know that, in addition to return objectives, there are other significant challenges to address:

Investment implementation costs, service provider risks and costs and operational risks can be material and are not easily identified or evaluated.



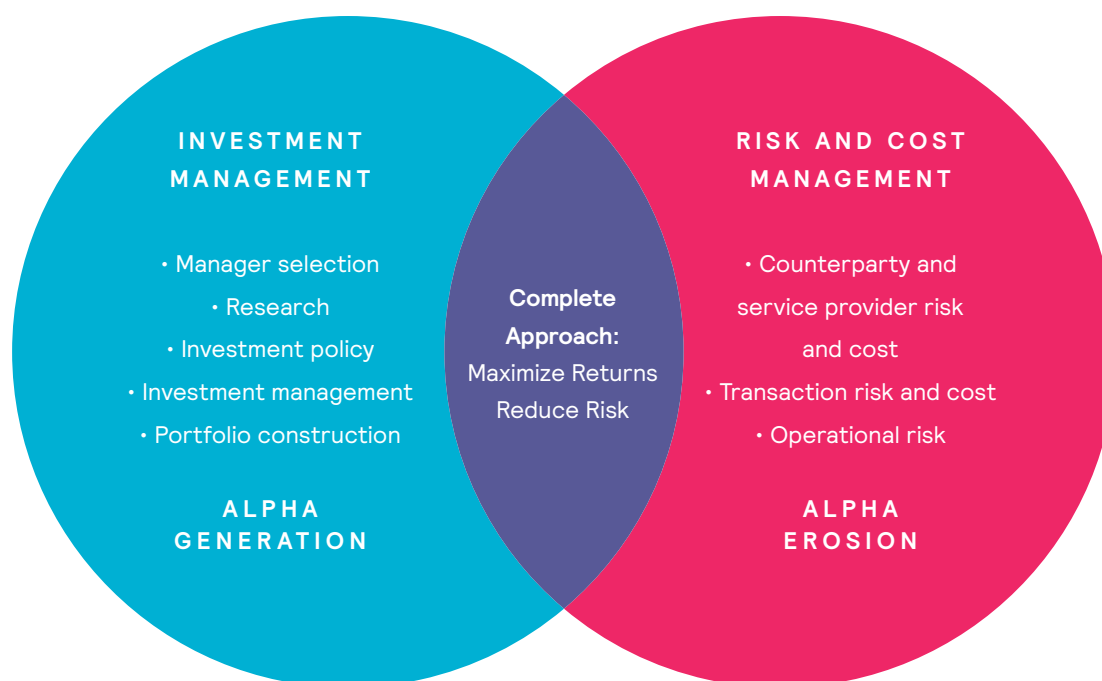
These challenges include:

- Managing service provider relationships, such as custody providers
- Reducing operational risks and improving operational efficiency
- Managing implementation and transaction costs
- Demonstrating overall good governance

A COMPREHENSIVE APPROACH

In Mercer's view, the most effective and comprehensive approach to investment management focuses equally on maximizing return/alpha generation and minimizing return erosion.

How is this desirable result best achieved?



Mercer recognizes that nonmarket risks pose **unique, discrete challenges** to investors.

MERCER CAN HELP

To address these challenges, Mercer created a dedicated team, **Mercer Sentinel**, that has specialized expertise and a unique focus. Having the proper, relevant experience is critical to assessing these functions effectively.

MERCER SENTINEL OVERVIEW

Mercer Sentinel is a dedicated, specialized global team within Mercer’s Investments business that focuses on the risks and costs of investment operations, custodians and investment execution.

We use our deep experience and broad, multidisciplinary expertise to provide a comprehensive analysis of these complex operational issues.

MERCER SENTINEL SERVICES INCLUDE:				
Custody provider service evaluation, fee benchmarking, securities lending assessments and custodian searches	Asset transition consulting, transition coordination and transition manager search/evaluation	Foreign exchange and equity transaction cost analysis (TCA)	Operational risk assessments, surveys and consulting	Investment risk management and governance consulting

OBJECTIVES

Reduce risk and improve returns through better management and control of the activities associated with holding, trading and servicing portfolios.



MERCER SENTINEL VALUE PROPOSITION

WE OFFER ...

Dedicated specialists focused solely on governance, service provider and investment operations, and execution risk:

- We are not generalists; investment operations, custody and execution risks are our primary focus.
- We evaluate a firm's control environment and asset administration processes within the context of the surrounding investment organization and key service provider relationships.

Extensive knowledge of industry best practices:

- Our team has vast experience globally performing hundreds of projects per year over the past 15 years. This provides us with keen insight into industry best practice.

Expert team with highly specialized backgrounds:

- Our philosophy is "best in front": We provide clients access to our most skilled professionals, with extensive experience in custody, operations, transitions and investment administration.

Global reach:

- As a global team (50+), we use our local knowledge to benefit clients who invest internationally.

WHAT DOES THAT MEAN FOR INVESTORS?

Resources on demand:

- Operations, service provider and execution risk evaluations can be time-consuming exercises and a poor use of existing resources. **We offer immediate exposure to best-in-class capabilities regarding the governance and implementation of investment operations.**



MERCER SENTINEL SERVICE DESCRIPTIONS

CUSTODIAN FEE REVIEW

The Risk: Materially overpaying for custody services based on a dated pricing schedule

Fee benchmarks help clients understand whether their custody fees are competitive compared to current offerings in the marketplace. Mercer has the expertise to interpret the nuances of fee schedules to create comparisons that a simple bidding process could overlook.

HOW CLIENTS BENEFIT FROM CUSTODIAN FEE BENCHMARKING



Clients can determine if the current fees are in line with the level of service being offered



Benchmarking can streamline the fiduciary due diligence on an existing service provider

SECURITIES LENDING REVIEW

The Risk: Assuming excess risk or accepting inferior returns in securities lending.

Securities lending reviews against market practices enable good governance and can also identify economic opportunities. Our extensive experience in securities lending program management enables Mercer to add value relative to standard market offerings.

HOW CLIENTS BENEFIT FROM SECURITIES LENDING EVALUATION



Opportunities for improved lending revenue generation



Greater transparency, reporting and risk mitigation



Better value for risk undertaken



Contracts aligned with best practices to minimize financial and operational risk

CUSTODIAN SERVICE REVIEW AND SEARCH

The Risk: Suffering material staff inefficiency and excess cost by failing to examine existing custody services and fees

Fee and service reviews provide clients with both a capabilities benchmark and real, at-market pricing proposals from the custodians. With these two types of information, investors can obtain better results and better value. Mercer adds value to the process by understanding and explaining how costs and operations interrelate.

HOW CLIENTS BENEFIT FROM CUSTODIAN FEE AND SERVICE REVIEWS		
Enable asset owners to complete critical fiduciary due diligence for committees, boards and auditors	Provide insight into competitive custody industry pricing to achieve the appropriate fee level	Gain access to deep custody and RFP expertise using Mercer as an outsourced subject expert



PROJECTS COMPLETED OVER THE LAST THREE YEARS HAVE IMPROVED SERVICE LEVELS AND IDENTIFIED FEE SAVINGS OF 20%-40%.

FOREIGN EXCHANGE (FX) REVIEW

The Risk: Suffering excess transaction costs by failing to examine an existing FX relationship

FX reviews help clients understand whether their FX costs are **appropriate** and **competitive** relative to their size and other offerings in the marketplace. Based on our analytical techniques and operational insights, clients have been able to identify excess FX costs and negotiate hard savings.

HOW CLIENTS BENEFIT FROM FX REVIEWS			
Identify excess costs and sources of inefficient trading	Provide the transparency required for evaluation	Document the oversight process	Support effective negotiation, enabling more competitive pricing



In the chart above, the portion of the bars above the dark blue line on the negative side represent **excess FX costs** for the investor.

For the actual fund this chart is based on, the excess costs incurred were almost \$1,000,000 per year.

Equity transaction cost analysis (TCA) provides the same sort of insights and transparency on equity trading activity.

TRANSITION MANAGER EVALUATION

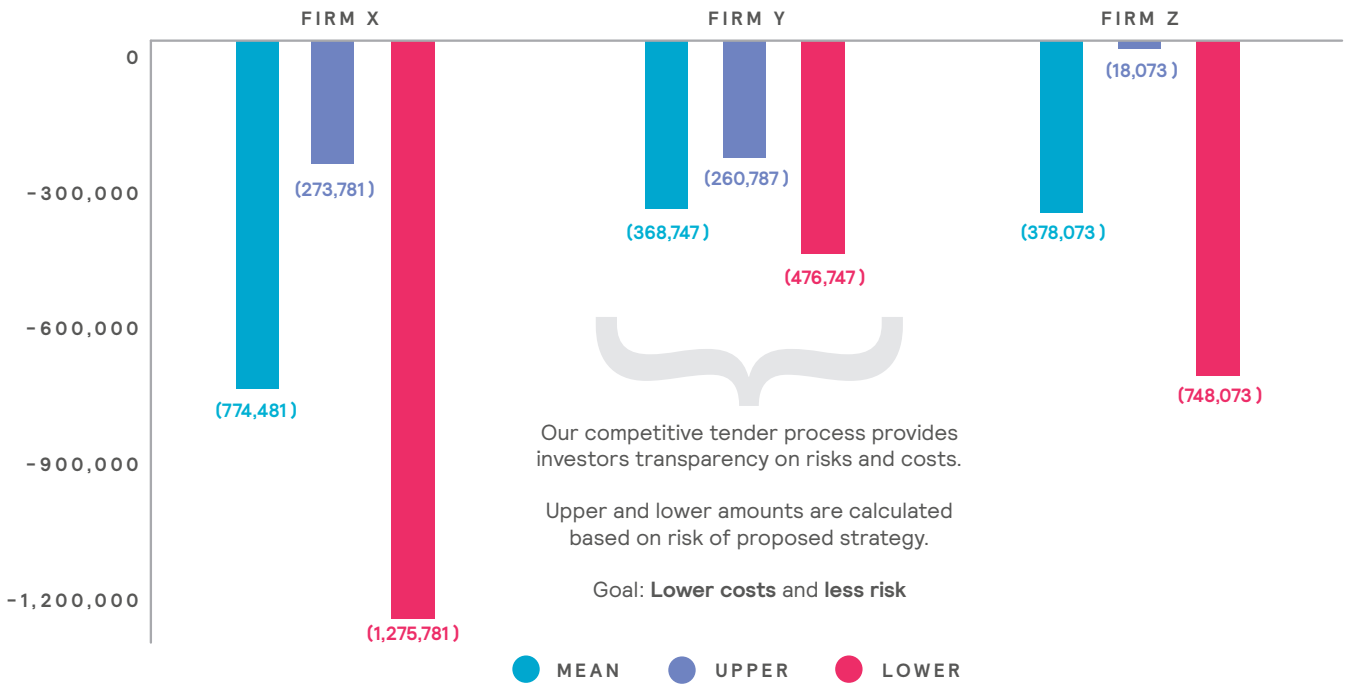
The Risks:

- 1) Suffering material losses from **unintended exposures** during an asset restructuring
- 2) Selecting an expensive transition service – in competitive tenders among top-tier firms, we’ve seen **average cost dispersion of almost 20 bps**, which means tendering has value

Transition manager evaluations use a competitive tender process, on an anonymous basis, to identify weaknesses that present risks and potential excess costs to investor assets.

HOW CLIENTS BENEFIT FROM TRANSITION MANAGER EVALUATION				
Competitive tender provides effective price discovery	Project names and portfolio-masking protect confidentiality	Proprietary response format enables us to compare and contrast proposals effectively	Uniquely experienced team negotiates knowledgeably for clients	Mercer's buying power elicits top responses from providers

COMPETITIVE TENDER FEE ESTIMATES



TRANSITION COORDINATION

The Risks:

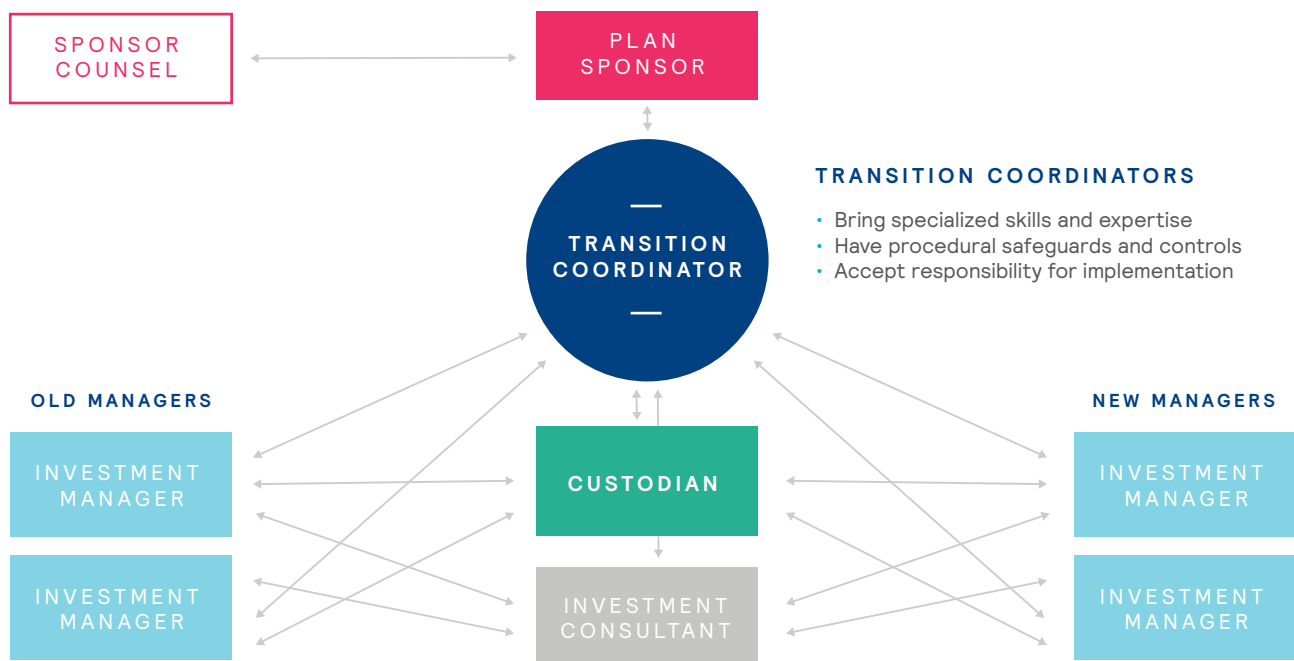
- 1) Investor lacking in-house expertise/experience to manage detailed investment implementation
- 2) Poor human oversight or logistics causing losses during an asset restructuring

Transition coordinations are large asset restructurings that have cash transfers. Although they don't always include securities transactions, they can still present very significant operational risks, particularly when they're complex.

Key point: Asset transfers are **complex** and coordination is **extremely detailed!**

HOW CLIENTS BENEFIT FROM TRANSITION COORDINATION SERVICES

Reduced burden on internal resources	Mercer's specialized skills and project management expertise	Mercer's procedural safeguards and controls	A single party responsible for all implementation issues	Reduced concern about getting detailed logistics correct
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OPERATIONAL RISK ASSESSMENTS AND CONSULTING

The Risk: Suffering material losses or erosion of returns due to operational errors, failures or fraud

Mercer Sentinel’s operational risk assessments examine the investment operations to distinguish well-structured, well-managed control environments from those that may expose clients to unnecessary risks and costs.

HOW CLIENTS BENEFIT FROM OPERATIONAL RISK REVIEWS		
Identify red flags in order to avoid substantial financial loss caused by operational/organizational deficiencies	Communicate yellow flags in order to support improvement to investment operations, which potentially supports performance and reduces nonportfolio risk	Benchmark investment operations within portfolios and strategies

We benchmark operations and governance against what we consider to be safe and sound practices across a broad range of operating procedures, execution practices and internal controls.

PRE-ONSITE	ONSITE WORK	ASSESSMENT
BUILD KNOWLEDGE BASE	TRUST BUT VERIFY	DOCUMENTATION AND PERSPECTIVE
<ul style="list-style-type: none">• Define and continually update industry best and Mercer-defined safe and sound operating practices.• Issue detailed due diligence questionnaire prior to on site.• Study industry research.• Analyze questionnaire, leading to work paper prepopulation.• Conduct work program review.	<ul style="list-style-type: none">• Perform comprehensive on-site work program, typically covering a full day with a two-person team.• Complete behind-the-scenes, desk-side review and process confirmation with staff.• Observe “the life of a transaction” in practice and validate controls.• Conduct on-site at operations centers, including third parties and multiple locations.	<ul style="list-style-type: none">• Perform two levels of peer review and technical checking.• Assign ratings.• Provide critical feedback and verify on-site observations.• Validate ratings and opinions.• Issue detailed report.

OPERATIONAL RISK REPORT

In our operational risk reports, Mercer Sentinel assesses core factors within a firm. For the manager below, Mercer Sentinel identified specific functions or processes that meet (green), are below (yellow) or are far below (red) safe and sound practice.

FIRM STRATEGY RATING		REVIEW
CORE FACTOR	RATING	
Governance and organizational structure	Meets standards	Green
Human capital	Development required	Yellow
Fund structures	Development required	Yellow
Regulation, compliance and audit	Development required	Yellow
Risk control	Development required	Yellow
Transaction execution	Reservations	Red
Valuation and administration	Meets standards	Green
Technology	Meets standards	Green
Business continuity and disaster recovery	Meets standards	Green
Third-party relationships	Development required	Yellow

SAMPLE CORE TOPICS

- Governance structure and operating model
- Cybersecurity
- Cash movement controls and oversight
- Valuation
- Third-party supervision
- Fees and expense ratios
- Policies and procedures
- Automation
- Segregation of duties
- Regulatory reporting and adherence

INVESTMENT RISK MANAGEMENT AND GOVERNANCE CONSULTING

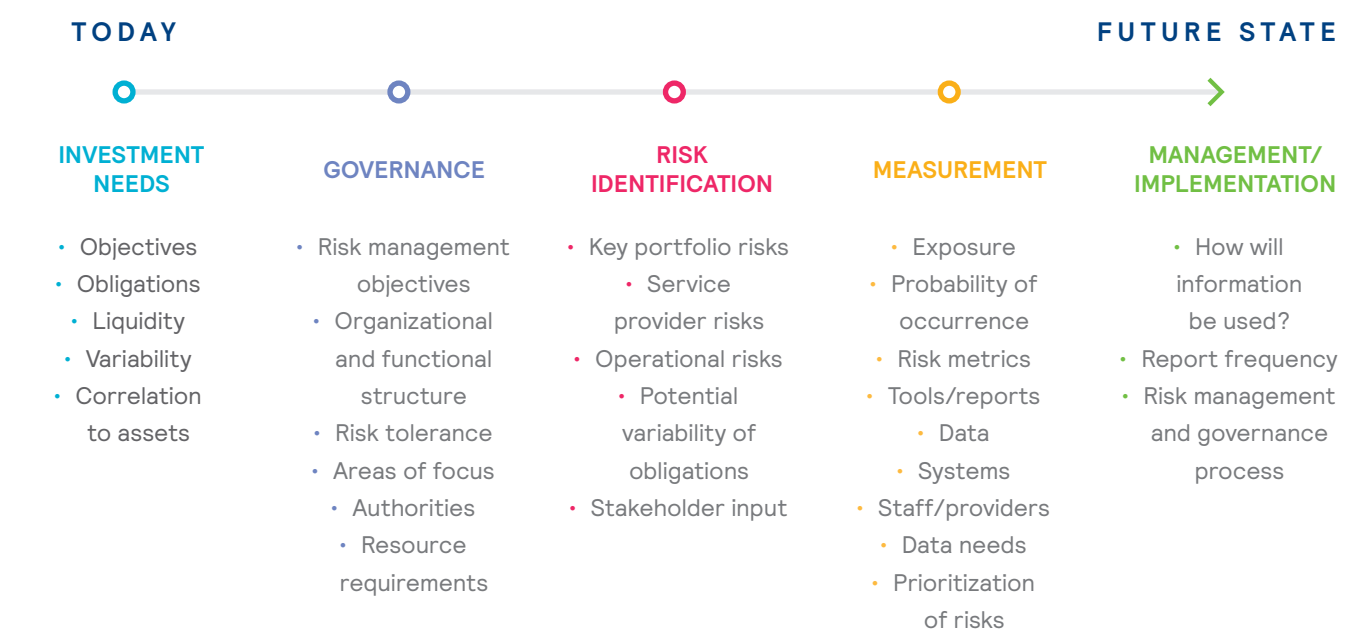
The Risk: Poor governance, risk management or fiduciary oversight materially impairing a fund’s ability to fulfill its mission and threatening longer-term viability

Mercer Sentinel helps clients define risk management objectives, operating structures and key functions/deliverables. This effort includes helping to define risk tolerances, risk management objectives and risk structures and processes as well as how risk information will be used within the organization.

We help organizations determine the tools, metrics and methodologies they use, as well as short- and long-term risk reporting objectives.

HOW CLIENTS BENEFIT FROM RISK MANAGEMENT AND GOVERNANCE REVIEWS

Identify governance and fiduciary oversight weaknesses to avoid substantial financial loss caused by operational/organizational deficiencies	Develop a roadmap and process for identifying risks and implementing a risk management program	Contribute to improving long-term-risk-adjusted returns
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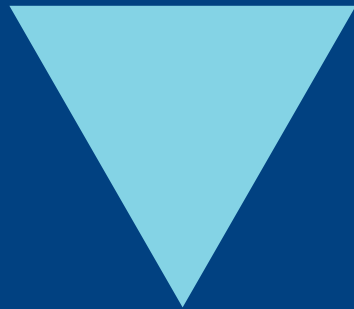
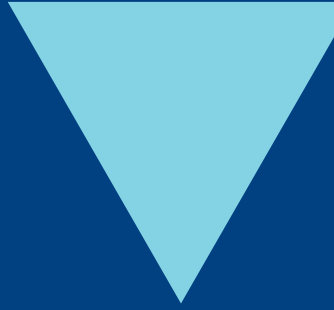
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