



Texas Municipal Retirement System Transition Management Review

October 2016



Presentation Contents and Objectives

Summary and Overview of TMRS Transition Management (TM) Program

- Transition Managers offer Execution / Exposure services within a disciplined and transparent framework for trading / risk management / performance reporting
- Details of 2013 RFP process resulting in selection of current bench of Transition Managers
- Summary of TMRS Transition Management Outcomes since Bench Inception in 2013

Transition Management Industry Review

New Approaches and Strategies

- Interim Management Services, Overlays, ETFs and Derivatives

Next Steps

- Consideration of adding / refreshing contracts with one or more additional Transition Manager(s) as current TM Bench of 2 (BlackRock / Citi) may reasonably be augmented by complementary firms
- Consideration of Alternative Approaches and Strategies

Texas Municipal Retirement System Summary and Overview of Transition Management Program



OVERVIEW

Transition Management & Transition Managers

Benefits of Transition Managers

- Transition Management involves the coordinated and managed movement and restructuring of assets from a “legacy” portfolio to a “target” portfolio
- Transitions occur due to: Shifts in asset allocation | Changes in implementation choices | Fund flows
- Objective is to reduce overall risks and costs in a transition
- Transitions may be complex and subject to a large number of risk factors
- Transition Managers may provide benefits through the management of investment, operational, and trading risk

TMRS Board Approved an RFP for Transition Managers (February 2013)

- RVK, Inc and TMRS Staff presented TM recommendations for Citi, BlackRock, and Russell in August 2013
- October 2013 – TMRS begins to utilize Transition Managers to assist with **Phase I** of the Equity Re-structuring Project’s pacing plan and portfolio diversification

TMRS TM Contract Status

- November 2013 – Citi contracted with TMRS as transition manager
- Contracts with BlackRock and Russell were initially deferred due to initial bid results and contracting capacity
- July 2015 – following significant negotiation, contract with BlackRock was signed
- Further negotiation on contract terms with Russell has to date proven unsuccessful

TMRS Investment Policy Statement Guidelines

General Transition Management Roles

- Decision on how to transition assets (transition manager, legacy manager, or target manager) is delegated to Executive Director and Chief Investment Officer with advice from Investment Consultant

Investment Policy Articulates:

- Transition Managers be a Registered Investment Advisor, contractually accept fiduciary responsibility, and to provide agency-only executions
- Transition Managers be engaged from a Board pre-approved pool of Transition Managers
- Post-transition reporting to the Board is required
- Periodic analysis and reporting to the Board on the quality/status of the pool of Transition Managers is required

TMRS History

Equity Restructuring Project for Diversification Benefits (2013-2015)

- 2013
 - **Phase I US All Cap Portfolio Funding December 2013:**
 - Funding All Cap managers Sasco and Epoch
 - Bids received from Citi, BlackRock, Northern Trust and Russell
- 2014
 - **Phase I Non-US Core Portfolio Funding August 2014**
 - Non-US Core managers Lazard and Wellington
 - Bids received from Citi, BlackRock, Northern Trust and Russell
 - **Phase II US Mid Cap Portfolio Funding November 2014**
 - Funding Mid-Cap Equity managers Champlain and The Boston Company
 - Bids received from Citi, BlackRock, Northern Trust and Russell¹
- 2015
 - **Phase II Emerging Markets & US Small Cap Portfolio Funding August 2015**
 - Emerging Market managers Acadian and William Blair
 - US Small Cap manager The Boston Company
 - Bids received from Citi and BlackRock²
 - **Phase II US Small Cap Portfolio Funding November 2015**
 - US Small Cap Manager Wellington Small Cap Growth
 - Bids received from Citi and BlackRock
 - **Phase III Non-US Small Cap Portfolio Funding November 2015**
 - Non-US International managers Wellington and Wasatch
 - Bids received from Citi and BlackRock
- 2016
 - **October Transition Management Review**

¹ Russell continued to be invited to bid on transition management, as of August 2016 TMRS has yet to finalize a contract with Russell. Furthermore, with Russell's organizational changes (sale to LSEG and further sale to private equity consortium), stability was a monitoring factor for RVK and Staff and, along with contract delays, this led to non-solicitation of bids from Russell in 2015 onwards.

² BlackRock Transition Manager Master Agreement was not finalized until July 2015.

TMRS History

Equity Restructuring Project (2013-2015)

KEY:
 Outside Range (less costly)
 Within Range
 Outside Range (more costly)

Transition Management History 2013-2015

RVK Memo Title	Trade Date (Period)	Amount Traded	Manager (Legacy)	Manager (Target)	Transition Manager	Expected Performance Range	Post-Trade Total Costs	RVK Assessment	TCA Assessment
All Cap Portfolio Funding (Phase I)	12/13/2013 (5 days)	\$196,950,700	NT Russell 3000	Epoch	Citi	\$551,404 +/- \$727,033	\$1,498,025	No Concerns Raised/Capable Performance/Continue to Use	No Concerns Raised
		\$196,950,700	NT Russell 3000	Sasco					
Non-US Core Portfolio Funding (Phase I)	08/14/2014 (10 days)	\$400,000,000	Cash	Lazard Developed Markets	Citi	\$1,327,261 +/- \$512,464	\$823,324	No Concerns Raised/Capable Performance/Continue to Use	No Concerns Raised
				Lazard Emerging Markets					
			ACWI ex US	Target Cash \$12M					
				Wellington					
Mid Cap Portfolio Funding (Phase II)	11/17/2014 (2 days)	\$200,034,586	NT Russell 3000	Champlain	Citi	\$582,445 +/- \$1,001,525	\$1,402,740	No Concerns Raised/Capable Performance/Continue to Use	No Concerns Raised
		\$200,034,586	NT Russell 3000	The Boston Company					
Emerging Markets & Small Cap Portfolio Funding (Phase II)	8/14/2015 (11 days)	\$175,000,000	MSCI ACWI ex US IMI	Acadian - EM	BlackRock	\$2,079,998 +/- \$3,941,565	(\$4,389,222)	No Concerns Raised/Capable Performance/Continue to Use with Additional Scrutiny on Teams and Operational Matters	No Concerns Raised
		\$175,000,000		William Blair - EM					
		\$245,000,000	NT Russell 3000 + Harrison St	The Boston Company					
Small Cap Portfolio Funding (Phase II)	11/4/2015 (2 days)	\$235,000,000	Russell 3000→R2000 ETF	Wellington Small Cap Growth	Citi	\$877,289 +/- \$888,395	\$741,897	No Concerns Raised/Capable Performance/Continue to Use	No Concerns Raised
International Equity Small Cap Portfolio Funding (Phase III)	11/30/2015 (11 days)	\$235,000,000	MSCI ACWI-ex-US-IMI→5-Regional ETFs	Wellington	Citi	\$7,001,617 +/- \$2,717,229	\$6,341,620	No Concerns Raised/Capable Performance/Continue to Use	No Concerns Raised
		\$235,000,000		Wasatch					

Transition Management Industry Overview



Transition Management Industry Review

- **Broad-based discussion of evolution of marketplace**
 - The Pros & Cons of competitive bidding processes
 - Optimal Transition Management Bench Size
- **Charts and Commentary**
 - League Tables of TMs by
 - Historical Exits
 - Year Started Offering TM Services
 - Staffing
 - Asset Class Specializations
 - Asset Class Volumes
 - Asset Class Range of Transition Size
- **Potential Complementary Providers to Existing TM Bench**
- **Alternative Approaches**
 - Interim Management Services
 - Specialized Asset Class TMs
 - Overlay Manager (Synthetic Rebalances)
 - Internal Transition Management Services

Bid Review and Solicitation Process

Pros and Cons of Competitive Bidding Process

Pros

- Potential reduction in commissions/explicit costs due to competition
- May identify options for trading strategies and risk management during restructuring
- Provides for a documented process that encourages discussion with and consideration of alternative providers for each restructuring event

Cons

- Preparing and soliciting bids (even from a contained pool of bidders) can create delay between decision point to transition portfolio(s) and the actual implementation of the transition event – such delays can create material differences in portfolio performance
- Additional time and resources are dedicated to preparing and reviewing bids
- Commission rates, and explicit costs in general, can represent a minor portion of overall costs although they are often the most visible and controllable costs
- Bidding often relies on estimates and market conditions that may not be present in the actual event results of selected TM and often require substantial qualitative overlay by Consultant and Staff (the reasonability of estimation process rather than the specific estimates)

While competitive bidding for TM assignments remains quite common, RVK notes that there are some meaningful challenges to the practice

Bid Review and Solicitation Process

Optimal Transition Management Bench Size

Optimal Size of Transition Management Benches can vary widely

- In RVK's experience, Transition Management relationships range from an evergreen relationship with one or more firms (historically quite commonly implemented using a custodial affiliate or a passive investment manager) to a formal transition management bench with multiple Transition Managers under master contract such as currently in place at TMRS
- Transition Management benches most often contain from 3-5+ firms, typically with different business models and differentiated strengths (by asset class, transition type, or otherwise)
- With significant instances of provider exits over recent years, there can also be significant business value and prudence to having multiple Transition Managers on an established bench to provide for continuity and stability within a pre-selected and vetted pool of TM providers

The Transition Management Industry is Diverse and Crowded – Focus is Key

- Within a universe of over a dozen transition managers, often providing very similar services and bearing similar messages, RVK believes that focus on large and established providers with revenue model transparency, deep staffing, business model sustainability, and areas of differentiated strength is critical
- This may either take the form of shorter lists of universally qualified bidders or designated bidders for specific asset categories / event types, e.g. a version of the following:
 - Transition Manager A for Liquidations
 - Transition Manager B for Interim Management and Exposure
 - Transition Manager C for US Small / Large Cap Equity Restructures
 - Transition Manager D for Global Equity Restructures
 - Transition Manager E for Global Fixed Income Restructures

Transition Manager Industry Review

Historical Provider Exits

Notable Exits in Recent History

- *Bank of America Merrill Lynch (team merged into BlackRock)*
- *Barclays*
- *BGI (merged into BlackRock)*
- *BNY-ConvergEx*
- *BNY-Mellon*
- *Credit Suisse*
- *Deutsche Bank*
- *Global Transitions (merged into Vertas, now defunct)*
- *Goldman Sachs*
- *JPMorgan*
- *Knight*
- *Lehman Brothers*
- *Mellon Transition Management*
- *Morgan Stanley*
- *UBS*

QUITE SIGNIFICANT CHANGE IN PAST 10 YEARS!!

Transition Manager Industry Review

Current Providers - Year Founded / Started Offering TM Services

Firm	Year Started Agency Transition Management
State Street	1979
Russell Investments	1980
BlackRock	1985
Abel Noser	1986
Northern Trust	1987
Pavillion Global Markets	1996
Citigroup	1998
Loop Capital Markets	2003
Fidelity Capital Markets	2008
Macquarie Capital Markets	2009
Penserra	2009
BTIG	2014
Cantor Fitzgerald	2015

Older Guard

Newer Entrants

RVK has generally reported information as provided by transition managers, While a review of general accuracy, completeness, and overall reasonability was performed, RVK is unable to independently audit and verify accuracy of the reported data.

Transition Manager Industry Review

Staffing

Firm (sorted by year started TM)	Count of Professionals Listed	Average of Total Years with Firm	Average of Total Years of Industry Experience	
State Street Global Mkts (1979)	38	16.8	9.3	Older Guard
Russell Investments (1980)	28	8.1	14.6	
Blackrock (1985)	20	6.5	12.9	
Abel Noser (1986)	9	7.2	17.6	
Northern Trust (1987)	20	11.9	18.5	
Pavillion Global Mkts (1996)	8	7.3	18.3	
Citigroup Global Mkts (1998)	16	5.0	9.6	
Loop Capital Mkts (2003)	26	6.2	18.5	Newer Entrants
Fidelity Capital Mkts (2008)	6	1.8	18.3	
Macquarie Capital Mkts (2009)	48	5.8	14.5	
Penserra (2009)	11	4.0	20.0	
BTIG (2014)	11	2.5	15.2	
Cantor Fitzgerald (2015)	10	2.7	20.1	

Some variability observed in reported staffing with >50% dedication. Some larger staff figures appear to include distributed trading and operations resources as well while others are purer project management resources.

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Transition Manager Industry Review

Asset Class Specializations (claimed)

Providers were asked to force rank their abilities across four major asset categories and all providers (except BlackRock) provided a rank.

Firm	Domestic Large Cap Equity	Domestic Small and Small/Mid Cap Equity	International Equity (Including Emerging Markets)	Domestic and International Fixed Income
Abel Noser	3	1	4	2
BlackRock	2.5	2.5	2.5	2.5
BTIG	2	1	3	4
Cantor Fitzgerald	3	1	4	2
Citigroup Global Mkts	3	2	1	4
Fidelity Capital Mkts	2	1	3	4
Loop Capital Mkts	1	3	2	4
Macquarie Capital Mkts	2	3	1	4
Northern Trust	1	4	3	2
Pavillion Global Mkts	3	2	1	4
Penserra	3	1	2	4
Russell Investments	4	3	1	2
State Street Global Mkts	1	3	2	4

Potential Pockets of Specialization (based on forced rank of “1”s):

- **Domestic Large Cap Equity** (Loop / Northern / State Street)
- **Domestic Small & Small/Mid Cap Equity** (Abel Noser / BTIG / Cantor / Fidelity / Penserra)
- **International Equity** (Citigroup / Macquarie / Pavillion / Russell)
- **Domestic & International Fixed Income** (No “1”s – BlackRock / Russell / Northern Trust / Cantor / Abel Noser)

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Transition Manager Industry Review

Asset Class Volumes

Transitions have been Equity dominated but the industry is seeing increasing usage of Transition Managers for Fixed Income events.

Historical volume based review favors longer-running providers.

Pockets of Specialization (based on Historical Volumes)

RVK has obtained market volume data for recent periods through an RFI process.

- **Global Fixed Income**

- Top 5: BlackRock / State Street / Russell / Citigroup / Cantor Fitzgerald
 - Top 5 volumes range from \$4.6 Billion - \$399 Billion
 - Overall universe volumes range from \$0-\$399 Billion

- **International Equity**

- Top 5: Russell / Citigroup / BlackRock / State Street / Northern Trust
 - Top 5 volumes range from \$72 Billion - \$1.1 Trillion
 - Overall universe volumes range from \$0-\$1.1 Trillion

- **US Equity**

- Russell / Citigroup / State Street / BlackRock / Northern Trust
 - Top 5 volumes range from \$113 Billion - \$1.38 Trillion
 - Overall universe volumes range from \$0-\$1.38 Trillion

- **US Fixed Income**

- Russell / Citigroup / BlackRock / State Street / Northern Trust
 - Top 5 volumes range from \$38 Billion - \$324 Billion
 - Overall universe volumes range from \$0-\$324 Billion

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Transition Manager Industry Review

Asset Class Range of Transition Size

Transitions (by number) have generally skewed towards relatively smaller events.

Historical volume based review favors long-running providers.

Consistent ranking of longest-running providers (2012-2015):

- Russell (Total Reported - 3,189 events / \$3.003 Trillion)
 - Russell Average Size ~\$942 Million / Russell ~51.3% >\$500 Million
- Citigroup (Total Reported - 4,427 events / \$1.869 Trillion)
 - Citigroup Average Size ~\$422 Million / Citigroup ~21.5% >\$500 Million
- BlackRock (Total Reported - 1,571 events / \$1.811 Trillion)
 - BlackRock has Largest Average Size at ~\$1.2 Billion / BlackRock ~45.1% >\$500 Million
- State Street (Total Reported - 2,323 events / \$1.286 Trillion)
 - State Street Average Size ~\$553 Million / State Street ~53.4% >\$500 Million
- Northern Trust (Total Reported - 1,038 events / \$0.249 Trillion)
 - Northern Trust Average Size at ~\$240 Million / Northern Trust ~11.7% > \$500 Million

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Transition Manager Industry Review

Potential Complementary Providers to Existing TM Bench

RVK remains constructive on the retention of BlackRock and Citi (TM providers under contract).

Although contracting has proven to be difficult with Russell, we believe the firm offers a strong product offering (albeit most appropriate for complex events where higher cost levels may be deemed reasonable).

Complementary Options to BlackRock / Citi (potentially excluding Russell) would be:

- **State Street**
 - RVK believes that the firm presents a potential value add to TMRS as the affiliate of the current custodian. Furthermore, State Street is among the more developed and capable providers of interim management. RVK notes that the firm has faced scrutiny over business practices in transition management (albeit limited to the EMEA region), but remains constructive on the depth of the team and resources.
- **Northern Trust**
 - RVK believes that the firm presents a potential value add to TMRS as the affiliate of the current provider of TMRS's passive index vehicles (which have been the funding source for many of the new mandates).

Exploring the addition of these firms to the existing bench could be a path forward.

Transition Manager Industry Review

Alternative Approaches

Interim Asset Management

- Some Transition Management firms offer services where they can take over interim fiduciary oversight of a terminated manager's portfolio of securities prior to identification of a replacement manager. Taken together with model-driven trading (incremental trims and adds to remove active portfolio skews), this can form the basis for effective cost- and risk-management. Interim management typically takes the form of portfolio oversight to a model-driven tracking error target for a period of 6 months or under and can represent a superior trading cost to risk reward trade-off than a roundtrip transition from an active portfolio to fully passive management and back.

Specialized Asset Class TMs

- In line with earlier comments on restructuring the bidding process to be more nimble, TMRS could obtain firm explicit cost quotes from providers (potentially refreshed annually) for specific mandates.
- A potential designated list of Transition Manager assignments could be:
 - Fixed Income Liquidations
 - Equity Liquidations
 - Interim Management and Exposure
 - US Small / Large Cap Equity Restructures
 - Global Equity Restructures
 - Global Fixed Income Restructures

Transition Manager Industry Review

Alternative Approaches, continued

Overlay Manager (Synthetic Rebalances)

- Although synthetic rebalancing would require further review and study, both from a policy and guidelines standpoint, the ability to shift exposures synthetically is an approach that RVK sees increasing comfort with on the part of institutional asset owners. The retention of an overlay manager for these purposes could facilitate on-going or specialized overlay management.

Internal Transition Management Services

- As TMRS continues to review internal asset management options, the potential to leverage internal trading resources for certain events (potentially focused more towards liquidations / trims rather than full project management exercises) could be sensible for discussion.

Next Steps



NEXT STEPS

- RVK recommends additional discussions with Russell.
- RVK recommends consideration of the establishment of additional TM relationships and would identify the following candidates for further discussion: Northern Trust and/or State Street.
- RVK recommends shifting TMRS's TM Program to include comprehensive annual review of all TM managers with results presented during the Equity Asset Class Review.
- RVK recommends further consideration of the modification of existing TM bidding process to include an annual review process and annual solicitation of an explicit commission rate for retention on an annual basis for defined transition types:
 - Fixed Income Liquidations
 - Equity Liquidations
 - Interim Management and Exposure
 - US Small / Large Cap Equity Restructures
 - Global Equity Restructures
 - Global Fixed Income Restructures
- RVK believes that while there is value in considering overlay services further, the earlier recommendations are most impactful and implementable in the near term.
- RVK is constructive on exploring the development of Internal Resources for Trading (internal transition management) as a future topic of discussion.

Appendix

Background on Transition Management



Transition Management Basics

What is Transition Management?

- The movement of assets from a “legacy” portfolio to a “target” portfolio utilizing strategies designed to reduce overall risks and costs.

When is Transition Management used?

- Shifts in Asset Allocation
- Changes in Investment Universe or Investment Style
- Changes in Investment Managers
- Fund Flows
- Change from commingled vehicle to separate account

Transition Management Basics

What a Transition Manager Does

- A transition manager develops a strategy to move assets from the legacy to the target portfolio that effectively manages the risks and the costs of the transition
- Specifically, the transition manager will:
 - Develop the appropriate “best practices” implementation strategy including in-kind transfers, internal and external crosses, agency and principal trades
 - Provide a detailed pre-trade cost estimate and time line of the transition process and obtain approval
 - Execute and monitor the transition and settlements on a real-time basis along with the custodian, client, etc.
 - Intervene in real time to minimize the fund’s exposure to adverse market impact and opportunity costs should events cause the markets to move negatively against the transition
 - Provide a detailed post trade report including analysis to quantify the success of the transition

Transition Management Basics

Transition Methodologies

- **Primary tools available to a transition manager:**
 - **Cash & In-kind transfers:** Transfers of securities and cash. Subject to fund and market restrictions
 - **Crossing: Crossing may not always be the best strategy but can form part of an optimal trading strategy**
 - **Internal Crossing:** Crossing undertaken between a fund manager's own clients (either with index funds or other transition clients). Index crossing is permitted and granted pursuant to a Department of Labor (DOL) exemption letter but such crossing may impose execution restrictions.
 - **External Crossing:** Crossing undertaken via a third-party crossing network. Often executed at low commission rates. Spread and Market impact costs can be reduced.
 - **Open Market Trading:** Trading with the market using conventional means – typically pay commission rates, taxes, spread costs, and incur impact costs.

The Risks of a Transition

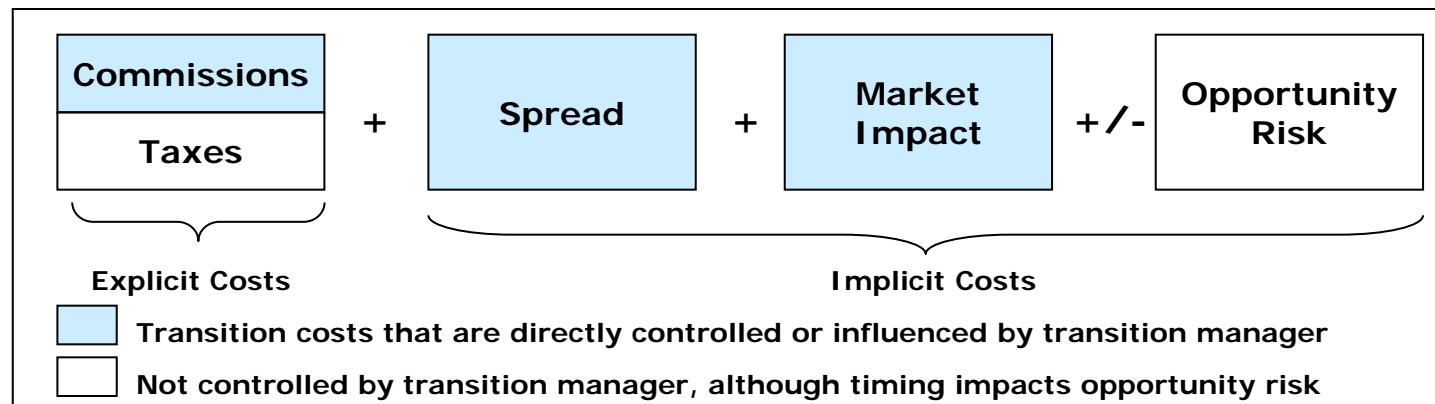
Transition risk is primarily composed of three components. The job of the transition manager is to mitigate these risks.

1. **Investment Risk**: the undesired under/over exposure to various securities, geographies, or asset classes during the transition.
 - Utilization of various hedges can reduce but not eliminate investment risk.
 - Optimization strategies such as position netting help reduce risk further.
2. **Operational Risk**: delays due to trade reconciliation errors, compliance failures, valuation errors, and system failures.
 - Full understanding of the back-office process in the geography and asset class involved in the transition can help minimize operational risk.
3. **Trading Risk**: negative impact on cost that occurs by virtue of market participation.
 - Factors to consider include correlation of assets being traded, position size relative to market liquidity, and asset volatility.

The Costs of a Transition

Explicit and Implicit Costs

- **Explicit Costs:** Directly measurable costs incurred as a result of security transactions. Represents the most visible, but least significant cost of a trade.
 - Commissions: typically paid on a cents per share basis in the US/Canada and in a % of value (basis points) in the global marketplace
 - SEC Fees in the US
 - Taxes/Stamp Duties in global markets including currency taxes
- **Implicit Costs:** Derived from the price performance achieved. Represents the least visible, but often the most significant costs of a trade.



Selection of Providers using a TM Bench

Client/Fund/Consultant Responsibilities

- **Develop the most appropriate implementation strategy (mandate transition timing; benefits of combining events; value added by transition provider versus time to select and engage)**
 - Review the holdings in the “legacy” and “target” portfolios to determine portfolio characteristics and impact the portfolio structure may have on implementing the transition.
- **Depending on the sensitivity of investments, consider whether the information offered with transition manager bids will include security level detail. Contracts may specify confidentiality clauses as well.**
 - Security level detail can be damaging if information leakage causes other traders to execute trading in a way structured to take advantage of potential market impacts.
- **Evaluate proposals according to selection criteria including bids based upon the pre-trade cost estimate of the proposed transition.**
 - Bidding transition managers will provide a cost estimate and timeline of the transition process including in-kind transfers, internal and external crosses, agency and principal trades.
- **Obtain approval of implementation strategy and final transition bid.**

Selection of Providers

Review of Cost & Risk Discovery Proposals/Bids

- Evaluating the responses in a comparative side by side manner allows the client to better identify the true potential costs of each bid.
- Expected Costs (Blue) matter, but ability to control range of outcomes (green) may be better indicate risk-control abilities. Both estimates matter and should be considered.

Costs		TM #1	TM #2	TM #3	TM #4
Explicit					
	Commissions	\$ 79,149.00	\$ 83,089.00	\$ 64,258.00	\$ 106,319.00
	Taxes	\$ 95,106.00	\$ 97,590.00	\$ 103,410.00	\$ 96,216.00
	F/X	\$ -	\$ 19,655.00	\$ 23,614.00	\$ -
	TOTAL EXPLICIT COSTS	\$ 174,255.00	\$ 200,334.00	\$ 191,282.00	\$ 202,535.00
Implicit					
	Bid/Ask	\$ 165,329.00	\$ 102,471.00	\$ 117,214.00	\$ 193,625.00
	Market Impact	\$ 160,895.00	\$ 191,426.00	\$ 263,819.00	\$ 185,721.00
	TOTAL IMPLICIT COSTS	\$ 326,224.00	\$ 293,897.00	\$ 381,033.00	\$ 379,346.00
	IMPLICIT + EXPLICIT COSTS	\$ 500,479.00	\$ 494,231.00	\$ 572,315.00	\$ 581,881.00
	Opportunity Costs (1 SD)	\$ 631,711.00	\$ 741,263.00	\$ 596,215.00	\$ 658,934.00
	TOTAL TRANSITION COSTS + 1SD	\$ (131,232.00)	\$ (247,032.00)	\$ (23,900.00)	\$ (77,053.00)
	TOTAL TRANSITION COSTS - 1SD	\$ 1,132,190.00	\$ 1,235,494.00	\$ 1,168,530.00	\$ 1,240,815.00
Trading Strategy					
	In-Kind Transfer	0%	1%	2%	1%
	Crossing	17%	40%	37%	21%
	Open Market	83%	59%	61%	78%

Expected Costs

Forecasted Range of Outcomes

Evaluating Transition Implementation

Post-Transition Evaluation

- At the conclusion of the transition, the Transition Manager will provide a post trade report that will include an analysis of transition results.
- Consultant and Staff will evaluate the post trade report to view the different methodologies used to implement the transition and the resulting actual costs.
 - Helps quantify the results of the transition and demonstrate the beneficial savings that resulted from this process versus an unmanaged buy/sell process.
 - Helps quantify the success of the transition versus a benchmark measure.
- Requiring an independent trade cost analytics report (paid for by the transition manager or by the fund) may add further clarity to results.

PORTLAND

CHICAGO

NEW YORK

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