

# Smooth PASSAGE

By Mark Keleher & James Slater

Transition management can reduce plan sponsors' trading costs and the high price of market impact. It's damage control when shifting between money managers.



**M**anaging costs is a priority for plan sponsors looking to reduce overhead in the face of poor equity market returns. The need for both cost containment and risk management has drawn many sponsors to look closely at a specialized form of trading known as transition management, which can reduce the costs associated with trading out of one portfolio of securities into another. Institutional investors can benefit from it when a change in investment managers becomes necessary, after a shift in asset allocation has been mandated or when plans are merged. Right now, business is brisk: Over US\$1 trillion worth of securities are transitioned annually on a global basis by professional transition managers.

Transitions may be relatively straightforward, such as shifting a single portfolio from the incumbent to the target portfolio, or more complex, such as a multi-country, multi-currency transition that spans both time zones and asset classes.

Not only does transition management reduce the direct costs of trading, it also controls the risks that can increase indirect trading costs. Such costs don't just include commissions and bid-offer spreads, but also the far more significant ones of market impact and lost opportunities. It's estimated that the average block-size trade costs about 1.13%. Commissions and bid-offer spreads make up only about 21% of the cost while market impact and opportunity costs make up the remaining 79% (these figures

ignore the additional costs associated with taxes and fees).

The components of transaction costs can be broken down as follows:

**Commissions:** Commissions can vary depending on the size of the trade as well as the country in which the security is registered. Commissions can be significant in emerging markets.

**Taxes:** Taxes vary according to the particular tax laws of the registering country. They can be as high as 50 basis points.

**Bid-Offer Spread:** The difference between the bid and offer prices of a market maker for a standard-size trade. The spread can vary according to the volatility and average trading volume of a security.

**Market Impact:** The additional price concession necessary to execute additional shares above the market maker's standard size. Although market impact is persistent (because a series of large orders will have a cumulative impact on price), breaking up a large order into smaller transactions placed over time can significantly lower the overall market impact of a trade.

**Opportunity Costs and Slippage:** Opportunity costs and slippage are associated with the delays in executing a transaction, either due to operational issues or in the hope of receiving a better price later. In transition management, the residual risk of a legacy portfolio to a target portfolio is the primary driver of opportunity costs.

There are two conflicting factors at work. The market

impact of a large trade can be reduced if it is completed over a longer period of time. However, extending the time to complete the transaction increases the residual risk exposure. Hedging the residual risk is critical at this point. If residual risk is not hedged, potential opportunity costs rise as time to completion increases.

### TOOLS OF TRANSITION MANAGEMENT

**Risk analysis and management**—Risk analysis and management are key to a successfully managed transition. By accurately modeling the risk profile of both the legacy and target portfolios, the transition manager can develop a detailed and disciplined trading program that effectively uses all available trading styles. By carefully executing the program, the manager can transition the portfolio at the minimum total cost to the plan sponsor. An important part of the execution strategy is to continually monitor and, when appropriate, eliminate specific and residual risks that may occur while trading the portfolio.

Market impact can be controlled by extending the trading horizon, taking advantage of crossing opportunities when available, and sourcing liquidity in the marketplace. Typically, a combination of these methods is used during a transition to reduce the total market impact of a portfolio.

It is important to manage the residual risk between the legacy portfolio and the target portfolio to reduce opportunity costs. Often it is more advantageous to absorb market impact than to bear the opportunity costs associated with a high level of residual risk.

Futures may be used to equitize cash balances to ensure continuous market/currency exposure or to hedge risk.

Here's an example of the benefit of hedging residual

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risk: a plan wants to shift from a U.S. benchmarked portfolio of 70% Standard & Poor's (S&P) and 30% treasuries to 100% EAFE allocation. S&P futures and treasury futures can be shorted against the physical portfolio while currency forwards and a basket of international equity futures designed to track an EAFE benchmark can be purchased simultaneously.

As a result, the residual risk of the hedged portfolio to the benchmark portfolio is substantially less than that of the un-hedged portfolio to the new benchmark. The reduction of residual risk will then allow the transition manager to trade carefully, control the risks of any potential slippage and limit market impact.

### TYPES OF TRADING

**In-Kind Transfers:** Instead of liquidating a portfolio wholesale and then beginning the process of constructing a new one, the legacy portfolio and the target portfolio are first examined to determine which assets can be transferred in kind. This service is provided free of charge to the plan sponsor.

**Crossing:** In certain cases it is possible to cross-trade

## AN EXAMPLE OF THE POTENTIAL SAVINGS FROM TRANSITION MANAGEMENT:

The following assumes a client is shifting from a \$75 million portfolio invested in cash and U.S. equities to a global equity portfolio. The traditional brokerage solution assumes that the legacy manager cashes out the old portfolio and the target portfolio manager builds the new portfolio from scratch, using only the open market for executions.

The transition manager is able to save on commissions in several areas. First, in-kind transactions and internal crosses are commission-free. Secondly, the average commission rate charged by a transition manager is usually lower than that paid by a traditional money manager (typically 2 to 3 cents per share versus 5 to 6 cents per share).

The transition manager also saves by reducing the effect of the bid-offer spread and market impact by using in-kinds, as well as internal and external crossing. In this example, only 19% of the portfolio is actually traded on the open market.

Using the various sources of liquidity available, the transition manager is able to reduce the expected cost of trading by close to 80%. It is likely the transition manager would also put a series of currency and futures hedges in place to control any potential slippage between the legacy and target portfolios to ensure that opportunity costs did not dominate the savings achieved through sourcing liquidity.

### PORTFOLIO

Cash Contribution	\$25,393,806
U.S. Equity Sell Program	\$49,991,487
Global Buy Program	\$75,385,293

### EXECUTION METHOD

	Using Traditional Brokerage	Using Transition Management
In-kinds	0%	25%
Internal Crossing	0%	17%
External Crossing	0%	39%
Open Market	100%	19%
	<b>100%</b>	<b>100%</b>

### ESTIMATED COSTS

	Using Traditional Brokerage	Using Transition Management	Savings
Commissions	\$218,925	\$52,921	\$166,004
Bid/Offer/Spread	\$209,811	\$37,532	\$172,279
Market Impact	\$169,659	\$28,788	\$140,871

<b>TOTAL</b>	<b>\$598,395</b>	<b>\$119,241</b>	<b>\$479,154</b>
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with other customers. This reduces the expected market impact of a trade.

**Agency Trading:** Certain trades will be executed with a broker acting as an intermediary to take advantage of existing liquidity in the market.

**Principal Trading:** Some trades will be executed directly with a market maker who commits capital to complete the trade.

**Hedging:** Various hedging instruments such as futures, Exchange Traded Funds, options and swaps can be used to limit undesirable or unnecessary exposure to risk.

**Liquidity Transference:** Bundling a group of securities together often makes their risk similar to that of a more liquid instrument. By effecting the trade in the more liquid instrument and then swapping the portfolio for it, incremental cost savings can be gained.

## THE PROCESS

**Pre-Trade**—The first step is reviewing the trade-off between market impact and opportunity costs with the client. Once the client's needs and goals for timing, risk tolerance and benchmarks have been identified, the next step is to identify the assets in the legacy portfolio that the new manager wishes to carry over. In-kind assets are transferred to a holding account, where they are monitored for corporate actions and dividends and interest throughout the duration of the transition.

A pre-trade analysis is performed on the remainder of the portfolio. This analysis allows the transition manager to develop a trade program which meets the client's goals for the transition. The various sources of liquidity for the transition are identified at this point, as are securities with liquidity problems that may need to be handled separately.

**Trading**—The trading program should incorporate internal crossing, external crossing and open market trading. The goal is to minimize the total cost of the transition for the plan sponsor while considering the particular constraints of timing, benchmark and residual risk.

Daily progress reports are often provided to the client on executed values, remaining assets in the portfolio and the relative performance of the pre-trade, actual and benchmark portfolios.

**Post-Trade**—Trade executions are reviewed against the agreed-upon benchmark. Assets are then transitioned to the new managers. A final analysis detailing the trading styles used in the transition, actual versus expected costs and a final detailed execution report are reviewed with the client.

## BENCHMARKING A TRANSITION

Since each transition is different, no one benchmark should be used to measure all of them. Ideally, the transition manager will supply the summary statistics for several benchmarks so the transition can be examined from as many angles as possible.

**Implementation Shortfall**—The idea behind implementation shortfall is to measure the actual transition account

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against a costless swap out of the old portfolio into a new one. The actual transition account will have all commissions, bid/offer, market impact and slippage costs embedded in its performance numbers whereas the paper portfolio won't bear any of the costs. Relative performance between the portfolios is defined as the implementation shortfall.

**Volume Weighted Average Price (VWAP)**—This measures the transition against the average price weighted by volume throughout the day. VWAP is more useful for liquid stocks when the transition represents only a small portion of the day's trading volume. If the volume traded in the transition is large and comprises a large part of the total volume traded, this measure is less useful. This is because the transition volume becomes the benchmark and cannot be compared against itself.

**Close on Trade Date**—Although this measure is used often, its use can cause the transition manager to place the majority of trades late in the day near the market close to eliminate any potential benchmark deviation. As a result, full market impact is borne by the plan.

**Total Crossing Rates**—Another frequently used measurement is total percentage crossed (either internally or externally). While it's true that shares crossed don't bear the same market impact costs that open market trades do, the potential slippage caused by a poorly administered crossing program can quickly cancel out any savings in market impact. This measure is best used in conjunction with implementation shortfall benchmarks.

Transition managers are specialists in sourcing liquidity and controlling the risks a portfolio may be exposed to during a large-scale asset allocation shift or investment manager change. By efficiently sourcing liquidity, transition managers can lower the expected cost of trading. Through hedging and risk control, they can also make that predicted cost more certain.

Shifting between money managers can be an expensive proposition for any plan and care must be taken to limit the potential costs. Each transition is unique and should be approached individually, with a separate strategy developed and the appropriate benchmarks identified in advance of the transition.

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