

IN TRANSITION

Topics in Transition Management



Mellon Transition Management Services

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DEMYSTIFYING DERIVATIVES:

*When It Comes to Transitions,
What Are Your Options and
What Do the Futures Hold?*

Controversy sells papers (if not quarterly newsletters), and every good plot has a conflict at its center. In last quarter's *In Transition*, we examined the pros and cons of crossing when completing transition management assignments. The role of crossing in transition management is certainly a contentious issue and one that the transition management industry continues to debate.

When it comes to hot-button topics, however, there may be no better silver bullet/scapegoat than the big D— derivatives. On the one hand no less a financial authority than “The Maestro,” former Federal Reserve chief Alan Greenspan, cited, “the growing array of derivatives and the related application of more-sophisticated methods for measuring and managing risks had been key factors underlying the remarkable resilience of the banking system.”¹

Firmly entrenched in the other camp, is “the Oracle of Omaha,” Warren Buffet, who views derivatives, “as time bombs, both for the parties that deal in them and the economic system.” He condemns derivatives as “financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.”²

Panacea or pariah? What are derivatives, and what, if any, role should they play with respect to transition management?

DEFINITION

“A derivative instrument can be generally defined as a private contract whose value derives from some underlying asset price, reference rate or index — such as a stock, bond, currency, or a commodity. In addition, the contract must also specify a principal, or notional amount, which is defined in terms of currency, shares, bushels, or some other unit. Movements in the value of the derivative are obtained as a function of the notional and the underlying price or index.

In contrast with securities, such as stocks and bonds, which are issued to raise capital, derivatives are contracts, or private agreements between two parties. Thus, the sum of gains and losses on derivative contracts must be zero; for any gain made by one party, the other party must have suffered a loss of equal magnitude.”³

Transition management is occasionally regarded as a one-dimensional cost-savings initiative — a belt-tightening tool for budget-conscious investors concerned that returns will be lean going forward. Viewed this way, transition management is sometimes mistaken for a commodity where the lower the price, the better. Institutional investors, and indeed some transition managers, have historically been fixated on reducing trading costs by maximizing cross-trading or minimizing commissions. As we argued in last quarter's publication, this may be a “penny-wise, but pound-foolish” approach. This is because true transition management is fundamentally a short-term risk management exercise. Only through sound risk-management principles can total transition costs be managed.

IN THIS ISSUE...

DEMYSTIFYING DERIVATIVES

IN OUR NEXT ISSUE...

TRANSITION TIMING

Broadly speaking, the transition manager seeks to make a given shift in an asset portfolio as cost-effective as possible. If the goal of the transition is to track a target set of investments as quickly and closely as possible,⁴ the use of derivatives should be considered. A basic example may better illustrate this thesis. Here we examine a hypothetical scenario where a UK pension scheme decides today to exchange a pan-European equity portfolio for a German equity portfolio but due to operational reasons will be unable to trade until tomorrow.

SCENARIO 1 – NO HEDGE

Sell pan-European Equity Portfolio Beginning at European Market Open	€	100 million	
Buy German Equity Portfolio Beginning at European Market Open			
Cost/Risk Analysis:			
Annualized Tracking (Eurostoxx to DAX)		9.63%	
Tracking Risk for one-day trade		+/- 43 bps	
Market Impact of Selling pan-European equity Portfolio		4 bps	
Market Impact of Purchasing German Equity Portfolio		4 bps	
Total Commissions		14 bps	
Total Expected Trading Costs (Implicit and Explicit)		22 bps	
Opportunity Risk Range		+/- 43 bps	
Expected Implementation Shortfall Range		-65 to 21 bps	
Total Expected Trading Costs (Implicit and Explicit)	€	(220,000)	
One Standard Deviation Expected Implementation Shortfall Range	€	(650,000)	to € 210,000

SCENARIO 2 – HEDGE ON T-1

Sell Eurostoxx Futures on T-1 Close	€	100 million	
Buy DAX Futures on T-1 Close			
Unwind both DAX and Eurostoxx Futures and Trade Physicals on T			
Cost/Risk Analysis			
Annualized Tracking (Eurostoxx to DAX)		9.63	
Basis Risk of hedge to index portfolios		+/- 2 bps	
Market Impact of Selling pan-European Equity Portfolio		4 bps	
Market Impact of Purchasing German Equity Portfolio		4 bps	
Total Commissions		14 bps	
Futures Commissions and Impact (Round Trip)		6 bps	
Total Expected Trading Costs (Implicit and Explicit)		28 bps	
Opportunity Risk Range		+/- 2 bps	
Expected Implementation Shortfall Range		-30 to -26 bps	
Total Expected Trading Costs (Implicit and Explicit)	€	(280,000)	
One Standard Deviation Expected Implementation Shortfall Range	€	(300,000)	to € (260,000)

In this manufactured example, the use of futures and currency forwards was clearly advantageous in mitigating the risk of the asset allocation shift. Trading costs are only a small component of the asset value at risk. Controlling the tracking error between the incumbent set of assets and the desired set is of paramount importance. In this instance, through the use of futures, managing this risk is easy and inexpensive. The real world, however, seems to have a habit of presenting circumstances which are far less convenient.

The use of derivatives across transition assignments introduces another dimension of risk to evaluate. Sometimes the risks, or operational complexities, may outweigh any advantages of using derivatives. Clearly, the transition manager does not want to use such instruments merely because they sound sophisticated.

¹"Risk Transfer and Financial Stability," Remarks by Chairman Alan Greenspan To the Federal Reserve Bank of Chicago's Forty-first Annual Conference on Bank Structure, Chicago, Illinois (via satellite), May 5, 2005

²2002 Berkshire Hathaway annual report including the full text of the Chairman's Letter with the excerpted section available at: <http://www.berkshirehathaway.com/2002ar/impnote02.html>

As in all things related to transition management, a fundamental cost-benefit analysis must be conducted. In some cases, no appropriate hedge vehicle will be available.

In transitions involving a manager swap where an investor moves from manager A to manager B, a free hedge exists. If managers A and B both hold pan-European equity portfolios, the legacy portfolio hedges the target portfolio. As with all hedges, it is critical to consider

basis risk. Typically, in a manager swap of this type, daily tracking error between manager A and B may exceed 50 basis points (bp) which would generally not be considered an effective hedge. But when the alternative is considered—liquidating one manager to subsequently fund the other—this tracking error skyrockets to over 150 bp. Trading both portfolios simultaneously is clearly a more risk-controlled approach. In a case like this, could derivatives hedge away that remaining 50 bp of tracking error between these two active portfolios? It's hard to imagine a situation in which they could because while the sell portfolio doesn't perfectly hedge the buy portfolio, neither do any listed derivative products which are all based on passive indices.

The following example illustrates a case where the basis risk is

much more tolerable but operational issues make the use of derivatives unpalatable.

In this case, a Foundation is moving from one MSCI EAFE mutual fund to another. In-kinds are not possible, and given the fact that the other fund participants bear all trading costs, the Foundation may have a free lunch when it comes to trading. Nevertheless, the Foundation does have an exposure problem because they'll receive NAV on one day and not get back into EAFE until the NAV on the following day. In this instance, they will be exposed to one day's worth of EAFE volatility vs. cash which is almost 100 bp. A synthetic EAFE futures hedge⁵ with the appropriate currency forwards in place would nearly eliminate this funding mis-match.

³Jorion, Philippe; *Financial Risk Manager Handbook*; pp 105-6; John Wiley & Sons, Inc.; 2003

⁴See *In Transition* "Before & After — Did Your Transition Have a Happy Ending?"; Mellon Transition Management Services; Summer 2005

⁵While the CME launched an MSCI EAFE "E-mini" contract earlier this year, the jury is still out as to whether sufficient liquidity will materialize in this contract to make it a valued risk-management tool.

BACKGROUND

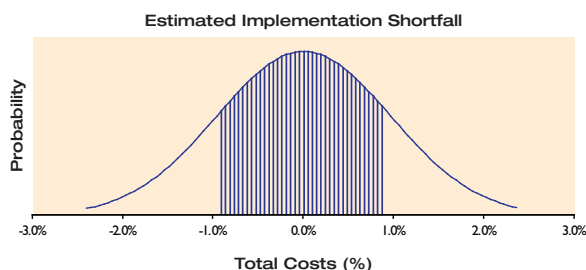
At the request of XYZ Foundation, MTMS evaluated a one-day MSCI EAFE overlay of cash. The value of the cash that will be hedged is \$25.0 million. The estimated costs for a one-day futures/currency forwards hedge is \$33,000 (13 bps), of which futures commissions are \$3,600, market impact is \$9,700, spreads are \$9,700 and the MTMS fee is \$10,000. MTMS estimates this overlay would reduce the daily tracking error versus EAFE to approximately +/- 6 bps.

MANAGER ALLOCATION

Manager/Portfolio	Asset Class	LEGACY		TARGET	
		Asset Size (MM's)	%	Asset Size (MM's)	%
Legacy	Cash	25.0	100.0%	-	0.0%
Target	EAFE	-	0.0%	25.0	100.0%
Total		\$25.0	100.0%	\$25.0	100.0%

EAFE v. Cash (Active Risk Breakdown)

Estimated Annualized Active Risk	15.27%
Estimated Opportunity Risk	+/- 0.96%
Estimated Daily Risk Range	-0.96% to 0.96%



The Foundation faces two alternatives: not hedge but bear one day’s risk (zero cost, 96bps at risk) or pay hedge costs (approximately 13bp, with almost zero risk) and sleep soundly. Note that the EAFE risk is not completely eliminated due to rounding differences (the hedge itself has a tracking error to EAFE), but +/- 6bps is generally preferred to +/- 96 when costs are reasonable. On paper the risk/reward trade-off presented under the hedged scenario may look like a no-brainer. Why not pay 13 bps for a little peace of mind? For clients with transition management agreements in place and futures accounts open, it may be a straightforward decision. Clients lacking such documentation, however, must also factor in the potential costs of delay involved in clearing these logistical hurdles.

Most of what we’ve described here refers to “listed” or “exchange-traded” derivatives. While the futures market is generally quite liquid, it is dwarfed in comparison to the so-called “over-the-counter” or “OTC” derivatives market. To return to our introduction, it is primarily the massive OTC derivatives market that has earned the respect or raised the ire of Messrs. Greenspan and Buffet.

Typically, conventional transitions have had little use for OTC derivatives other than currency forwards. OTC derivatives are, by definition, highly customized contracts structured to achieve a basic investment or risk management objective over a specified horizon. Because most asset transitions occur over a narrow window, OTC derivatives are generally unsuitable in managing transition risks. On the margins, however, transition managers may be able to employ OTC derivatives in extremely creative ways to address specific investor challenges.

OTHER ISSUES TO CONSIDER WITH DERIVATIVES AS PART OF A TRANSITION PROGRAM

Leverage– transition managers must take care not to “lever up” a client’s exposure when using derivatives during a transition. If the timing of putting derivative positions on and taking them off is not carefully managed, the client risks unintended exposures to volatile asset classes. This is true in a transition even when derivatives aren’t involved. In the pan-European manager swap described above, we mentioned how the sell portfolio hedges the buy portfolio. Trading the sell side and buy side together is the risk-controlled approach to getting from A to B. But if the transition manager— for whatever reason— bought the target portfolio on the open and sold the legacy portfolio on the close, the client would effectively be leveraged to pan-European equity for an entire trading session. This should never happen on a portfolio basis, but a transition manager must take care to prevent it from occurring on a sector or country basis as well.

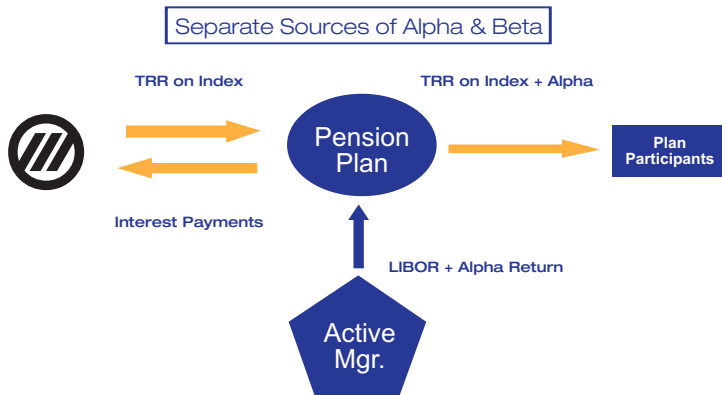
Cash flows associated with margin– one of the neat financing features of derivatives can also be a double-edged sword for those uninitiated in handling margin requirements. With futures, investors who take a long position in a contract don’t have to pay for it outright. Instead, they need only post an initial margin which runs in the neighborhood of 5-6% of the notional value of the position. As prices move, the contracts are marked to market which may require the investor to make a payment to settle an adverse price fluctuation— the dreaded margin call. These daily cash flows can become particularly onerous for hedges that have longer horizons. Over long horizons, the transition manager must also evaluate the costs of rolling derivative contracts that expire on a quarterly basis.

Are ETFs derivatives? The use of exchanged-traded funds has grown wildly over the past 5 years, and it seems like a new benchmark gets rolled out each month. While transition managers readily consider the use of ETFs to manage risk during transitions, trading costs for these are generally much higher than for futures and contracts must be purchased outright which may eliminate the financing advantage that futures contracts offer.

Beyond Plain-Vanilla Transitions

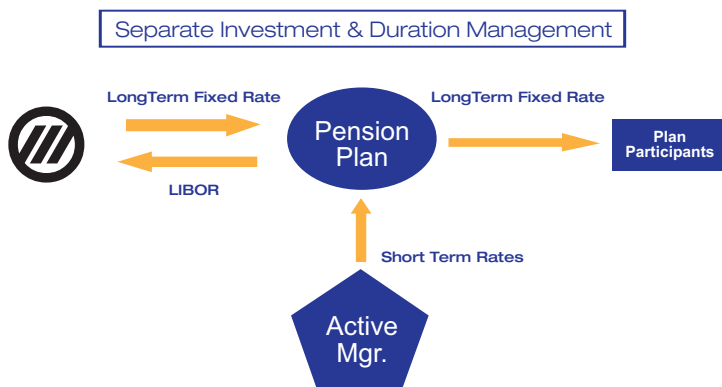
Transition managers are accustomed to operating on someone else's terms. Typically, the transition manager doesn't select the client's portfolio. Instead, he or she determines the most efficient way to implement it. For this reason, expert transition managers are positioned to be extremely flexible so that they can quickly accommodate changes to transition strategies. This adaptability makes transition managers well-suited to facilitate other investor challenges like the use of swaps to generate unfunded beta, to extend duration or to hedge plan assets. Each assignment takes a similar approach as illustrated below:

GENERATING EFFICIENT, UNFUNDED BETA



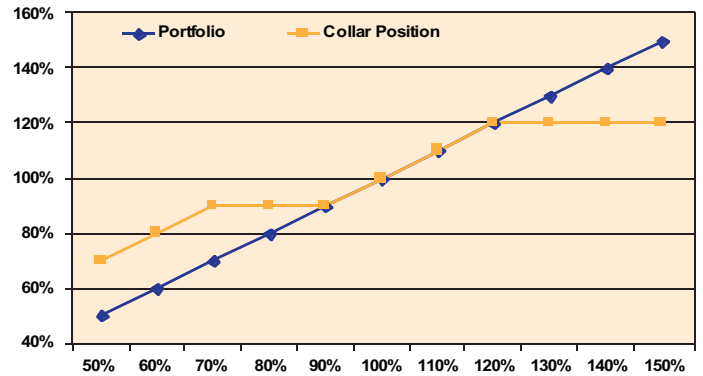
In the above example, a plan receives its beta exposure through a total return swap allowing it to free up capital which can be deployed to alpha-generating active managers. In the below example, the plan implements liability-driven investing through the swaps market.

EXTENDED DURATION: Diversify Credit and Liquidity Risks



In this final example, a transition manager facilitates a hedge designed to mute short-term market volatility by compressing returns toward longer term averages.

HEDGE THE ASSETS?



- A popular equity portfolio hedge is the put spread or stepped collar.
- Investors trade potential above average expected returns for protection against below average returns.

Whether used tactically as part of a transition program or strategically to implement big-picture asset allocation decisions, derivatives are an indispensable arrow in the quiver for transition managers. But investors must take care to remember: derivatives are like electricity—used correctly, they can make our lives easier; used incorrectly, they can be lethal.

MTMS offers global transition management services designed to assist clients rebalance asset allocations, enter new investment strategies, or liquidate existing portfolios. Mellon has provided transition services to clients since 1983. Headquartered in San Francisco and with a global presence, MTMS offers a proven process designed to mitigate operational risks, lower transaction costs and reduce the administrative burden for client sponsors.

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