The Six-Percent Solution

[An Asset Allocation Primer from 4Q 2001 *Commentary*]

An expanded discussion of this topic was delivered in several speeches, available in PDF titled **6% Real or Bust?**

Ecclesiastical View

This quarter's *Commentary* focuses on a topic discussed frequently if not excessively in past editions: asset allocation, i.e., what types of assets endowed charities should hold and in what proportions. By design, the musings that follow are mostly unoriginal. They're unoriginal because our ongoing review of the growing literature on asset allocation confirms what the Old Testament teaches about human affairs: "There is nothing new under the sun." *Ecclesiastes 1:9*. This doesn't mean that tired topics don't merit revisiting. As the German poet Goethe (1749-1832) observed, "Everything has been thought of before. The problem is to think of it again." Mindful as they are that some members of TIFF's board (including this writer) spend more time fretting about asset allocation than self-absorbed tennis star Anna Kournikova spends fretting about her looks, fiduciaries frequently ask TIFF to share its "best thinking" on this topic. Your editor is pleased to oblige — again, a two-part monograph on asset allocation having been published in these pages in 1999 (Part I on March 31, Part II on June 30).

Essential Fact

Given that the aforementioned monograph (a sleep-inducing 15,000 words) constitutes but a small fraction of the thoughts on asset allocation that TIFF has published since its founding (see the Education and Research section of our Website), it should have been easy to produce the primer you're now reading. Alas, this writer had more difficulty crafting it than he did producing its heftier forebears, the self-issued license to plagiarize such works notwithstanding. Why? Because asset allocation, like parenting, is such a universal and important challenge that many laypersons engaged in it assume that "experts" have reduced it to an exact science. In fact, it's nothing of the sort, as even a cursory review of evolving asset allocation theory and practice confirms. Many fiduciaries don't recognize this essential fact, forcing those of us who seek to help them fashion sensible policies to spend lots of time debunking the view that there is either an ideal asset mix for all endowed charities or an unarguably correct method for identifying sound institutional-specific mixes. There isn't, and never will be, capital markets being not natural constructs whose behavior is reliably described by fixed formulae (as in E = mc2) but human constructs prone to change materially and unexpectedly at precisely those moments in time when market participants think they've got everything figured out. The absence of unarguably correct methods for allocating assets notwithstanding, there **are** unarguably **incorrect** methods for doing so — methods that, like modern notions of parenting (or schooling), tend to exalt pseudo-scientific precepts over common sense. Part I of the aforementioned monograph on asset allocation (which we encourage all fiduciaries engaged in investment policy-making to review) critiques such methods in

detail. The paragraphs that follow synopsize this critique, as a means of clearing the decks for the simple but hopefully not simplistic policy prescriptions with which this primer concludes.

Please to Remember

In this writer's view, the 10 most important things for fiduciaries engaged in asset allocation to keep in mind are:

1. **Mimicry Decried.** There's no such thing as an "ideal" asset mix or policy portfolio, even for endowed charities with identical spending rules. The true test of the appropriateness of a given mix for a given charity is whether it will produce the maximum return for whatever level of risk the institution's trustees are willing to bear. But few if any trustee groups can gauge accurately their tolerance for poor results until those results actually roll in.
2. **Conservatism Defined.** Most endowed charities pursue investment policies that are best described as conventional rather than conservative, the latter defined literally as conducive to the maintenance of endowment purchasing power in the face of reasonable spending (e.g., 6% per annum — 5% for programs plus 1% for investment-related expenses). Conventional policies differ from conservative policies because comfort and expected return are inversely related. (See "Changing Fashions" on back cover.) The more comfortable an asset class or investment strategy becomes, the lower its prospective returns get pushed, often into negative territory. Witness venture capital circa 1999, Japanese stocks circa 1989, energy-related assets circa 1979, small cap US stocks circa 1969, long-term Treasuries circa 1959, etc., ad nauseam.
3. **Myopia Defended.** Although institutions are accused of being hopelessly myopic in their decisionmaking, especially with respect to manager selection, they're actually too far-sighted in other respects, especially when investing in "alternative assets" (defined unhelpfully but most commonly as anything other than publicly traded US stocks or bonds). The basic problem is that people tend to forget that the current price of an asset is always more important than historical averages. Indeed, studies extolling the virtues of specific "alternative assets" have a nasty tendency of appearing close to secular peaks in the returns on such investments. This is one reason why, on average and over time, most institutions have earned far less than they've expected to earn from "alternative assets."
4. **Colloquialisms Deflated**. "The beginning of wisdom," Socrates observed, "is the definition of terms." Many institutions employ policy portfolios comprising "asset classes" that aren't worthy of the name. The most common offenders: "hedge funds" and "alternative assets." To merit treatment as an "asset class" by endowed charities, an asset type or strategy must (a) embody a distinct, homogenous, and consistently conspicuous set of return "drivers" and risks and (b) be sufficiently scalable (i.e., susceptible of absorbing meaningful inflows without undermining its capacity to generate competitive risk-adjusted returns to tax-exempt investors). Grouping such disparate strategies as fixed income arbitrage, distressed debt, and (heaven forfend) macro investing into a segment labeled "hedge funds" is unwise. Lumping "hedge funds" with such "non-traditional" but potentially non-correlated strategies as venture capital or emerging markets into a segment labeled "alternative assets" is even worse. When determining how best to parse

their ever-expanding universe of investment choices, fiduciaries should focus rigorously on how each asset type or strategy under consideration will perform under worst case conditions, including a major inflation or deflation. Their rigorous use of this test is one reason that cutting-edge investors are increasingly replacing separate allocations to US and foreign stocks with a unified allocation to global equities (see exhibits below). Global stock markets are increasingly correlated under extreme conditions.

5. **Consistency Demanded**. Most institutional investment programs are logically inconsistent in at least one important sense: the targeted weights for each asset class typically are based on the indexed or passive return that each asset class is expected to produce, but the bulk of money invested in each asset class is actively managed. For this and other reasons discussed in TIFF's 1Q 1999 Commentary, computer-based asset allocation models tend to be highly flawed: they favor unduly asset classes and strategies whose superior risk-adjusted expected returns necessarily ignore the fact that big future inflows into a given investment niche will reduce its expected returns. Consider the illogic of a model indicating that the state of California pension fund's allocation of 15% of its $140 billion in assets to private equity will produce the same percentage return as a charity's allocation of 15% of its $1 billion endowment to the same niche. To combat such illogic, the hoped-for returns from size-constrained investment niches (including but not limited to private equity and absolute return) must be adjusted to reflect the actual dollars that would be allocated to them pursuant to any "model" portfolios being considered. These niches merit such special handling because (a) they cannot be accessed on an indexed or passive basis and (b) individual manager results within them tend to be distressingly dispersed, i.e., you're often better off shunning such niches altogether than accessing them via second-rate managers.

6. **Rebalancing Deified**. In practice, few if any investors are both able and willing to do what's needed to actually realize the returns that "efficient" asset mixes theoretically produce. "Efficient" asset mixes presuppose rebalancing moves that are (a) uncomfortably contrarian and (b) difficult if not impossible to implement with respect to illiquid assets. That said, most institutions could enhance their long-term returns by adopting more sensible "rebalancing" disciplines, even if the application of such rules is limited primarily to the marketable portions of their portfolios.

7. **Prolixity Deplored**. The utility of asset allocation guidelines is inversely related to their prolixity. Excess verbiage is not only off-putting to well-intentioned users (e.g., potential donors), it often masks a board's failure to reach informed consensus on important policy tradeoffs. The best guidelines comprise: (1) quantified return expectations and ranges (min, norm, max) for permissible asset classes and subclasses and (2) a succinct rationale for why each class or subclass is included in the policy mix. An illustrative set of guidelines (representing this writer's current best thinking for an endowment with access to top-tier managers in all markets) appears on the back cover.

8. **Alchemy Denied**. The policy mix outlined on the back cover deliberately excludes guesstimates of its inherent volatility (absolute or relative to competing alternatives). Why discount the alchemical benefits of combining non-correlated assets? Two reasons: first, correlations tend to soar under worst case conditions; second, liquidity and behavioral constraints would make the suggested portfolio's risk-adjusted returns unrealistically attractive relative to most charities' current mixes. In investing as in

matrimony, 'tis always better to underestimate than overestimate hoped-for gains from changes in the status quo.

9. **Torpor Derided**. As with rebalancing, most institutions review and revise their policy portfolios (which no endowed charity should be without) on a preprogrammed basis. This is unwise: both should be done on a strictly as-needed, with policy reviews triggered not by big market movements (the proper catalyst for rebalancing) but by material changes in the number or fundamental character of choiceworthy asset classes available to them.

10. **Dilettantism Devalued**. The impossibility of identifying either an ideal asset mix for all endowed charities or an unarguably correct method for fashioning institution-specific mixes doesn't mean that one person's opinion on such matters is as good as the next. Precisely because effective asset allocation requires as much art (read: intuition and experience) as science, it is best performed by (a) seasoned investors (b) assembled in small numbers (three- or at most five-person committees work best) (c) meeting on an as-needed basis and (d) thinking like owners rather than agents. Governing boards unwilling to cede responsibility for investment policy formulation to committees comprising five or fewer persons should redouble their efforts to recruit the individuals in whom they would indeed be willing to repose such trust.

Work in Progress

The writer didn't use a computer to devise the policy portfolio shown below, but he tested its implications with one. Readers who deem this approach too "unscientific" should note the words of Nobel Prize-winning medical researcher Konrad Lorenz (1903-1989): "Truth in science can be defined as the working hypothesis best suited to opening the way to the next better one."

Illustrative Policy Portfolio

* Primary goal = 6% gross real return (5% spending plus 1% investment-related expenses).
* Secondary goal = avoid peak-to-trough declines exceeding 25%.
* Assumes a 15-year investment horizon (2002-2016) and access to top-tier managers in all markets.
* Assumes ILBs purchased near or below par to maintain their utility as deflation (and inflation!) hedges. See TIFF Commentary for June 30, 2000.
* Normal allocations for this policy portfolio differ from the "Neo-Modern" mix below by design.

	Allocation Ranges*						**Reason(s) Held**	**Benchmark**
Segment / Eligible Assets	**Min**	**Norm**	**Max**	**Real Return**	**Value Added****	**Real Total Return**		
Total Return Segment	**55%**	**70%**	**80%**	**5.8%**	**0.6%**	**6.4%**	Preserve and enhance purchasing power in non-extreme market environments	MSCI All Country World Free Stock Index (currently roughly 50% non-US)
US Stocks	36%	40%	64%	4.5%	1.0%	5.5%		
Non-US Stocks								
Private Equity	11%	18%	25%	8.5%	subsumed	8.5%		
Absolute Return	5%	12%	19%	6.5%	subsumed	6.5%		
Inflation Hedging Segment	**8%**	**16%**	**24%**	**7.8%**	subsumed	**7.8%**	Preserve capital values during periods of high inflation	10-year US Treasury Inflation Protected Securities (TIPS) plus 4%
Real Estate	7%	12%	17%	8.0%	subsumed	8.0%		
Resource-Related Assets	1%	4%	7%	7.0%	subsumed	7.0%		
Deflation Hedging Segment	**4%**	**7%**	**15%**	**3.0%**	negligible	**3.0%**	Preserve capital values during deflations	10-year US Treasury notes
US$ High Grade Bonds	4%	7%	15%	3.0%	indexed	3.0%		
Non-US$ High Grade Bonds	0%	0%	5%	3.0%	indexed	3.0%		
All-Purpose Hedging Segment	**2%**	**7%**	**12%**	**3.4%**	negligible	**3.4%**	Avoid forced sale of other assets to meet cash flow needs	10-year US Treasury Inflation Protected Securities (TIPS)
Inflation-Linked Bonds	2%	7%	12%	3.4%	indexed	3.4%		
Cash Equivalents	?***	?***	10%	1.5%	negligible	1.5%		
Total		**100%**		**5.6%**	**0.4%**	**6.0%**		Weighted average of segment benchmarks

* Minimums and maximums for sub-segments may not sum to minimums and maximums for each segment because sub-segments serve as partial substitutes for each other.
** Expected value added from the use of assets or strategies that could cause a sub-segment's returns to deviate from the returns of its parent segment's benchmark.
*** Minimum and normal cash positions could be negative, subject to trustee discussion of appropriate leverage ratios. Endowed charities can lever their portfolios without incurring unrelated business taxable income — if they're clever about it. Of course, if leverage is permitted, non-cash ranges must be tweaked accordingly.

Changing Fashions

	Traditional *No Privates*	**Neo-Traditonal** *Some Privates*	**Modern** *Some Privates*	**Neo-Modern** *Generous Privates*
Fashionable in:	Dark Ages	1980s	1990s	2000s
Total Return Segment	**60%**	**60%**	**70%**	**75%**
US Stocks	60%	40%	40%	45%
Non-US Stocks	0%	15%	15%	
Private Equity	0%	5%	10%	15%
Absolute Return	0%	0%	5%	15%
Inflation Hedging Segment	**0%**	**10%**	**15%**	**15%**
Real Estate	0%	10%	10%	5%
Resource-Related Assets	0%	0%	5%	5%
Inflation-Linked Bonds	0%	0%	0%	5%
Deflation Hedging Segment	**35%**	**25%**	**15%**	**10%**
Conventional Bonds*	35%	25%	15%	10%
Cash	5%	5%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**
Riskiness				
Short-Term Principal Loss	High	Moderate	Moderate	Low
Illiquidity	Very Low	Low	Moderate	High
Reputational Risk (circa 2002)	High	Moderate	Low	We'll See
Long-Term Return Shortfall**	Very High	High	Moderate	Low

* Deflation-hedging bonds should be high quality, long-term, and non-callable.
** Probability of earning annualized real returns below 6% over the very long term.