Case Study
Global Tactical Asset Allocation for Institutional Investment Management

By Leo de Bever, PhD, Jagdeep Singh Bachher, PhD, Roman Chuyan, CFA®, and Ashby Monk, PhD

The Alberta Investment Management Corporation (AIMCo) was established in 2008 to manage approximately C$70 billion on behalf of 26 pension, endowment, and government reserve funds in the Province of Alberta, Canada. The fund’s overarching goal is to earn incremental return on risk over what our clients could achieve by passively implementing their policy asset mixes with equity and fixed-income index funds. One way to earn return in excess of passive portfolios is through our global tactical asset allocation (GTAA) strategy.

Success in this domain, however, is not easy to achieve in practice. It requires four key ingredients: 1) a team with the skill to identify the attractive asset allocation opportunities; 2) clean position and valuation data, running on robust business information systems; 3) clear accountability for strategy implementation; and 4) timely management feedback through accurate and robust performance attribution.

In this brief article, we provide a description of the ways in which AIMCo has developed and executed its GTAA process over the past few years, focusing our discussion along the four key themes highlighted above. In so doing, we offer our insights and experience, which we hope will help other institutional investors considering or preparing to launch similar GTAA or tilting policies.

We conclude that executing a successful GTAA strategy requires world-class talent, systems, process, and governance.

Investment Beliefs

Before we describe AIMCo’s GTAA process, it’s useful to first offer some background on the thinking and investment beliefs that underpin AIMCo’s investment strategy. In short, we believe

1. 90 percent of risk and return for a typical balanced stock-bond portfolio comes from policy asset allocation (Brinson et al. 1986, Brinson et al. 1991, Ibbotson and Kaplan 2000). Average active risk (the remaining 10 percent) is small relative to passive risk. Concordantly, average return on active risk is expected to be small as well, which means that it is difficult to add significant return through management of active risk.1

2. A passive policy index fund’s returns, net of implementation costs, should be the performance benchmarks for measuring management’s effect on performance.

3. Allocation effect, i.e., moving asset weights away from those specified by the policy, to capture time-varying returns on asset class risk.

These investment beliefs have played an important role in our decision to launch GTAA. In the sections that follow, we will describe how this strategy has been executed successfully.

Business Systems and Data Quality—Prerequisites for GTAA

Investment managers often neglect the need for high-quality business systems and data. At AIMCo, we believe that we have to know where we are today in order to make effective decisions on where we should be tomorrow. As such, good investment systems and accurate data are necessary requirements for GTAA to have a reasonable chance of success. Multi-client organizations such as ours have to be especially careful that economies of scale in decision-making are reflected accurately in all client portfolios.

For a balanced fund manager to take control of the effect of asset allocation on performance, accurate asset-mix information must be available for each client as well as at the total fund level. As a result of client policy-weight changes, transactions, and active portfolio returns relative to benchmarks, active (relative to policy) allocations drift daily. Because of the pervasiveness of asset allocation on total portfolio performance mentioned above, small deviations from policy can cause large unintended performance effects. A manager can choose a passive (yet controlled) approach to rebalance...
AIMCo significant discretion to actively manage asset allocation—the ranges are commonly up to +/−10 percent. Armed with improved systems and data, AIMCo started actively managing linear asset class exposures (equities versus fixed income) starting in 2010. Generally, the economic and market situation does not warrant shifts in the allocation. Accordingly, the active allocations are often quite small—for example, we were overweight public equities by $158 million on June 30, 2012 (table 1).

Infrequently, however, a big shift in the market occurs and proper positioning can pay off in a big way, provided that the right data and process are in place. In addition to linear asset class tilts, active strategies were added in 2012 that take advantage of short-term imbalances and mispricing in a nonlinear way that is mostly uncorrelated with major asset classes. The main weakness of our process is that—like most of our peers—we are still fixated on marginal asset allocation, as opposed to marginal risk allocation.

**Building a Strong GTAA Team**

Markets may not be efficient, but it is hard to make money with GTAA from their bipolar tendencies. It is pointless to engage in GTAA without strong participation from the senior investment team, backed by good economic analysis and quantitative modeling skills. At AIMCo, we have a Tactical Risk Allocation Committee (TRAC) that meets weekly to discuss new findings and consider position changes. TRAC is composed of the chief executive officer, the executive vice presidents for public assets, private assets, venture, and innovation, as well as the chief risk officer, the head of the client relations group, and our research and economics team.

Within TRAC, the rules of engagement are simple: All ideas are openly debated, proposals have to be backed by solid analysis, mistakes are seen as an inevitable part of the process, and not everything has to pay off right away. In general, the TRAC team favors strategies that combine predictive factors into consistent statistical models to produce return forecasts, which can be tested historically for effectiveness in predicting market returns. This approach assumes systemic consistency over time, which is clearly an imperfect belief. But as one of our former colleagues put it: Models are to be used but never fully believed.

Risk has to be an input into the risk-return GTAA decision. We consider normal asset class risk and stress-testing, and we spend considerable time pondering unknown risks. These evaluations of risk combined with return expectations form the basis for GTAA decisions that amount to spending money on insurance while hoping the

### TABLE 1: TOTAL AIMCO ASSET MIX (AS OF JUNE 30, 2012, IN C$ MILLIONS)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Policy</th>
<th>Actual Portfolio</th>
<th>Active Allocation</th>
<th>Active Allocation Including Notional</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMCo Total</td>
<td>67,629</td>
<td>67,629</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Government Clients</td>
<td>13,173</td>
<td>13,173</td>
<td>(0.2)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Money Markets and Fixed Income</td>
<td>12,572</td>
<td>12,571</td>
<td>(0.5)</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Public Equities</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiquid Assets</td>
<td>593</td>
<td>594</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Balanced Clients</td>
<td>54,457</td>
<td>54,457</td>
<td>(37)</td>
<td>(247)</td>
</tr>
<tr>
<td>Money Markets and Fixed Income</td>
<td>16,286</td>
<td>16,249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Equities</td>
<td>24,741</td>
<td>24,688</td>
<td>(53)</td>
<td>158</td>
</tr>
<tr>
<td>Illiquid Assets</td>
<td>13,359</td>
<td>13,448</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Overlays</td>
<td>71</td>
<td>71</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
insurable event will not occur so our portfolios do well. We also use a scorecard of economic, sentiment, and valuation indicators. Some of these measures lack timeliness. Some get more attention than they deserve. Some combinations of indicators can give conflicting signals. This effort is still a work-in-progress for us at AIMCo.

**Measuring Outcomes**

To be sure, assessing the success of GTAA strategies necessitates the capability to accurately measure the outcomes from any GTAA decisions. At AIMCo, we achieve this by decomposing the total post active return above benchmark into the asset allocation and security selection effects. Overweighting asset classes with above-average benchmark performance results in a positive allocation effect. Any deviations from policy will result in a non-zero allocation effect, whether these positions were explicit TAA decisions or short-term asset mix valuation drifts.

Meaningful calculation of the allocation effect can be achieved using well-known Brinson-Fachler decomposition. For one day, for an asset class, we have

\[
\text{Allocation effect} = (\text{Portfolio weight} - \text{Benchmark weight}) \times (\text{Benchmark return} - \text{Fund Benchmark return}).
\]

The formula is simple, but many details must be carefully considered for proper attribution, including dollar-weighted attribution, multi-level allocation decision attribution, and compounding.

Further, a significant portion of the AIMCo fund is composed of illiquid asset classes—real estate, private equity, infrastructure, and timberland investments. Our clients want more of these asset classes would be meaningless. Our solution to this problem is “illiquid banking”—periodically making benchmark weights for illiquid assets equal to actual weights and redistributing the difference between stock and bond benchmarks where the actual assets are temporarily invested (i.e., banked). This results in an allocation effect close to zero, while still allowing us to keep all assets in the total fund attribution.

In sum, explicitly reporting the allocation effect gives critical feedback on whether this process is delivering value, reveals opportunities for improving performance, and offers a basis for incentive compensation. Recognizing the importance of timely investment performance reporting, we’ve established daily performance attribution, covering periods from one day to year-to-date.

**Does It Work?**

Most of the time, market valuations are not extreme enough to provide an unambiguous signal (as they did in 1999) that a directional shift was a question of when, not whether. In those average environments, GTAA can add some value (nickels and dimes) by taking advantage of short-term imbalances and mispricing. However, once or twice every decade, as in 2000, 2007, and 2009, GTAA can pay off in a big way, provided that we can act with enough conviction to overcome the fear of career risk in making decisions big enough to count.

At AIMCo, we used to lose money on GTAA because of weak systems, weak data, and slow attribution feedback. Today, our talent, systems, data, and processes are world class, and we are adding 0.15 percent to 0.2 percent to total return from active GTAA strategies. Moreover, we feel comfortable in taking bigger positions should a once-in-10-year event present itself. In our experience, the key factor driving the success of GTAA stems from the hard work the organization has done to develop world-class talent, systems, investment decision-making process, and governance capabilities. Ironically, it’s these mundane factors that have helped to create some of the best value in our investment operations.

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**Endnotes**

1 To keep things simple in this article, we use standard deviation as a measure of risk, although in practice we recognize the non-normality of tail risk by using Value-at-Risk and expected tail risk. The appetite for incremental risk for active management can be established by measuring the risk associated with the most-risky and the least-risky acceptable asset mixes from the range around asset mix. Incremental

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active risk is typically small, but because of significant diversification between active and passive investment decisions, the implied stand-alone active risk or tracking error is typically 2–4 percent. If one can put together a team that has an annual asset class information ratio of 0.25 (typically a second-quartile manager), the addition to passive return can be 1–2 percent, given an empirical 2:1 risk diversification across asset classes.

In a pension context, plans should use asset-liability risk. In practice, however, we often are prevented from doing so by restrictions on leverage, or borrowing, which is (usually erroneously) viewed as adding to asset-liability risk.

References