Sponsor's statement

Strategic asset management

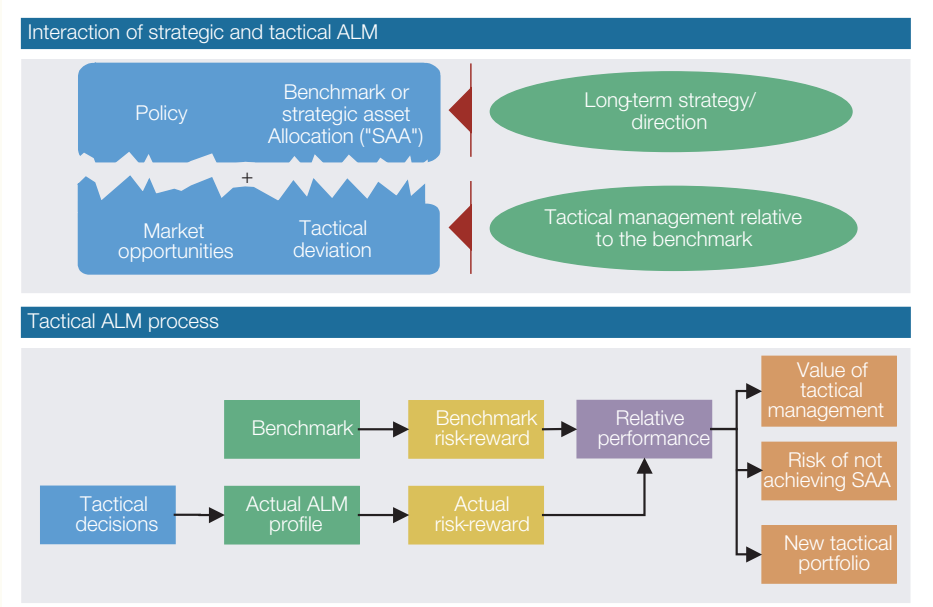
In recent years, there have been a number of international regulatory developments and changes in accounting standards that have impacted the way banks, insurance companies and pension funds think about asset allocation. While these developments, such as Basel II and IAS 39, suggest a greater alignment between asset allocation and risk management, the emerging trends also give rise to a number of complexities for treasurers and portfolio managers to consider in deciding how to best allocate scarce resources. Such complexities arise from trade-offs between competing objectives, including pursuit of yield, diversification, alignment of investment policies with economic risks versus reporting volatility and so forth.

Similar to international markets, there are a number of changes and complexities facing treasurers and fund managers in Malaysia. Malaysia is expected to adopt accounting rules similar to IAS 39 in January 2006 while implementation of Basel II will likely occur over the medium-term. In addition, regulations around foreign currency investments are expected to relax given the economy has emerged from the Asian financial crisis for quite some time. Some market participants believe the ringgit now faces strengthening pressure as opposed to weakening pressure if left to only market forces.

And similar to other economies in the region, such as Korea, the government is encouraging Malaysian companies to diversify exposure to enhance risk adjusted returns. For instance, the pension and insurance funds can now invest 30% of assets in foreign securities versus the previous guideline of 10%. Such increased limit is more for the investment funds, while most other foreign currency investments the 5% solvency margin rule still applies. The pace of liberalisation of the economy is further evidenced by the release of the Investment Linked to Derivatives guidelines in April 2005. These and other such steps are evidence of Bank Negara's willingness to liberalise investment regulations and increase the number of investment opportunities available to domestic institutional investors. With so many choices and decision variables, how should investors optimise their portfolios to achieve the highest risk/return ratio?

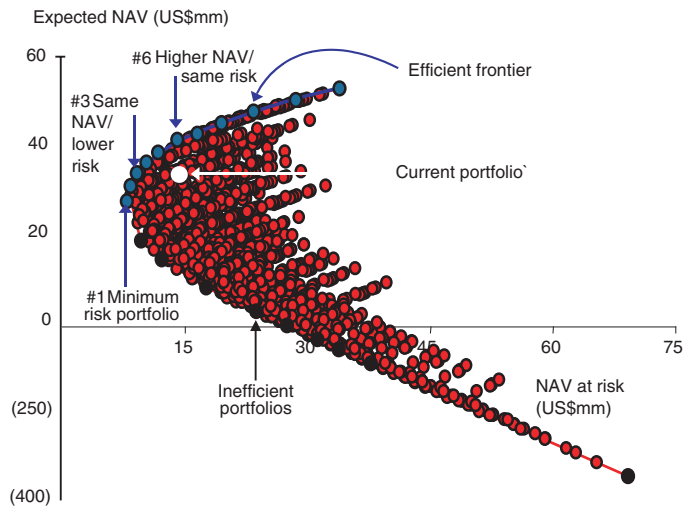
Asset allocation framework

With all the complexities, treasurers and portfolio managers require a framework for setting strategic asset allocation policies that capture the various risks to the entire firm – it is not enough to capture asset risk alone. For example, an investment portfolio's exposure to currency risk will generally be through its mix of foreign assets, liabilities, capital and off-balance sheet risks. These exposures determine how foreign exchange volatility impacts a company's performance in terms of income, net asset value, cashflow and ultimately share price performance in the case of listed companies. Maximising value for the firm requires more than just beating equity or bond indexes – it requires a holistic framework that captures risk/reward



Simulating the current portfolio and a number of alternative portfolios generates an efficient frontier

- Optimise NAV in 2008
  - Maximise expected NAV
  - Minimise NAV-at-risk
- Can optimise on earnings
  - Current strategy
  - Cash
  - Equity
  - Government bonds
  - Corporate bonds
  - Real estate
- Run monte carlo simulation on variety of portfolios
- Simulated strategy
  - Cash
  - Equity
  - Government bonds
  - Corporate bonds
  - Real estate
  - Diversified int'l credit
  - Int'l hedge funds
- Develop efficient frontier for strategic asset allocation



trade-offs to all areas of the balance sheet. Said another way, marginal investment decisions should account for the economic capital being consumed as well as any asset liability or off-balance sheet mismatches that may arise. In the following paragraphs, we briefly describe our five-phase process and holistic approach.

The first step in any strategic asset allocation exercise is to set the context of the analysis, which is customised to the situation of each financial institution. This step establishes the backdrop for the analysis, and sets out the goals/objectives of such a process. The second step requires setting performance metrics that are relevant to the asset allocation policy decision given the context established in step one. For instance, insurance companies seeking to develop long-term asset allocation policies may set economic net asset value (NAV) and NAV-at-risk as the performance measure to optimise against. Alternatively, a bank may wish to consider asset allocation strategies to maximise reported net interest income. Pensions, on the other hand, may seek to maximise asset returns subject to expected employee benefits.

The third step deals with developing 'exposure maps' to describe the interaction between various risk factors (eg, market, credit, insurance, pension liability, etc.) and performance measures. Clearly there are different exposure maps for different metrics. For example, the earnings exposure map reflects how forex volatility, interest rate risk, inflation uncertainty, commodity price risk, and other factors impact reported earnings, whereas the cashflow exposure map reflects how these risks impact cashflow to meet financing and capital requirements. Essentially, the exposure maps provide a roadmap to determine how marginal investment decisions change the risk profile of a firm and impact the performance metric – the exposure maps form the basis to test investment choices to determine if certain portfolios are efficient or inefficient.

The fourth step requires simulating a number of different portfolios to examine all possible efficient portfolios, and map those choices against real world practical constraints. For instance, pensions and insurance companies are often regulated and can only invest in certain asset classes or geographies. In addition, certain assets may attract prohibitively high capital charges while making perfect economic sense to invest. Any such optimisation will have to be restricted to the products/assets that are allowed as per existing regulations. While this potentially moves away from the ideal point as defined by the model, it is still possible to incorporate the constraint within the model, and achieve significant benefits through this approach.

Above is an example of a set of efficient portfolios generated from exposure maps – each efficient portfolio is eligible to be chosen as the strategic asset allocation benchmark.

In the example, the treasurer or portfolio manger has inherited the current portfolio, which lies below the efficient frontier and is considered inefficient. This often arises as a result of concentration risk or asset liability mismatches. Alternatively, the asset manager could reallocate to any one of the portfolios that are more efficient depending on risk appetite. After developing a set of efficient portfolios and choosing a target portfolio, the final step makes a clear distinction between the strategic and tactical aspects of asset allocation and emphasises how they are linked through the concept of an exposure 'benchmark'. An exposure benchmark is essentially a policy for managing risk exposures that is optimal in relation to the treasurer or portfolio manager's long-term objectives. The benchmark sets the strategic direction for exposure management by defining the target long-term strategy, which is then used as the reference point for short-term tactical management. Tactical decisions are therefore evaluated relative to the benchmark: the expected benefit (reward) is measured in terms of outperforming the benchmark and the risk is measured in terms of the risk of underperforming the benchmark. In this way, the benchmark can be viewed as the link, or bridge, between strategic and tactical asset allocation.