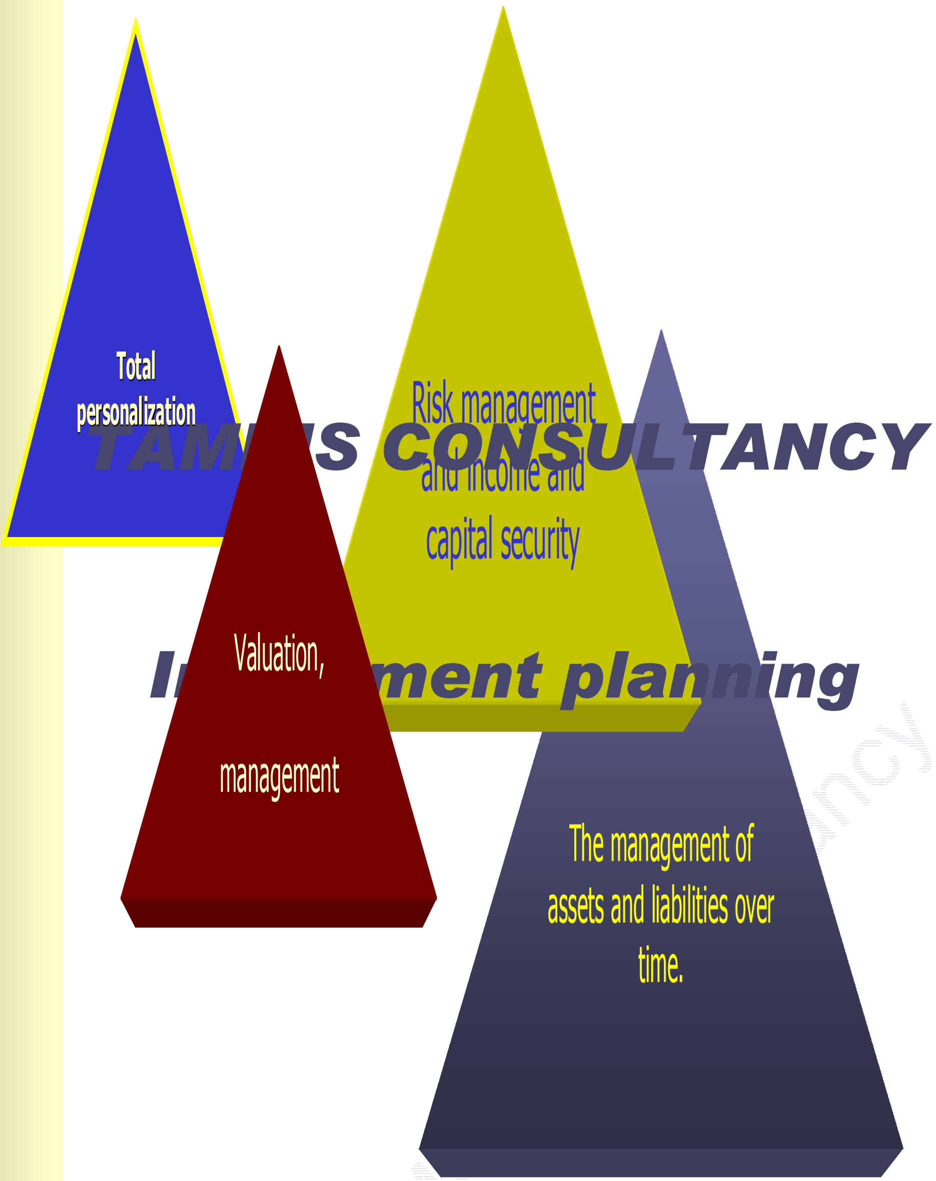
T.A.M.R.I.S



The TAMRIS Triangle is a representation of the physical symmetry and relationship between assets and liabilities over time. Symmetry is a concept long accepted within physics as key to understanding the natural laws and relationships of the universe. Taking away liabilities from the portfolio decision is similar to disabling Einstein's theory of relativity, since this theory incorporates all elements of the universe.

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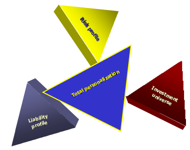


Every client is different; "Every client's financial needs, existing assets, preferences and size and timing of portfolio inflows and outflows are different and have a direct and unique impact on portfolio structure, planning and management."

Capital depletion; most investors, whether or not they are high net worth, are likely to be depleting capital over time. Only the extremely wealthy are able to live comfortably off interest and dividend income alone. The risks of long term capital depletion need to be modelled and managed.

The portfolio problem; structuring a portfolio to meet income needs from interest and dividend yield alone may result in excessive allocation to assets with little potential for capital gain and inflationary risk. On the other hand, financing ongoing financial needs from regular disposals of equities exposes financial security to significant stock market risk.

Income and capital security; income and capital security provided by a portfolio should not be affected by inflation, stock market crashes, bear markets and economic recessions.

Portfolio dynamics; a portfolio should be able to adapt to change, anticipate change and remain appropriate as things change. Every asset should have a role and a rationale for being.

Wealth management; all financial services ultimately depend on the amount of capital a client has and the capital he or she can accumulate over time. All needs, services and products need to be integrated via the management of capital over time and not a point in time. This is "Total Asset, Life Cycle, Wealth Management".

WHAT IS INVESTMENT PLANNING?

Investment planning is the **construction**, the **planning** and the **management** of total assets to meet total financial needs over an investor's lifetime, in a manner which protects needs against the effects of significant stock market and economic risk.

THE CONSTRUCTION

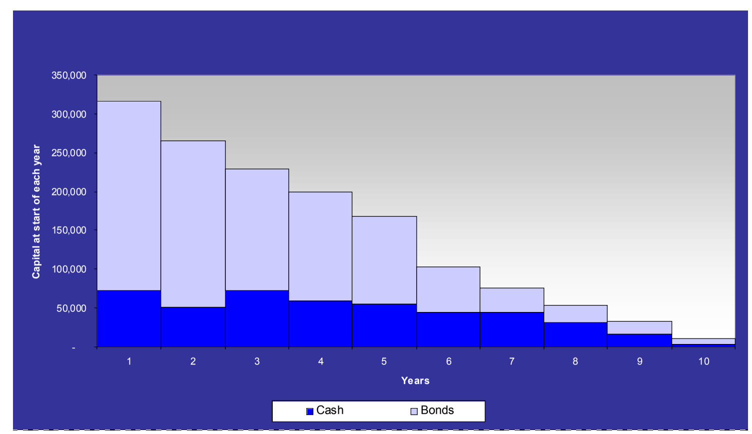
Investment planning is the management of assets within a liability management framework. TAMRIS is the first consultancy to have developed such a framework. These frameworks are key to the provision of portfolio personalisation and the management of financial security

Investment planning disciplines integrate asset management with the management of liabilities over time.

Optimisation

TAMRIS solves the portfolio problem by optimising the allocation to low risk assets to secure short term financial needs in the event of significant stock market and economic risk. The balance is allocated to equities for longer term return.

The amount allocated to low risk assets should be sufficient to cover financial needs over a period of significant financial risk. TAMRIS research suggests that financial needs on average need to be covered for at least 8 years during fair market valuations. During extreme market valuations, this should be higher.



This structure allows you to defer equity sales during low market valuations and forces you to sell to maintain portfolio security at fair to high market valuations.

Optimisation allows investors to optimise the allocation between short and long term financial assets and short and long term financial needs and to safely deplete capital and take a long term approach to equity investment.

Optimisation cannot be done without long term asset/liability modelling, conservative risk/return assumptions and the asset management expertise needed to manage excess risk and return.

Low risk allocation and security selection

TAMRIS disciplines allow the construction of portfolios personalized to each client's liability profile from one central low risk portfolio.

Liability management disciplines provide a framework that determines the relationship between low risk asset classes and time frames and specific low risk securities and liabilities. This low risk portfolio management interface interacts with TAMRIS systems' short term client liability profiles to provide personalised low risk portfolios – See TAMRIS Asset Liability Modelling & Management for further information.

The recommended allocation to cash, to fixed interest, to corporate bonds to international fixed, the maturity structure and liquidity are all personal to the client.

Short term asset liability modelling

The heart of optimisation and low risk portfolio personalization is the short term asset/liability model which matches asset classes and securities against liabilities and time frames.

- This framework allows for the integration of existing low risk assets within the management of recommended low risk allocation. It also provides a structure and framework for the management of ongoing portfolios.
- The ability to incorporate the effects of future liabilities allows TAMRIS systems to plan for and structure portfolios to meet future needs now.

BASIC PORTFOLIO STRUCTURE

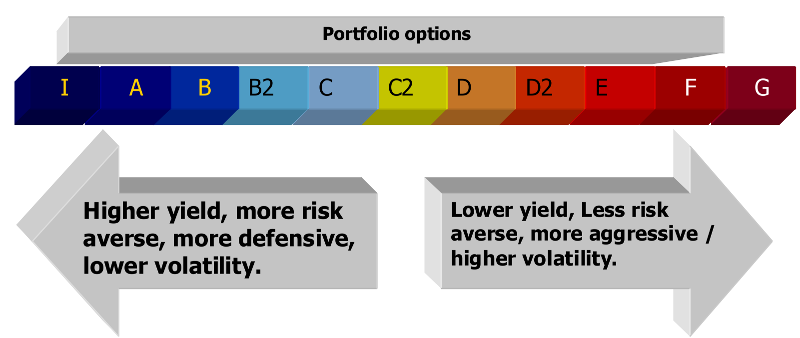
The short term asset/liability modelling defines the basic portfolio structure, low risk allocation and security selection and the allocation to equities. This is the organisation's recommended structure to meet liabilities and manage significant stock market and economic risk. As client stock market risk aversion increases, the security offered and the allocation to the low risk portfolio rises, reducing the allocation to equities. See TAMRIS; Risk profiling, Education & Risk Assessment for further information.

EQUITY PORTFOLIO SELECTION

With low risk allocation determined by liability profile and stock market risk aversion, organisations are free to structure and manage their equity portfolios without low risk allocation constraints.

TAMRIS investment planning disciplines relate an organisation's portfolio options to the universe of client net yield requirements and client return objectives. The net yield requirement is the client's net liabilities divided by the value of the portfolio. This represents the amount the client needs to take from his portfolio to meet his or her income and capital expenditure objectives and is comprised of interest, dividends and portfolio capital.

The construction of portfolios best meeting this universe is dependent on an organisation's investment discipline and personalisation objectives. For more information see TAMRIS: Investment Discipline and Allocation Vehicles. For example;



TAMRIS processes relate portfolio options with yield/return requirements and provide a mechanism for adjusting selection in accordance with client stock market risk aversion. A client with a yield requirement of 2% may normally be allocated portfolio E but because of a degree of stock market risk aversion might receive portfolio C2. An aggressive client with a net yield requirement of 5.5% may get portfolio F instead of portfolio B.

The net yield requirement on which portfolio selection is determined is based on a long term average net yield requirement. While a client's annual net income requirement can vary significantly, the longer term average will be more stable and more representative of the client's underlying liability profile. This results in lower transaction costs and more appropriate long term portfolios.

- Separating low risk allocation from equity allocation enhances opportunities for personalisation.
- Investment departments are able to focus expertise on developing objective driven portfolios.
- Aggressive investors can take a higher risk equity option without exposing financial security to stock market and economic risk.
- TAMRIS matrix techniques enable automation of portfolio selection in response to liability profile and risk aversion.
- TAMRIS's liability derivation of portfolio structure allows planning to anticipate changing portfolio needs in advance.

Global equity allocation

TAMRIS global allocation processes include the segregation of portfolio options into country/region specific portfolios.

This enables the personalisation of global allocation with respect to client net yield requirements, stock market risk and performance risk preferences.

Investment planning techniques adjust global allocation strategy for the universe of client net yield requirements. This allows global allocation to incorporate liability profiles into structure. As with equity portfolio options, recommended global allocations are adjusted for the universe of stock market risk aversion.

Finally, TAMRIS provides a performance risk filter for global allocation. Investors wishing to leverage the opportunity for return from global markets can do so, while those wishing to reduce the performance risk associated with global allocation can reduce their global allocation.

- These techniques are able to produce thousands of different global allocations from one central investment strategy, simplifying the portfolio construction and management process yet providing total portfolio personalisation.
- Portfolios match client liability profile, risk return objectives and expectations.
- Global allocation filters also provide a framework for managing allocation for existing clients with ongoing liabilities and long term clients with no short term medium term liabilities.
- Filters used to adjust allocation are constrained by an organisations own investment disciplines.

Initial allocation

TAMRIS systems and processes are able to manage the initial investment process in ways that conventional portfolio management solutions cannot.

Recommended equity portfolios interact with valuation and allocation models to determine the initial investment strategy for cash investors.

This is a dynamic process in that the system is able to carry the implementation and transition of portfolios over long periods of time.

One of the dynamic benefits of integrating liability with asset management, valuation and allocation models and portfolio construction and management processes.

Recommended portfolio

The recommended portfolio is one which is outputted by the system in response to data entry and manipulation by the investment planning professional. The recommended portfolio process is managed by the central investment unit.

THE PLANNING

With the centralisation of portfolio construction and management afforded by liability management frameworks and the personalisation of portfolio structure to total financial needs and risk profiles afforded by the same, the role of the traditional portfolio manager will change.

Investment planners

Investment planners are professionals charged with the planning and management of an individual's total financial needs and assets.

- They are responsible for the planning and management of client financial needs and not for portfolio construction, investment timing and security selection.
- They are knowledgeable in asset liability matching and modelling, the management of short term financial security, risk profiling, asset allocation and return management amongst others.
- They understand rules and regulations relating to insurance, pensions, estate planning and tax but not necessarily responsible for implementing these areas.
- Investment planners are the central cog in the wealth management structure. Insurance, pensions and estate planning functions cannot be completed without investment planning analysis.

THE PROCESS

Client data entry

- Present and future expenditure needs.
- Present and future sources of income.
- Size and timing of future liabilities.
- Size and timing of expected future capital.
- All investable assets; cash, fixed interest, equities (mutual funds and stocks), other products.

Risk profile

The risk assessment process comes up with direct inputs into the investment planning & asset management system. These inputs affect the final allocation to low risk investments, the final equity portfolio selection and the way the equity portfolio will be managed over time. Risk assessment is a detailed process and discussed in TAMRIS Risk Profiling, Education & Risk Assessment.

INVESTMENT PLANNING SETTINGS

Strategic settings

- Is the client coming from cash? If the client is coming from cash, what is their initial investment risk aversion?
- Is the client an active client, in the sense that he or she is relying on portfolio capital to support income and capital needs or will shortly be an active client?
- Is the client a long term client, with no income and capital needs arising within the next ten years?

All these factors will affect the initial investment strategy, the ongoing strategy and the management of the equity portfolio over time.

TAMRIS systems use two equity valuation models. The first are absolute valuation models which determine initial investment strategy into each market and market segment, the second are the relative valuation models which determine the management of fully invested portfolios.

Cash investors will invest in accordance with the absolute valuation models until fully invested. Fully invested investors will follow the relative valuation models but active investors will be more sensitive to extreme valuations, holding higher strategic cash content than long term investors with no liabilities.

It is TAMRIS's liability framework that allows this greater depth of portfolio personalisation.

Portfolio yield requirement

Within TAMRIS, the "net yield requirement" is the primary basis for the selection of the equity portfolio option. TAMRIS liability management systems allow you to base portfolio selection on a long term average "net yield requirement". There is no point in selecting an income portfolio for needs this year, if needs for the years after are much lower or indeed higher.

TAMRIS systems have investment planning switches allowing the advisor to adjust for inflows and outflows of income and capital and reliability of future inflows. For example a client may have future capital coming into the portfolio in two years time. Adjusting for this inflow, the yield requirement on the portfolio will fall. The system allows the two year interim period to be adjusted for within portfolio structure while selecting the equity portfolio option more likely to apply for the long term demands on the larger portfolio.

Continuity of equity portfolio structure is important in reducing costs, and enhancing portfolio personalization.

Reinvest surplus income/capital

The application of future surplus income and capital to the portfolio can have a significant impact on portfolio planning. Investment planning disciplines here are key. TAMRIS systems default is for future inflows to be allocated to equities, the need to secure short term needs being paramount. However there are instances when it is useful to be able to take advantage of future inflows within planning.

Clients moving towards retirement should be able to use future savings to build up the low risk allocation for retirement. Future lump sums, if certain, can be used tactically to right portfolio allocation imbalances.

The ability to balance a number of factors within portfolio structure and planning provides considerable leverage to client portfolio managers/financial advisors using sophisticated investment planning systems.

TAMRIS systems are also important training tools, guiding the advisor and enhancing his investment planning skills.

INVESTMENT PLANNING ANALYSIS

Systems and processes analyze the ability of all assets to meet all financial needs over time. Can the client's objectives be met and, what is a suitable course of action if not?

Do the clients need to reduce expenditure, increase savings (before retirement), can they afford to defer taking their pensions, what is the maximum amount they can spend in early retirement, what is the most appropriate level of pension to take from pension funds, what is the best allocation of assets between pension funds and personal assets, is there an estate planning problem, what gifts can they make from their estate without affecting their financial security, how do they balance their wish to leave assets to their children against the need to support their own needs, is there a life insurance requirement, is insurance a viable cost given the capital available, do they have enough assets to cover nursing home needs etc?

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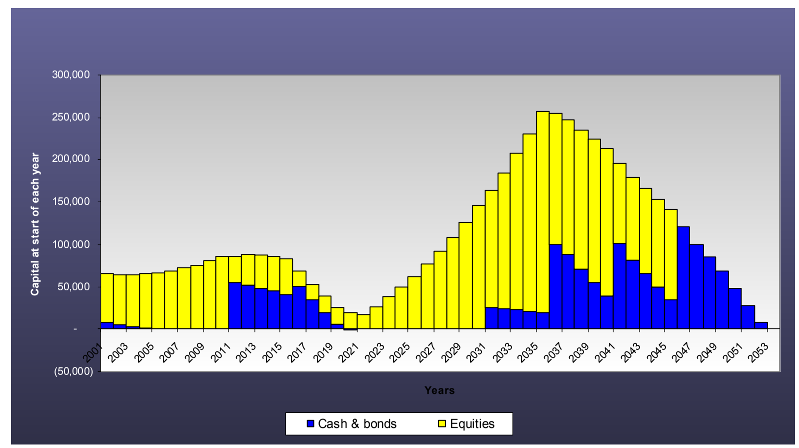

Integration of asset and liability management enables modelling tools to analyse the joint impact of all financial needs and planning simultaneously. In fact the above techniques cannot be achieved without a short term asset liability optimiser. Conventional asset liability modelling does not possess this level of flexibility.

Return assumptions model ability to cope with significant stock market and economic risk, minimizing risks to long term income security.

THE MANAGEMENT

The planning and **the construction** determine the structure, securities and management parameters of the recommended portfolio.

Asset and liability management

When managing liabilities, you cannot focus solely on the difference between the recommended and the current allocation.

- New clients will have existing investments. Some may be illiquid, others may have similar risk and asset allocation profiles to those recommended.

  TAMRIS allows for illiquid investments within structure and planning and the retention of investments whose asset allocation can be incorporated in portfolio structure.

- Transition from the old portfolio to the new may take some time.

  TAMRIS allows planners to focus on key areas during this transition, cash management, short term financial security and areas of excessive allocation.

- The ongoing balance of the portfolio between the low risk assets and equities will need to be managed, with highly valued equities sold to rebuild the low risk cover.

  TAMRIS provides processes and tools for the management of return and portfolio structure.

- Markets may be over valued and cash may be held in lieu of equities.

  As relative and absolute valuations change, the system readjusts strategic cash allocation, strategy and application, even transferring strategic cash allocation to the main low risk portfolio.

- The most important asset within the portfolio is cash and assets should not have to be sold to meet income and capital liabilities.

  TAMRIS focuses on the management of cash balances and maturing low risk investments to ensure liquidity needed to meet liabilities is available at all times.

Management process

Investment planning focuses on the management of liquidity, allocation and return within the four portfolio components; the short term low risk portfolio to meet income and capital needs (cyclical low risk is part of the short term portfolio but indicates higher allocation due to advanced stock market and economic cycle), the conservative low risk portfolio for risk averse investors, the strategic cash portfolio earmarked for equities and the equity portfolio.

Short Term Optimum	£	%
Base low risk cover	156,401	23%
Cyclical low risk cover	7,440	1%
Long term low risk allocation (conservative)	0	0%
Strategic cash & fixed	79,234	12%
Equities	425,642	64%
	668,717	

Short term low risk portfolio management

Investment planning is responsible for the management of liquidity with respect to the recommended securities and allocation. TAMRIS processes analyse the short and longer term liquidity profile of the low risk portfolio.

- In the case of an over weight low risk portfolio, advisors need to identify the overweight allocations, then the period of excess liquidity, then sell the asset and reinvest in equities.

- In the case of an underweight low risk portfolio, the advisor should focus on the under weight allocation, then identify the period of deficient liquidity, then purchase the recommended security corresponding to the asset class and the time frame.

For existing portfolios established within the liability management process, the annual activity is limited to monitoring of liquidity, short term cash management, the regular realisation of equities to maintain low risk financial security and the investment of such capital realised in accordance with recommended securities and structure.

New client portfolios are more difficult and portfolio planning tools are indispensable in this respect. For example, a low risk portfolio can be overweight in low risk assets, it may have insufficient cash, it can have the correct amount in domestic government fixed interest but the wrong maturity structure and, it may also have a large low risk asset which cannot be realised for say four years.

Investment planning disciplines allow restructuring of the portfolio to provide the correct liquidity, an appropriate maturity structure and changes to the allocation allowed by liquidity management.

Analysis of liquidity is based on the client's existing low risk assets. This is important. Differences in the yield, maturity structure and liquidity will mean that the liquidity profile of the existing portfolio will be different from that of the recommended. Basing decisions solely on the recommended allocation will result in asset/liability matching errors and inefficient portfolios.

Conservative low risk portfolio

Clients averse to stock market and economic risk have a higher allocation to low risk assets. TAMRIS treats this section of the portfolio as separate from the liability orientated short term low risk portfolio. The management of this section of the portfolio depends on the security/fund options used by an organisation and the allocation parameters for management.

TAMRIS systems allow this section of the portfolio to be integrated within the liability driven section of the portfolio for the analysis of short term financial security. Assets held in the portfolio, during protracted periods of significant stock market and economic risk will gradually move into the short term liability driven low risk portfolio.

Strategic cash & fixed

There are two reasons for holding strategic cash.

- The initial investment into a market may be held back because of high valuation.
- A market allocation may be reduced because it exceeds that recommended, but cash cannot be reinvested.

Two factors affect the allocation of cash.

- The absolute valuation of a market or market segment
- The relative valuation of a market or market segment relative to others.

It is not only a change in "absolutes" but also "relatives" that determine how much and when and where. TAMRIS's integration of liability and asset management and portfolio management with valuation and allocation models allows automated management of this function.

By linking the physical properties of portfolio construction and the natural structural laws of investment, we are able to provide a system whose consequences are intuitive and logical. For example, cash held in lieu of equity investment is automatically transferred to the short term liability low risk portfolio as low risk cover falls. .

EQUITY MANAGEMENT

At the investment planning level, TAMRIS systems focus on the management of allocation, risk and return. Allocation is managed by a set of personalized benchmarks not to be confused with performance benchmarks. These benchmarks are set by the central investment unit.

Allocation management

The objectives of allocation management are twofold. The first is to manage the realisation of equities to rebuild the low risk portfolio to support income and capital needs. The second is to manage the global and specific allocation of the equity portfolio.

Decision stage 1 - Is there a need to transfer capital between different sections of the portfolio?

Decision stage 2 - Is the portfolio "significantly" over weight or under weight any global market?

Decision stage 3 - Identify "significant" imbalances within the overweight and under weight markets.

Decision stage 4 - Realise from overweight positions within over weight market, transfer required capital to low risk portfolio, transfer balance to under weight components of under weight market.

Decision stage 5 - Within specific markets, rebalance for "significant" allocation differences, transferring capital to low risk if necessary.

Benchmark management

TAMRIS uses global benchmarks to manage global allocations and specific market benchmarks to manage specific market allocations.

Specific market benchmarks

Specific market benchmarks are the same benchmarks used to construct the recommended specific market portfolios. TAMRIS prefers to use relative valuation benchmarks which mean that allocation strategy is automatically adjusted for market movements.

To these benchmarks are added minimum and maximum ranges. This ensures that positions are not sold as soon as allocations move beyond the recommended and limits the allocation to market components which represent above average risk and return.

Benchmarks can also carry strategy and market views. Highly valued areas may have a low maximum and wide minimum deviation, forcing sales and deferring purchases, while under valued areas might have a high maximum and a narrow minimum deviation, forcing purchases and holding off sales.

These maximum and minimum deviations are also affected by liability profiles and risk aversion. Portfolios with ongoing liabilities will need to be more sensitive to realising highly valued areas for low risk transfers, conservative clients will want to minimise the risks of large portfolio positions.

Global market benchmarks

TAMRIS investment planning disciplines adjust global allocations to each specific market for liability/yield requirement, stock market risk aversion and performance risk aversion.

Global allocations are also managed by a relative valuation framework which adjusts recommended global allocations for relative price movements.

As with specific market management, the management of global allocation minimum and maximum benchmark allocations are used to manage this allocation.

TAMRIS global allocation framework

TAMRIS's global allocation and management framework values and allocates to global markets based on relative economic cycles and stock market valuation. Over valued markets and advanced economic cycles are under weighted, under valued markets and early economic cycles are over weighted. Management benchmarks are designed to limit transactions to periods of significant under and over valuation.

Managing change

Via a valuation and allocation framework there are plenty of real opportunities to amend the structure of the portfolio over time. TAMRIS's incorporation of liability planning and portfolio construction allows the portfolio to interpret change to the needs of the client in advance. This allows portfolio managers to use changes demanded by significant valuation differences to slowly restructure portfolios for future needs. This saves unnecessary costs in wholesale restructuring of portfolios.

Managing risk and return

An equity portfolio should be a framework for managing risk and return. The benefit of valuation and allocation frameworks is that it forces sales at high relative valuations to the enhancement of return, especially for those with liability requirements, since returns are crystallized. Clients do not get the average long term return, but the abnormal short term return. The greater the diversification, providing segregation, the better is the return and risk management.

TAMRIS's asset allocation processes allow client's existing investments to be retained within the recommended portfolio allocation, thereby reducing costs.

Investment planning interfaces provide the advisor with the same asset allocation, risk, sector and style parameters used by the central investment unit to manage ongoing portfolio structure.

Use of the investment planning interfaces for low risk and equity portfolio management require regular communication of strategy regarding valuation, asset classes and asset allocation.

INVESTMENT PLANNING & THE ORGANISATION

Total Asset Life Cycle Wealth Management services require investment planning disciplines and liability management frameworks. Organisations need to focus and integrate investment management expertise within liability management frameworks to deliver such services.

Incorporating all organisational factors within such systems ensures that "both hands know what the other is doing", that resources, objectives, agendas and services are all co-ordinated.

The centralisation of wealth management services and the heavy investment in financial services software infrastructure have already laid the basis for the introduction of investment planning systems.

WHY INVESTMENT PLANNING?

Some may ask, is this not too complex? Why all the detail? Why the need?

In reality all the issues dealt with by TAMRIS investment planning are issues that surface throughout the portfolio management and investment planning process where the objective is the management of total assets and total financial needs over your clients' life times.

The alternative is to deal with all the issues, individually as and when they arise, than centrally, in advance, in an organised manner and at a fraction of the time and cost to both organisation and client.

TAMRIS agrees that managing financial needs and portfolios is a complex business. It has therefore devised a system and a process to manage and provide simple solutions to complex problems.

Investment planning is in reality the management of the construction, planning and management of assets within a liability management framework. Modern Portfolio Theory only manages assets within asset risk/return space and does not incorporate a liability determinant in portfolio structure.

The TAMRIS Triangle is a representation of the physical symmetry and relationship between assets and liabilities over time. Symmetry is a concept long accepted within physics as key to understanding the natural laws and relationships of the universe. Taking away liabilities from the portfolio decision is similar to disabling Einstein's theory of relativity, since this theory incorporates all elements of the universe.

TAMRIS IS UNIQUE

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i The graph shows ability of a portfolio to meet drawings requirement over lifetimes. It is based on a regular cycle of selling equities to replenish the cash and bonds section. This model is not a projection, but is intended to show only what might be expected to happen based on conservative assumptions of long term growth rates that allow for recessions and stock market crashes. Markets are subject to significant rises and falls; at any given time, therefore, the portfolio may be worth more or less than that shown. All figures are expressed in terms of today's money, based on a long term average rate of inflation which at times may be higher or lower than the current rate.