



**Institute of Actuaries of Australia**

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# **An Actuarial Journey into Financial Planning**

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## **An Actuarial Journey into Financial Planning**

### **Abstract**

The core of actuarial science is risk management which is the practice of identifying, evaluating, and facilitating the implementation of strategies that will assist in mitigating the impact of potentially undesirable future events.

The ultimate risk to manage is that of an individual, given their infinite number of unidentifiable variables and events. Humans are inherently unpredictable and thus present actuaries with the challenge to facilitate their wealth management through financial planning.

Actuaries as risk specialists have the skills required to advise on mapping the way forward, and to be part of the journey as the map is regularly revised.

Actuaries understand both sides of the balance sheet:

- The needs that must be satisfied and
- The investments that can help satisfy those needs.

Whilst we must always be mindful of where things can go wrong, we must also be brave enough to make recommendations which encourage clients to move forward positively.

This paper seeks to document recent experience in the application of actuarial skills to the development and implementation of personal financial planning strategies.

*Keywords: Net Worth Consumption Rate, Lifestyle Sustainability, financial planning, matching assets to needs, collective investment vehicles, risk spectrum, listed income securities, equities.*

**1 Executive Summary**

Initially this paper explores:

- The background against which financial planning is evolving,
- The training actuaries receive and how this equips them to be competent contributors to the financial planning industry,
- The typical financial planning process, and
- The use of collective investment vehicles.

The paper introduces a new concept being the 'Net Worth Consumption Rate' which is a measure of the sustainability of one's lifestyle.

It then proposes a process that can be used for the construction of a personal investment portfolio.

Finally the paper explores the attributes of the major asset classes.

## 2 Background

I found the following comments from Redington useful given the current environment:

*“I peer into the future wondering how it is all going to evolve. It may be that equity dividends may cease to expand; but this is not what we expect because we still have large holdings of equities with a substantial reverse yield-gap. We can hardly rely on being wrong.*

*Perhaps the worst thing that could happen would be a continuance of the downward drift of gilts which deceives us all about what is happening; it conceals the relative rise in the market value of our equities and it lends a false air of normality to the abnormal rise in our running yield. But we cannot contemplate such an answer without distress. It would be continuing evidence of the decay of the self-balancing power of our economy. We can hardly hope for our own problem to be swallowed up in a national disaster.” (Redington 1981 – The Flock & The Sheep)*

*“Today, what then seemed most certain has in many ways proved to be most uncertain, and in science the rigid and somewhat arid era of physical determinism has given way to a more flexible philosophy with probability and statistics as the prominent factors.” (Redington 1952 – Review of the Principles of Life Office Valuation)*

As actuaries we must continue to develop our skills and apply them to an ever changing environment. It is now interesting to observe how we are moving towards a ‘back to basics’ investment environment.

### 2.1 Deregulation, transparency, accountability

The 1980s started a period of deregulation which then led consumers to demand transparency so that informed decisions could be made. This then led to accountability which is demonstrated by the history of the various regulators ASIC, APRA and RBA. Improved information flow leads to informed decisions, better learning and hopefully a successful outcome for all. Given the current economic environment one may wonder if this has occurred. It may be that the amount of data has limited the ability of investors to process information. Volatility could be occurring as investors react to bits and pieces of information, without taking the time to reflect on the overall broader position. Certainly tough penalties are required when erroneous or misleading information is allowed to flow into the market. In addition to directors, company auditors should be targeted so that they are encouraged to undertake proper audits. The integrity of the financial system is critical and the people who participate in it must be 100% accountable.

### 2.2 The end of the ‘Estate’

In his 1982 paper Jenkins used the words ‘warp and weft’ to describe transfers – ‘Transfers are continually taking place between different generations of policy owners in a Life Office’.

Many saw the opportunity to grab the ‘transfers’ and use them for other opportunities and in some cases to finance incredible pay increases for themselves. Accountability processes were not in place. Whilst demutualisation resulted in some of the value in transfers being given to a specific generation of policy holders there was a huge amount of waste.

Whole of life policies in life insurance and defined benefit funds in superannuation have their legitimate place in history and have been a good example of the application of actuarial skills. These arrangements served the financial needs of many generations. Did our profession handle the transition from these arrangements, notably the breaking down or unbundling of these ‘pools of risk’, well?

### **2.3 Change in culture**

The Australian market place is gradually moving from an environment where the product provider is the centre of the process to one that focuses on the satisfaction of customer needs. Financial planning advice is still skewed by the remuneration offered by the product provider resulting in a lack of accurate needs assessment. This will change as the consumer starts to pay directly for the advice.

As we:

- Search for 'equity' by generation,
- Change culturally from community to individual, from mutual to shareholder,
- Continue towards user pays,
- Transfer more risk to the individual from the institution,
- Empower the individual to decide how much risk they wish to take (be it level of insurance or level of investment risk)

Opportunities develop for the financial planning actuary to champion for the individual rather than the corporate.

In terms of wealth management rather than participating in a pool of assets (and so being exposed to the potential abuse of this pool for example by those who manage it) we now have the opportunity to own our own specific 'portfolio of investments'. Technology has delivered:

- Ease of transaction: today trades are done online in a few seconds
- Reduced transaction costs: typically between \$20 and \$40 per trade compared to say 5% 20 years ago
- Computerised Chess Settlement and electronic processing of dividends
- Instant access to company announcements

Progress has meant that clients no longer need to pool investment ownership. We are moving into a new era where financial planning can truly map investment opportunities to financial needs. New processes are developing in the market as individual investors take control of their own destiny and demand investment mediums that match their needs. We are in interesting times as the delivery of solutions through institutional product providers diminishes and more customer centric processes evolve.

### **2.4 Actuaries & financial planning**

#### **2.4.1 An appropriate match?**

A key aspect of a financial planner's role is to structure a client's affairs so that should the unexpected happen, there is a low risk that the client's financial future is compromised. The unexpected could be:

- Sudden illness or death occurring in the family.
- A sudden downturn in equity markets.
- A long period of unemployment.

Risk management is key to the financial planner's role and is an important actuarial skill. Actuaries can use mathematics, through descriptive tools or models, to describe (not define) financial processes. These tools can then be developed into navigation media that can be powerful in the construction of financial planning strategies to guide individuals forward. In this age, information technology will take care of what is quantifiable, leaving the actuary to interpret and listen to the environment. Using descriptive tools and qualitative research the actuary can resolve a way forward.

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Financial Planners get to directly engage:

- Clients trying to resolve a way forward (liability side) and
- The management of companies in which they are recommending clients invest (asset side) through company visits as part of the stock research process.

It is important to take time out to meet personally the forces that create the numbers.

### **2.4.2 A natural step given our training**

#### **Actuarial roots:**

Our actuarial training does give us a sound base upon which we can deliver financial planning advice. It is important to go back to first principles so that we can challenge any bias that has developed in our search for the truth. Constant messages can be incorrectly perceived as truisms and lead to loss if we do not constantly challenge our environment and reset our approach.

Below is a sample of first principles that many of us learnt in our actuarial training:

#### **Security, volatility:**

*That the first consideration should invariably be the security of the capital (Bailey 1).*

#### **Return, interest, yield:**

*That the highest practical rate of interest be obtained but that this principle should always be subordinate to the previous one, the security of the capital (Bailey 2).*

*It should be the aim of life office investment policy to invest its funds to earn the maximum expected yield thereon (Pegler 1).*

#### **Liquidity:**

*That a small proportion of the total funds should be held in readily convertible securities for the payment of current claims, and for such loan transactions as may be considered desirable (Bailey 3).*

#### **Diversification:**

*It will also probably be thought prudent to divide the total amount of deposits among different establishments (Bailey 4).*

*Investments should be spread over the widest possible range in order to secure the advantages of favourable, and minimise the disadvantages of unfavourable, political and economic trends (Pegler 2).*

#### **Community:**

*That, as far as practicable the capital should be employed to aid the life assurance business (Bailey 5).*

*Offices should endeavour to orientate their investment policy to socially and economically desirable ends. (Pegler 4)*

**Trends:**

*Within the limits of the Second Principle (Pegler 2) offices should vary their investment portfolios and select new investments in accordance with their view of probable future trends (Pegler 3).*

**Frost and Hager offered System T:**

- *Security*
- *Yield*
- *Spread*
- *Term*
- *Exchange risk*
- *Marketability*
- *Tax*

**Matching** - Redington – invest in assets which are expected to behave similarly to liabilities.

One extrapolation of the matching principle is to be clear on the purpose of the funds and to find assets that best match that purpose, whilst still allowing some flexibility for the unknown.

**2.5 Matching assets to liabilities**

Projecting assets and liabilities is a core actuarial competency. What is true for companies is also true for the individual. However, instead of mapping out projections for insurance claims etc, one is mapping out the needs of an individual, and assessing whether those needs can be met given their current circumstances which typically consists of:

- Their current level of earned income over their expected remaining work life and
- Accumulated assets.

See Appendix 2 for a sample output from a projection model.

### 3 Assessing financial needs

#### 3.1 Typical financial planning process

The process typically followed by financial planners is to document the following into a statement of advice:

##### 3.1.1 Identify the client

The person who is engaging the work may not necessarily be the client. For example the client could be the grand children or disabled child. Identify who is going to use the resources for which the planning is being done.

##### 3.1.2 Document where the client is at

An appreciation of a client's circumstances should be developed through client engagement. This would include the current and future outlook of assets, liabilities, cashflow, tax, employment, health, family commitments and any other main items of concern

A typical cashflow model might deliver the following output:

		Partner A	Partner B	Total
	Salary (excluding super contributions)	128,218	104,443	232,661
Plus	Super pension	-	-	-
Plus	Gross interest	66	4	70
Plus	Dividends	8,562	1,694	10,257
Less	Tax	(39,624)	(30,342)	(69,966)
Equals	Total Income net of tax	97,223	75,799	173,022
Less	Living Expenses			(120,000)
Equals	Non Super Savings capacity			<b>53,022</b>
Plus	Net super contribution (after tax)	19,985	25,177	45,162
Plus	Govt Co-Contribution	-	-	-
Plus	Super Fund investment Income	37,191	15,897	53,088
Plus	Super fund income tax	(5,579)	(2,384)	(7,963)
Less	Pension	-	-	-
Equals	Total savings capacity			143,309

**Figure 1: Total Savings Capacity**

The term "Total savings capacity" represents the total of

- non-super income after tax and spending, PLUS
- Super contributions after tax. PLUS
- Super Fund Investment income after tax LESS
- Pensions paid out

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The conclusion from this model is that the couple can currently save \$143,309 pa. Note this is a cashflow model so it ignores capital growth/decline. Financial planning requires an appreciation of all items of a client's cashflow, as modelling can then be done which shows the impact of various strategies on cashflow.

### **3.1.3 Where the client is going:**

The list of issues to be covered can be quite overwhelming and take quite a few years to properly resolve. Issues would include retirement planning, insurance and estate planning. I strongly believe that planners must work with clients over a considerable period of time (years). It is unreasonable to expect a single statement of advice to provide all the answers. Instead it is a journey; a series of engagements as clients and planners reflect on circumstances which are then documented into a flow of advice which should be succinct so we do not get lost in paperwork and destroy what should be a refreshing process. The delivery of incremental advice against a dynamic background is very challenging.

This part of the plan covers the client's needs and goals. For example:

- Transitioning to part time work over the next 3 years
- Starting a family
- Retiring
- Renovating the home or upsizing or down sizing

Whilst some of these might be long term it is generally best to move forward in 3 year blocks. The dynamic nature of our world challenges the validity of projections beyond three years. However, it is still most important to have a strategic long term view of where assets are expected to end up.

The approach is to have a detailed understanding of the next few years whilst being mindful of the most likely long term path.

### **3.1.4 How to get there (strategies)**

Recommendations typically address:

- Cashflow structuring e.g. offset accounts, keeping minimal cash in low interest transaction accounts, emergency funds in high interest internet account, using debt to fund investment or life style needs.
- Expenditure review: are some components of lifestyle really necessary? Or are these distracting the client from achieving their goals?
- Personal circumstances or specific issues e.g. funding an elderly parent's retirement accommodation or a child's education costs or divorce settlement. Overall affairs should be organized to deal with what we know.
- Making most of the various tax opportunities available. Note one must be careful of Part IVA of the *Income Tax Assessment Act 1936* regarding anti-avoidance rules for income tax. In particular the primarily reason for a transaction should not be to reduce tax.
- Structures through which to invest:
  - Superannuation,
  - Personal: individual, joint, family trust.
- Investment strategy – identify investments to be retained, investments to be divested and new investments. The strategy would also outline the pace of investing if one is starting from a 100% cash position.
- Insurance issues, estate planning and more depending on the client's circumstances.

### 3.2 Net Worth Consumption Rate & Lifestyle Sustainability

Net Worth Consumption Rate (NWCR) is defined as:

$$\frac{[\text{Annual Expenditure}]}{[\text{Investment Net Worth}]}$$

**Annual Expenditure:** Annual cost of funding regular lifestyle needs including deemed rent on primary residence.

**Investment Net Worth:** The market value of all assets that can be called upon to fund this annual spend.

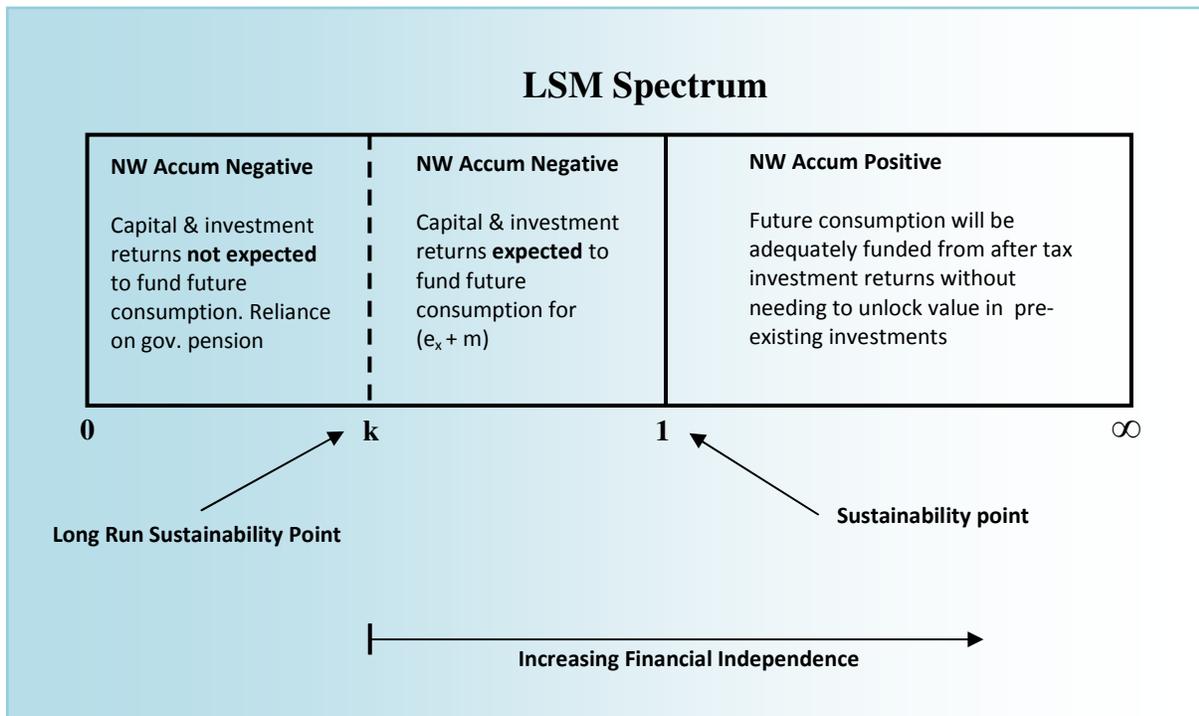
This is a measure of how much Net Worth is consumed annually. If this equals the after tax investment return you would expect your Net Worth to generate, then you have reached self-sufficiency. This leads to the Lifestyle Sustainability Index.

Lifestyle Sustainability Measure (LSM) is defined as:

$$\frac{[\text{After Tax Investment Return}]}{[\text{Net Worth Consumption Rate}]}$$

After tax investment return includes both capital growth and income.

A value less than or equal to 1 potentially indicates that the current lifestyle is not sustainable whereas a value greater than 1 clearly indicates that it is. The uncertainty lies in how the capital component is harnessed to generate cashflow. The figure below details key points on the LSM spectrum. Note that Net Worth Accumulation is abbreviated to “NW Accum”.



**Figure 2: Lifestyle Sustainability Measure**

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The Long Run Sustainability Point (LRSP) “k” is a function of the age (x) of the individual. As x increases, k approaches 0 and vice-versa indicating that the older one gets, the more they rely on the capital they have accumulated rather than the income being generated by their capital or other sources.

### **3.2.1 Purpose of these measures**

The purpose of the NWCR is to measure the sustainability of a current lifestyle. For example, by reducing either:

- The current annual spend or
- The quality of primary residence.

A client can increase their lifestyle sustainability measure. This concept is important in evaluating the impact of estate planning issues, particularly the intention of the primary residence for inheritance purposes. Alternatively, by working longer a client can accumulate more net worth and can then improve their Lifestyle Sustainability Measure.

The lower the net worth consumption rate the more sustainable the current lifestyle, i.e. the stronger the financial position.

### **3.2.2 Deemed Rent**

This is equal to the amount of rent that the client would pay if they sold their primary residence today, and moved into it tomorrow paying rent. The deemed rate will be the market rates if available, or some value around 4% of the market value of the property.

This amount is included even if a scenario calls for the family residence to be excluded from net worth (see inheritance example below) as a benefit is still being derived from use of the property.

Naturally if the client does not own a home, then the rent that they are paying would be included in the annual expenditure as defined above.

### **3.2.3 Scenarios**

Potential scenarios to explore include:

- The effect of leaving the family home for inheritance. The implication here is that net worth no longer includes the value of the primary residence, however a rental amount will still be deemed for the LSM. This will result in a lower LSM and thus less sustainable lifestyle.
- The effect of downsizing the primary residence. Here net worth remains the same, but deemed rent decreases resulting in a higher LSM and thus more sustainable lifestyle.
- Taking out a reverse mortgage on the family home with the expectation that very little equity will be left to the estate. This results in no change of the LSM. This reflects that the only change is that the value of the primary residence is being captured for living, rather than being sold to fund that living.
- The effect of altering the current annual living expenses. Now the full impact of budgeting and changing lifestyle can be extrapolated into lifestyle sustainability.

### 3.2.4 Example

For example if a couple approaching retirement:

- Have a \$1 million in superannuation,
- Own a \$1 million home which would be expected to rent for \$800 per week,
- Have negligible other assets, and
- Require \$8,000 per month to fund their lifestyle.
- If they were to downsize it would be to a \$500,000 home that they could rent for \$450 per week (Scenario 2)
- By downsizing their property and living closer to where they frequent they can use public transport allowing them to sell one car, reducing their monthly spend to \$7,000 (Scenario 3).
- The After Tax Investment Return is assumed to be 5% for the purpose of calculating the LSM.

The Net Worth Consumption Rates are as tabled below:

Scenario Details	Net worth	Spend	NWCR	LSM
With home (Base Rate)	\$2,000,000	\$137,600	6.88%	0.76
Scenario 1 (Home left for inheritance)	\$1,000,000	\$137,600	13.76%	0.36
Scenario 2 (Downsize home)	\$2,000,000	\$119,400	5.97%	0.84
Scenario 3 (Downsize home + no cars)	\$2,000,000	\$107,400	5.37%	0.93

**Figure 3: Net Worth Consumption Rate Scenarios**

A target NWCR at retirement could be less than 10%. Points to note:

- Ten or more years into retirement a couples spending needs are typically about 60% of those at the start of retirement as retirees do gradually slow down,
- If a couple downsized their home after retirement and release significant capital it would be prudent to retain most of this capital in assets with minimal volatility such as cash or term deposits.

### 3.2.5 Further results

Most of the following points are intuitive and continue from above:

- **The compounding effect:** A LSM greater than 1 (accumulating assets) increases the LSM for subsequent years and a LSM less than 1 (consuming assets) decreases the LSM for subsequent years.
- **The investment environment effect:** In a distressed economic environment when capital losses lead to reduced or negative investment return then lifestyle sustainability is diminished and the LSM decreases.
- **The taxation effect:** Having money in superannuation increases the LSM as the after tax returns are higher. Hence *ceteris paribus*, increasing the superannuation balance pre-retirement can assist with lifestyle sustainability.
- **Additional Income Effect:** If there is an additional source of income, adjust the LSM by adding  $[(\text{Additional Income})/(\text{Annual Expenditure})]$

### **3.2.6 Limitations**

It is expected that during the earlier stages of life there will be a deficit between the current lifestyle and the sustainable lifestyle. This occurs because this measure does not allow for the future earning potential of an individual or couple. However, once a client reaches retirement, then the income production is limited to the assets accumulated and the measure is useful. The measure will indicate if there is a need to reduce the quality of housing or annual spend to ensure sustainability.

At present this measure is more of a cashflow adequacy measure. In the future we hope to develop it further so that it becomes a capital and cashflow adequacy measure. To do this we need:

- A time horizon, say  $(e_x + m)$  where  $e_x$  is the curtate expectation of life for people alive at age  $x$  and  $m$  is a positive adjustment for uncertainty.
- A model for expected annual expenditure of an individual currently age  $x$  with current annual expenditure  $\$y$ . This will account for such things as the diminishing consumption expenditure of older retirees.
- A method for determining the value of “ $k$ ” in Figure 2 across a spectrum of ages utilising the above results.

### **3.3 Investment needs**

There are contradictory ideologies at play:

- On the one side a risk tolerance test is normally used as a method of obtaining the risk profile of an investor, the primary focus of this test being on volatility. Simple tools are best so that investors do not get distracted with numbers which can lead to an incorrect understanding of issues.
- Conversely, there is a need to base investment decisions on the future needs and requirements of the investor and the likely assets that will satisfy these, for example, needs could be
  - Regular cash flow – required by retiree for income, required by geared investor for interest payments,
  - Cashflow that grows with inflation,
  - Investment time horizon – when will the assets be called upon,
  - Ultimately where will the assets finish up – all starts have an end.

Further it is a journey where both client and advisor learn along the way and make adjustments. Sometimes when clients claim they understand risk they may not truly appreciate the concept, especially the emotional impact of making a loss. Always be more cautious.

### **3.4 Collective Investment Vehicles**

The financial planning industry typically implements investment strategies through collective investment vehicles, predominantly managed funds. It is common for distributions (typically paid semi annually) to be reinvested. This optimises funds under management and consequently fees for the provider of the investment vehicle. More often than not, the financial planner receives upfront and trailing commissions for offering this referral.

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One outcome of this implementation process is that a client's cashflow needs are typically not met by dividends or distributions but instead by selling units in the underlying fund. This can be quite distressing for clients in bear markets. Some planners resolve this issue for retirees by holding cash equivalent to several years' cash outflow. This way clients may see their cash dwindle but are not forced to exit their position until such time that conditions are more favourable.

There is a place for collective investment vehicles. Two examples are:

- To gain exposure to investments outside an adviser's scope of competency such as international shares, and
- As a medium for small investors.

When collective investment vehicles are appropriate it is preferable to use listed vehicles where there are no commissions involved such as listed index funds (e.g. STW) and listed investment companies (e.g. MLT and AFI).

I challenge the appropriateness of financial planning strategies that are implemented only through the use of collective investment vehicles.

Concerns with collective investment vehicles include:

### 1. **Lack of transparency** on many fronts:

- **Investment cashflow** – Clients cannot see the dividends being delivered by their portfolios and therefore cannot gain a true appreciation of the cashflow their investments are generating.
- **Fees** can be difficult to quantify. Even industry super funds struggle to quantify fees as the numbers get lost in the selected manager's unit price. This then breaks down the accountability process in terms of justification of the fees for the effort expended.
- **Performance fees** deserve special mention as these can be quite significant, for example costs **exceeding 5% pa of funds under management** in a bull market are not unusual. Now there is a bear market the fees paid previously in bull markets are not refunded. The result is an asymmetrical incentive mechanism that can encourage fund managers towards strategies which produce high short term returns in a bull market but with considerably higher risk when liquidity evaporates in a bear market. This results in the investments underperforming. The outcome can be detrimental to long term returns as the investor has overpaid for investment advice in a bull market, and further may be left with a poorer selection of investments which underperform in a bear market. Contrast this against the high personnel turnover in the managed fund industry. Certainly in recent times customers have been paying top dollar for poor advice.
- **Investments** – What does the fund actually own and how risky are those assets? The environment is so dynamic now, particularly with the derivative instruments that exist, that the risk within a managed fund can change dramatically in a few days. Even the fund manager may not appreciate the counter party risk involved and only discovers issues when we have the sort of extreme conditions that have existed in markets recently. The recent collapse of some hedge funds is a good example.

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2. **Costs can be excessive given the outcomes achieved.** Active management fees are frequently charged when a fund manager may well be closely tracking an index. The likelihood of a client paying active fees for index outcome increases if the financial planner combines several fund managers together to achieve diversification.
3. **Excessive reliance on the index benchmark as a measure of risk and performance.** For a retiree, the risk neutral benchmark is cash not an index return. A retiree would take little comfort from a manager whose return was negative 18% against an index return of negative 20%, gleefully claiming to have outperformed the benchmark by 200 basis points. Further, fund managers may align their portfolios more closely to stocks which are significant in the index, yet these stocks may not be appropriate to the investor's circumstances.
4. **Commune effect** – the manager must act for the voters which can result in assets being sold at fire sale prices. For example:
  - Investor requests redemption or a mandate is lost,
  - Manager is required to pay the investor cash,
  - Thus manager must sell.

Margin calls on managed funds can really amplify this issue.

Managers can freeze redemptions but this tends to only be done in extreme situations where there is virtually no liquidity. In recent times there have been examples of stocks falling significantly in the small cap and floating rate note market. The outcome is the investors (both those who stay and those who exit – so at least all are treated equally) receive a substandard price for the investment. People in the know can quite legitimately take advantage of these situations and make reasonable trading profits in the short to medium term, yet these actions have not really contributed anything of value to the broader economy.

This 'commune effect' can compromise the investors ability to cope with a 'stressed environment' as the investors own personal circumstances are not the driver but instead the collective circumstances of the group will drive the outcome. In summary, a direct investor can hold a stock and sell in a more favourable environment, where as a unit holder in a managed fund must accept the fund manager's decision.

5. **Lack of diversification** – top 10 stocks tend to be 50% of the fund – so one or two stock selection errors can destroy 10% or so of value.
6. **Corporate actions** - Inability to take advantage of particular 'corporate action opportunities' that specific stocks might present, for example participation in share buy backs to utilise exceptional franking credits which can be worthwhile for a tax exempt pension fund.
7. **Fund managers are typically not assessed on an after tax basis**, hence there is typically little consideration given to capturing franking credits or managing capital gains. Normally investors don't identify a capital gain issue until they go to complete their tax returns which will be several months after the end of the financial year, by which time it is too late to initiate strategies to manage the tax outcome caused by the capital gain.
8. **Lack of control** – the investor has no control over the timing of the receipt of income and capital gains, and the level of gearing. Individual investors can time the buying and selling of shares around ex-dividend dates either to avoid or capture dividends. It is important to be aware of the 45 day rule with respect to franking credits.

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9. **Less consumer centric** – there is the challenge of engaging a big institution should customers need to do something unusual, possibly due to a recent death in the family. Institutions by their nature are less consumer focused and so less likely to take special actions for specific customers. A good example is when it is necessary to back date the transfer of ownership of an investment from one entity to another:
- For listed securities these are easily implemented as off-market transfers whilst for
  - Managed funds:
    - Back dating is normally not possible,
    - Investors may incur stamp duty,
    - Investors may incur buy/sell costs as managers sell units for one entity and buy them for another.
10. **The suitability of the valuation applied to unlisted assets** such as direct property and infrastructure investments. Note these are significant within some industry funds.

Overall collective investment vehicles:

- Can be a black box when compared to direct investing,
- Do not facilitate as easily an appreciation of the way the investments are supporting the client's needs and
- The level of client engagement is not as healthy.

## **4 Guiding principles for portfolio construction**

### **4.1 Establishing investment objectives and measuring success**

Firstly when formulating investment objectives one must be clear that there are no infallible laws of nature for investing. For example, over any one time horizon, there is no guarantee that investing 100% in equities will provide a return in excess of inflation. It is difficult, as investors do not like uncertainty.

Secondly it is important to have accountability processes in place or learning mechanisms so that errors can be identified and resolved quickly.

Examples of possible objectives could be:

- 3 years living expenses to be safely invested in cash and/or term deposits. Given that bear markets can last over a year, 3 years may be prudent. Note, that the current bear market so far has lasted 16 months since November 2007.
- Stable income at least equal to 'regular' living costs (for a retiree) or cost of loan (gearing program). Historically the income return has been fairly reliable and stable but in the current environment with an unprecedented 4% drop in cash interest rates this is no longer the case.
- Downside highly unlikely to exceed 25% within a one year time horizon.

It is important to note that objectives cannot be guaranteed. Investors must appreciate that there is risk and be comfortable with the mechanism used to manage risk. It is dangerous to commit to achieve a return of  $x\%$  or a return of  $y\%$  above inflation as the one thing that is certain is that the outcome will be different (higher or lower).

Further an investor may also introduce constraints such as avoiding investments which are clearly destructive to the community. A side comment here is that promising to be 100% socially responsible is not possible because we all are interconnected in the one community, i.e. a company considered socially responsible will in the normal course of business engage and profit from relationships with companies considered socially undesirable, for example a bank's relationships are unlikely to be entirely with socially responsible entities.

### **4.2 Establish the financial planner's scope of competency**

It is important that the financial planner identifies the universe of investments where he/she has expertise and stays only within this universe. If the planner does not understand how a particular investment works, the planner should not recommend it.

### **4.3 Establish investment groupings**

Historically financial planners have used the following asset classes (in rough order of risk) to group investment opportunities:

- Cash and fixed interest,
- Property (Listed and unlisted),
- Australian Equities, and
- International Equities.

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The issue is to have groupings where the investment opportunities in each group are reasonably consistent from a 'risk' perspective. The word 'risk' is used loosely here. It is the thinking that goes into the process rather than the mathematics that counts.

A more refined list of groupings could be:

- **Cash** at call.
- **Term deposits** and government bonds (as these are for fixed periods of time they carry interest rate risk which can be significant for example in the 6 months to February 2009 5 year term deposit rates moved from 8% to 4%).
- **Income bearing Mortgage Income Funds** which lend conservatively e.g. residentially with loan to value ratios below 70%.
- **Income bearing Bank issued listed income securities** such as preference shares.
- **Income bearing Non-bank issued listed income securities** such as preference shares.
- **Shares in 'stable' companies** Stable = consistent earnings, resilient business model, competent management, acceptable debt, operation in desirable sectors of the economy, minimum surprise expectation, ability to anticipate issues and cope with change, zero key person risk so as to have a deep pool of resources from which to draw expertise.
- **Direct residential property** in a suburban location or commercial property under a long lease with credible tenants.
- **Shares in 'less stable' companies.** These could include cyclical industries and small cap stocks where a single issue outside of management control could tip the company over.
- **Residential or commercial property that is currently un-occupied.**
- **Shares in 'high risk' companies** which have an issue that creates instability but where the investor believes management has the competency to navigate through this e.g.
  - Stocks which are travelling close to banking covenants,
  - Start up companies yet to establish credibility.These would be for high risk investors.

Ranking investments along the spectrum is a subjective process. The rankings can change through the economic cycle. It is important to identify attributes which may result in expectations not being met and then to resolve investor tolerance given those attributes.

Particular stocks could move along the spectrum in both directions. For example a corporate restructure can result in a change in the company's risk rating, for example the acquisition of Coles by Wesfarmers. Further these events can happen with no warning resulting in an expected increase in risk in an investor's portfolio, and there is nothing an investor can do about correcting this until it is too late. In a way a 'growth asset' could become a 'hope asset'.

### 4.4 Rank the investment groupings against a risk spectrum

One end of the spectrum:

- 100% income = 100% 'cash' at call. These assets are expected to be stable generating no capital growth but providing liquidity to support needs. 'Cash' is a loose term and we could do with greater regulation over the use of this term. Beware of cash that is not cash. For example enhanced cash where the provider might be investing in bank issued preference shares or floating rate notes which do provide a regular income but are not capital guaranteed. Note some of these securities have fallen by over 20% in recent times. Cash must be 100% pure. Prior to the government guarantee the strength of the institution behind the cash was critical, and this will

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again be the case when the government guarantee expires. It is prudent to spread term deposits between banks to achieve that extra level of security.

The other end of the spectrum:

- 100% growth = no dividend expected for the foreseeable future. For example a start up company. These assets are expected to be volatile in value but provide long term capital growth and potentially an income stream that grows with inflation. These assets can generate significant losses or gains

A balanced investor would broadly have an equal split between income and growth.

A more aggressive investor would have more growth assets whilst a more conservative investor would have more income assets.

### **4.5 Determine a target proportion to be invested in each grouping**

After the planner's assessment of the investor's circumstances, a long term target is established possibly with a series of steps to achieve this. This could reflect a desire to migrate from less risky to more risky investments or vice versa.

The planner would consider issues like the investor's liabilities, age, future needs and the Net Worth Consumption Rate.

### **4.6 Establish diversification rules**

No matter how good it looks it can still go wrong.

In an uncertain world nothing is certain and therefore diversification is critical even for something as apparently stable as term deposits. Mistakes will be made so one can never be sure of oneself. One could be basing decisions on erroneous information e.g. OZL, ABS. Culture creep by way of gradual tolerance for unacceptable behaviour can result in situations developing to an unacceptable level before action is taken. Distressed environments like the current one result in these being flushed out more frequently.

Further corporate actions or new projects (items of confusion) can muddy accounts, making it difficult to identify issues and understand the business.

#### **Broad rules could include:**

- No more than 5% of Net Worth should be invested in any one stock or its derivatives. For example if the client owns ANZ and ANZ issued floating rate preference shares (ANZPB) then the total of these 2 investments is kept under 5%. One outcome could be that the investor finishes up just holding the preference share rather than the direct stock.
- No more than 15% exposure to the term deposits of a single bank. For example if 45% is allocated to term deposits then these would be spread across three separate banks. Whilst we currently have the government guarantee this will eventually pass.
- At least one third of the allocation to term deposits to be with one of the four major banks.
- Term deposits for terms greater than two years to be with one of the four major banks.

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Diversification guidelines for equity could include:

- a series of 'stable' shares with 2% to 5% in each. Could be 70% of the overall equity allocation.
- a series of 'less stable' shares with 1% to 3% in each. Further could limit these to 20% of the overall equity allocation,
- a series of 'high risk' shares with 0.5% to 2% in each. Further could limit these to 10% of the overall equity allocation.

One must be aware for equities of linkages between stocks which might be expressed by grouping stocks by sector or theme. The issue is to manage the level of correlation in the portfolio by monitoring the level of exposure to specific influences. Note though that correlation measures derived from historical data can be poor predictors for future correlations. Stocks may be categorised in different ways. This may be by sector, defensive versus cyclical, by interest rate sensitivity or by exchange rate sensitivity to mention just a few. The possible categories are endless.

### **4.7 Implementation process – the journey must begin**

In these times it is difficult for a new investor to even move from cash to a term deposit. I always encourage investors to make a start and assemble a collection of investments. It is important to be cautious and prudent whilst moving forward incrementally. In the current environment (February 2009) for a retiree this could be:

- Cash.
- A few term deposits with terms from 3 months to 3 years with a spread across the curve, as I do not like to take bets on movements in interest rates.
- A selection of income bearing bank issued listed income securities.
- A mix of Australian shares at individually set price limits. If the shares do not fall below the price limits, the investor does not get the shares.
- A modest investment property yielding around 4% if the size of the portfolio is large enough. Note direct property can be a hedge against inflation

Once shares are trading around their intrinsic value, consideration can be given to 'supporter timing variables', for example:

- Directors buying and selling.
- Institutional activity e.g. index inclusion or exclusion,
- EPS revision momentum: e.g. if there is a downward trend and you are not sure all the bad news is out, so
  - If you are buying you might wait a few months, or
  - If selling you might sell straight away,
- Substantial shareholder notices,
- On market share buy back, and
- ASX queries regarding continuous disclosure.

## **5 Construction of Investments within each Investment Group**

### **5.1 Cash**

Cash is a core component of any portfolio. It is often seen by investors and clients alike as being the risk-free component and thus is one area where clients will not tolerate errors. An important consideration at this stage is the liquidity requirements of the client along with a comprehensive map of realised and potential cash flow concerns. This is a classic matching issue. It may be necessary to hold enough cash to cover 1-3 years of expenditure. Other issues include:

- Not being exposed to a particular view on interest rates
- The possibility that high inflation may occur again, partly as a planned way out of the current financial crisis.
- The possibility that a particular institution may experience severe financial stress in the future.
- Being mindful of people's circumstances, such as age, when committing money for terms over 12 months.
- Most importantly, that cash is seen as the capital secure portion of a client's portfolio. One must not compromise the safety of capital by chasing an additional few basis points.

In terms of the mechanics of the cash component of a portfolio, one could utilise the following:

1. A Cash Management Transaction account.
2. A "high interest" savings account.
3. Term deposits.

#### **5.1.1 Cash Management Account**

This is the core transactional hub which all investments are run through. Depending on client circumstances, it would be advisable to hold, as a minimum, cash equivalent to 3 months of regular outgoings. A point to note is that there will be continual dividend and interest flow into this account from investment activities, although this is semi regular in nature.

#### **5.1.2 "High interest" Savings Account**

These accounts typically tie directly to the transactional account indicated above (and usually only this account) and have an interest rate above that of standard bank accounts. This is included in the highly liquid cash components of a portfolio and is typically used as a reserve for unusual or unexpected transactions such as unanticipated trading activity, rights issues, emergencies or otherwise.

#### **5.1.3 Term Deposits**

Another important tool to utilise in the cash of portfolios is term deposits. These, often thought of as a straight forward component, can be overlooked as a part of the portfolio that requires attention.

It is just as important to diversify with term deposits as it is within equity portfolios as the consequences of not doing so can be catastrophic. To this end it seems prudent to include a spread of terms initially, say 3, 6, 9 and 12 months, and then put these across different institutions, say the 3 and 9 month with one bank, and the 6 and 12 month with another. When these 4 term deposits mature, they could be reinvested for a term of 12 months each, and thus a rolling set of term deposits has been created. This rolling set of term deposits then averages out exposure to changing rates and institutional risks.

If desired, it is possible to lock in rates by purchasing longer term deposits or Commonwealth bonds.

### 5.2 Listed Income Securities

Listed Income Securities (LIS) are securities where the income rights of investors are defined. Some are debt issues but most are in the form of preference shares. Listed Income Securities are an investment where the mathematical aspect of actuarial skills can be applied.

#### 5.2.1 Appropriateness of LISs for Clients

When determining the appropriateness of LISs for a client, two important factors should be considered:

1. Liquidity
2. Exposure to the issuer

With respect to liquidity, if the investor wishes to sell down or liquidate their position, there may be no buyers at a reasonable price. Likewise if the market fears that the underlying issuer will crash then the listed income security can crash as well. In these scenarios, the most appropriate option may be to retain the holding. The last thing an investor would want to do is force a sale at an unreasonable price. An example is AEYG which floated in September 2004 with a face value of \$100 and a coupon exceeding 10% pa. In September 2006 the series was redeemed at face value. However, in late 2005 and early 2006 the price fell below \$60 and stayed there for some months as a prominent broker sold their clients out of the series.

Regarding exposure, when investing in these securities in combination with shares in the underlying issuer, it is important to add both the value of the Listed Income Securities and the value of the underlying shares. For example, if the investment strategy says no more than 5% in a specific company and the investor owns both ANZ and the preference share ANZPB, then the sum of ANZ and ANZPB should be under 5%.

Other issues and risks are mentioned in 5.2.5.

#### 5.2.2 Key Features of the Income

The key features of LISs vary dramatically and it is vital to read the fine print in the prospectus to establish the rights of the investor and the conditions of maturity (discussed below). With these instruments, the primary concern is with income. This can vary as follows:

- **The regularity of interest payments:** Payments are typically paid quarterly although it is not unusual for them to be paid half yearly.
- **The size of payments:** Some payments are variable based on a margin over a benchmark such as the 90 day bank bill rate (Floating Rate Notes) while some pay a fixed coupon (Fixed Interest Securities).
- **The tax components of payments:** Payments may be franked in which case they would be 'preference shares' and so a form of equity capital.
- **The right to receive payments:** Payments are cumulative or non-cumulative. Non-cumulative payments remove the obligation from the issuer to make a payment that they miss. This is obviously a point of concern given that the modelling surrounding these securities assumes that payments will be made.

### **Risk with non-cumulative CPS:**

In the case of non-cumulative 'preference shares' if the underlying issuer does not make a profit then the investors may not get a payment. Investors rank before shareholders. By issuing preference share capital a company is effectively mortgaging its underlying profit. If a company raises more preference share capital then it can compromise the security of existing preference share holders whereas if a company raises 'direct' equity capital it enhances the security of the preference share holders, as long as the funds are used to generate profit.

### **5.2.3 Maturity Scenarios**

At maturity there are a number of possibilities which will be specified in the prospectus. Often determining the exact nature of the maturity conditions can be difficult. Common examples include:

- **Note is redeemed:** Examples include PCBPA and PWSPA. The investors received the face value of these notes on the maturity date.
- **Note is perpetual:** In this case there is simply no maturity date and the note continues.
- **Note converts to shares:** Called Converting Preference Shares, at the maturity date these convert into a number of the underlying securities, usually with a modest conversion discount.
- **Note "steps up":** At the reset date, the margin or rate applied increases and the note continues without being redeemed.
- **Issuer Takeover:** Listed Income Securities are typically redeemed when companies are acquired e.g. the acquisition of St George by Westpac resulted in various St George notes being paid out at face value.

### **Risk with conversion:**

Conversion can be subject to the share price of the issuer being above a certain level e.g. SUNPB, ANZPB, CBAPB, WBCPA. If the share price is below the specified level the note continues paying coupons until the price recovers to the prescribed level. This introduces another dimension of risk in the pricing of these securities as ideally the investor would desire shares rather than a potential perpetual note.

### **5.2.4 An example of what happens at maturity - ANZPA**

In early July 2008 ANZ sent out conversion forms where the investor could elect to exchange the ANZ preference shares for either cash or ANZ shares at the discretion of ANZ. All our investors voted to exchange rather than continue as ANZ preference shareholders.

In early August ANZ then decided that it would automatically convert all ANZPA securities into ANZ shares with a 2.5% discount from face value. This was effectively a 'shadow' equity raising by ANZ.

August 2008 if the investor retained ANZPA they would receive for each \$100 face value:

- a dividend on 15/9 of \$2.19 (ex date is 25/8) and
- \$102.56 worth of ANZ shares on 15/9

which totals to \$104.75. On 14 August 2007 the investor could have sold ANZPA for \$103.90. This is a difference of 85c which represents 1 month's interest on \$103.90 at around 10%.

I recommended clients sell pre conversion as investors bought ANZPA as a cash/fixed interest security so as to retain portfolios within their benchmarks I felt it was too big a mismatch to run at this point in the cycle. But I did note:

- Any capital gain is treated as income,

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- There could be traders shorting the market as many holders which have it as a 'quasi cash investment' cannot hold shares so they will sell (like us), and
- ANZ might have run up post conversion although I did not expect it to as there would probably be some selling at the margin once the conversion happens.

### **5.2.5 Other Issues & Risks**

#### **Solvency Risk & Price:**

Listed Income Securities can fall significantly in value if there is concern about the underlying issuer's solvency. If there is a high possibility the issuer will be acquired by a better rated company then a potential investor might buy in the hope of getting a profit should the note re-rate after acquisition. This is a topical issue with the current Suncorp Metway notes.

#### **Strength of Issuer:**

The strength of the underlying issuer is critical. Conceptually the investor is buying income linked to the strength of the underlying issuer. Bank issued securities would be considered more robust than those issued by an industrial company like Fairfax.

#### **Capital Stability:**

In a way bank issued securities are an instrument where the income is stable but the capital value is volatile. These securities may be a way for a long term investor to achieve an income yield higher than that available on a term deposit (currently around 2% higher as at January 2009). If held for the long term then this may be achieved, while conversely if they are sold now then there will be a loss and the term deposit would have been a better option. There is risk which is why the return is higher than a term deposit and highly risk adverse investors should just do term deposits.

#### **LISs Movements Recently:**

The 'credit crunch' has resulted in:

- The margins on these increasing significantly. For example, bank issued securities commanded a margin of around 1% over bank bill 2 years ago, this increased to around 2.5% over bank bill 9 months ago (e.g. ANZPB) and is currently around 3.8% over bank (e.g. the recent Westpac raising) and
- The purchase price falling. Many bank issued listed income securities that existed in 2007 are now (March 2009) trading 30% or more lower. Some might view this as a good entry point into these securities.

As bank bill rates have dropped, coupons have fallen, just as interest rates have fallen for term deposits.

### **5.3 Listed Property**

This sector has fallen heavily in recent times. This is an area where significant damage has been done to investors' portfolios. Many planners adopt a philosophy of not trying to time the market too significantly so whilst many reduced exposure to this sector a little as a tactical move this did not help much when some of the trusts retained crashed 90%+. Broadly listed property portfolios lost 70% of value in the 2008 calendar year.

Whilst the underlying investments, of many trusts were considered to be attractive and to have a sustainable value longer term, the value of trusts collapsed primarily because of excessive financial engineering on two fronts:

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- The high level of debt trusts carry in what is now developing into a deflationary environment; and;
- Unrealised losses on derivatives, particularly currency hedges, as the \$AUD fell sharply.

Further the overseas expansion of several trusts who over paid at the top of the cycle has not helped. Concerns are also emerging as to the sustainability of the commercial rents currently charged in retail centres, as location may not generate turnover particularly in a recessionary environment.

The commercial property market is highly illiquid and trusts are reluctant to sell as this then forces the recognition of depressed property prices and will then result in many trusts potentially being in breach of debt to value covenants.

What this means is that:

- Whilst trusts can service their debt from a cashflow perspective and also pay distributions i.e. rental yields based on book value still exceed debt costs and so debt is earnings accretive.
- Property values have fallen (particularly if 'fire sales' are forced in the current environment). If the fall in value results in covenants being breached, then this allows banks to re-negotiate and basically force the trusts to pay higher interest rates.

The outcome is trusts cancel distributions as cashflow is forced towards the bank and further many trusts could find themselves run by the bank and so effectively worthless.

Centro is a good example where the banks are keeping the company alive, as the yield the banks are getting on their capital exceeds what the banks would get if they forced a liquidation and received a fire sale value for the properties below the loan values. One possible scenario for Centro is the banks may eventually sell the assets when their value equals the loans outstanding and so current unit holders receive zero. If this occurs most likely the prices the banks sell at may not reflect long term value. So the outcome could then be that current unit holders do not get a return that reflects the long-term value of their investment. The existence of the debt covenant has allowed the bank to disturb the equation. Pro-active listed property managers have been raising capital in an effort to keep well away from banking covenants.

One debate that will emerge is the level of bad debt provisions the banks should make for the Centro loans, yet it is possible the banks will eventually recover their full loans and earn a handy return along the way.

The high likelihood of the Centro experience being repeated across the industry adds to the negative sentiment towards listed property.

One fundamental principle of investment is to structure affairs so that there is minimal risk of being forced into a short-term transaction which does not reflect long-term value. Obviously in regards to LPTs this principle has been broken.

At this point (January 2009) my advice is:

- Not to add any further funds to the sector but instead wait until some precedents are set in terms of how trusts unwind their current levels of gearing. It is best to wait until we start to hear how it unfolds.
- Sell out of property trusts where losses are not significant (like some of the office trusts) and invest the proceeds in term deposits.

Historically, planners have treated listed property as a separate asset class, contrasting the returns achieved over the last 30 years by property with the other asset classes. But property trusts are inherently different today than they were 30 years ago, with most of this change occurring in the last five years. In

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particular the level of gearing has steadily increased and there is also a much greater property development pipeline with all the associated risks. An analysis of property trust returns over the past 30 years is not appropriate in deciding whether to invest in this sector over other sectors.

Going forward, listed property (not direct property) could be combined with infrastructure (e.g. airports, harbours and toll roads) and treated as a separate category within the Equity grouping.

### 5.4 Equities

#### 5.4.1 The purpose of investments in equity markets

The economy requires investment to move forward. There is a ‘natural order’ in that if the return offered is not adequate the investment will not occur, i.e. the return on equity capital must exceed the cost of debt. Much has been written on concepts around Adam Smith’s ‘Invisible Hand’ and in more recent times the ‘equity risk premium’. I think it is a leap of faith – you can search for numbers but in a changing world these may not be valid. Over the long term, discipline does prevail such that when investment decisions are made profit is one of the required outcomes and so investors are rewarded. Specific investments will fail as there is always risk but the economy operates in such a way that the pool of investments to which it commits delivers. Ideally government policy supports this stance.

#### 5.4.2 Purpose of a Model portfolio

No one portfolio will ever end up being the same. The purpose of a model portfolio is to ensure that all portfolios continuously converge to a standard (although this is often impossible and/or impractical). The overarching ideal of the model equity portfolio below is to extract and unlock the value of equity markets in a cost effective and efficient way.

Clients may decide to include other investments into their portfolio, but the engine driving fundamental portfolio construction is universal.

#### 5.4.3 Building a Model Equity Portfolio

There are many theories on how to construct equity portfolios. The following focuses on risk mitigation through diversification of sectors and companies, a relatively standard approach that promotes rigour in construction and diversification.

A model portfolio is constructed by GICS sectors, each with a number of stocks in preference order. Shown below is an example for explanatory purposes.

GICS Sector(s)	Weights	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Materials & Energy	25%	BHP	WPL	ORI	NCM	RIO
Consumer Staples & Discretionary	25%	WOW	DJS	MTS	WES	
Health Care	25%	CSL	COH	SHL		
Financials	25%	WBC	CBA	ANZ		

*The shares listed above have been selected for illustration purposes only*

**Figure 4: Model Equity Portfolio**

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First and foremost restrict the number of stocks within the model (to around 50) and within each sector. The importance of this is two-fold:

- Firstly, one must restrict the universe of stocks that are covered ensuring both an adequate variety and appropriate exertion. There is a limit to the number of stocks a financial planner can keep on top of.
- Secondly, putting a cap on the number means that when a stock is added, one must be removed. The ramifications of this across 100s of portfolios that follow the model can be huge, requiring that decisions are made appropriately and without careless disregard for investor's circumstances.

One must note that this universe of stocks will be used to drive portfolio construction over many portfolios and as such not all the stocks included in the model (~50) will end up in client's portfolios. Depending on client and market factors, some stocks will be removed from possible selection by the portfolio management engine.

The second column above indicates the target sector weightings for the model portfolio. This would initially be compared against individual portfolios to ensure that the appropriate sector diversification is achieved. Resolving these weightings is quite complicated and should be constructed with careful consideration of current economic indicators, current market sector composition and investor preferences among other things. As an example, in a bear market there may be a higher weighting to defensive sectors (consumer staples).

Unless excluded by client requirements, most portfolios should contain Tier 1 stocks across the various sectors. As the need for further diversification exists within sectors, we look at the higher tiered stocks. These are selected in preference order.

The preferencing system facilitates the decision making process, allowing stocks to be removed more easily (tier 5 stocks removed first when adding in a new stock) while streamlining the decision making process across a large number of portfolios. Preferencing is based on quantitative and qualitative measures outlined below.

As stocks are included and removed, the model is updated. From this model, portfolios are built and adjusted as necessary. Decisions as to which stocks are to be included in portfolios are made centrally, and then this flows down to individual portfolios. It is at the investor level that personal preferences and desires are factored in. The purpose of this methodology is to separate:

- The stock selection process (which is made through the investment model) from
- Individual portfolio construction (which is made at investor level after consideration of the investor's needs).

The outcome of this is that one has equipped the financial planner with the tools required to effect the desired outcome. Thus this model is used as a guide and not a set prescription.

Where a portfolio contains lower yielding stocks, consideration could be given to establishing a process of selling down these holdings at 3 yearly or so intervals so as to capture the growth.

#### **5.4.4 Selecting Stocks – Quantitative measures**

It is important to be comfortable with a stock's metrics and to regularly review these which include the following:

- Price Earning ratio,
- Yield + franking,
- Earning Per Share growth,
- Measures of debt = Debt/Market Cap or interest cover,
- Cashflow and stability of cash flow,
- Market Cap,
- Price Volatility (buying at limits versus buying at market), and
- Price entry and exit points. There is a place for limits, but not when they significantly diverge from current market prices.

#### **5.4.5 Selecting Stocks – Qualitative measures**

Now more than ever there is a need to look beyond the data and focus more on the quality of the company. The importance of company visits cannot be over emphasised, allowing analysts to “touch” and engage the forces that create the data.

A scorecard approach in this area can be successful which includes ranking from 1 to 5 the success of companies in achieving the following qualitative results:

- Business model
- Stability of management – Entries and Exits etc
- History of consecutive profits and dividends
- Debt structure and covenants
- Currency risk
- Commodity risk
- Depth of management – Experience in years and range of relevant experience.
- Skill of management:
  - discipline in pricing of product/services. ROE
  - discipline in project execution
- Respect for capital – Not wasting resources
- Product/Service Diversification
- Time in existence – crude measure of insolvency risk
- Core strategic flexibility – ability to adapt
- Corporate Discipline
- Themes – see below
- Corporate Social Responsibility

These scores could be reviewed annually following company visits or following any key announcements.

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Another qualitative measure could be the relevance of the stock to future growth sectors or “themes”. Examples of themes are:

- Aging population (Funeral, Aged Care, Health, Diagnostics, Hospital)
- Health and Health Awareness
- IT
- Growing population and affluence
- Recession
- Infrastructure
- SE Asia development/China

### **5.4.6 When to exit a stock**

Removing stocks is just as crucial as selecting stocks. Each stock must justify its position in the portfolio. It is important to limit the number of stocks, both in total and per sector and to enforce this. Thus any addition of a stock will result in the removal of another stock. There needs to be some basis other than “this looks good” to get into a stock. The attitude of “this looks better” needs to be adopted.

## 6 Conclusion

Overall from my own experience I cannot emphasize enough the importance of:

### **Diversification:**

Financial advisers can make mistakes (if this is the correct word to use) which result in customers investing in stocks which go insolvent or have a high risk of doing so. By investing in a broad range of shares the damage done to a client's portfolio is less. One outcome of investing directly is the 'mistakes' are transparent compared to a managed fund where they can get 'lost in the wash'. Remember the person who never made a mistake never learnt – so never think that every single stock you invest in will be a winner. The client engagement that comes about from a direct investment approach ultimately leads to a superior outcome.

### **Holding adequate cash and term deposits:**

For recent retirees aged in their mid-sixties at least 20% and preferably more should be held in cash and term deposits. For older retirees aged in their late-eighties the percentage allocation to cash depends on the circumstances. For example if:

- Cash is highly likely to be required to fund entry to a nursing home, and
- It is highly likely the retiree's assets will be liquidated upon their death,

then an 80% allocation to cash would be more appropriate. Retirees or their heirs may not want to be forced to realise losses in a depressed market. Conversely in an inflated market it may be more appropriate for capital gains to be taxed in the retiree's name. In these cases, as retirees progress through retirement, it is important to have a process to reduce exposure to more volatile assets.

### **Gradual execution of planning strategies:**

It is critical in a volatile world that strategies be executed slowly. This creates an opportunity to address erroneous assumptions both on the asset and liability sides. Furthermore, it allows space to review strategies and get comfortable with the path forward.

### **Dollar Cost Averaging:**

This is one potential way to minimise market timing risk and illustrates the concept of gradual execution with regard to *investment* strategies.

### **Having sound reasons for each action:**

Do not get greedy. For example at Berry Actuarial Planning we do implement gearing programs funded by drawing on home equity but we establish a limit and keep within that limit. As a business we do not implement gearing programs funded through margin loans as the investor can lose control of their portfolio in severe market downturns. My 'philosophical view' is that gearing strategies built on margin loans are too risky as it is difficult to achieve the additional 1.5% to 2.0% return required over the typical house mortgage rate to justify these strategies. This additional hurdle introduces significantly greater risk.

### **Regular Client Engagement:**

Be a good listener, keeping an awareness of where the investor is travelling in life, and from this continually challenge the suitability of assets within portfolios noting changes in investor's circumstances as well as the market.

## **An Actuarial Journey into Financial Planning**

### **Limited use of Collective Investment Vehicles:**

I challenge the appropriateness of traditional financial planning strategies which are executed entirely through the use of Collective Investment Vehicles. I observe the following misconceptions:

- The market is always efficient
- Professional managers have more insight than individuals
- Collective investment vehicles are low risk

### **Closing Comments:**

A key point is to not get distracted with complex mathematics and overly quantifying precise forecasts which are inherently qualitative.

I hope that this paper serves to demonstrate that actuaries can be part of the continual evolution of financial planning.

Consideration could be given to the development of a specialised financial planning course for actuaries which would be recognised by both ASIC and the Australian Taxation Office.

Overall financial planning is about guiding the creation of wealth and maintaining this wealth. For most, wealth creation comes from the 'fruits of our labour' and not the execution of risky investment programs.

Actuaries can provide a financial framework including measures like the 'Net Worth Consumption Rate' to guide clients forward.

*"Today, what then seemed most certain has in many ways proved to be most uncertain"* (Redington 1952). Further to Redington's comments, actuaries have a role in unravelling this uncertainty and making financial sense of the future beyond that which has been traditionally perceived. Taking our skills beyond the traditional areas we can seek to further solidify the profession and help investors on an individual level achieve their goals, and facilitate the unravelling of their uncertainties.

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## 8 Acknowledgements

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- **Mark Hancock:** Mark provided initial guidance with constructing the paper, spent many hours reviewing the paper in detail and finally guided me in developing my conclusion.
- **Anonymous:** The second peer reviewer wishes to remain anonymous. He constructively challenged much of my thinking with one outcome being that I renamed the paper.

I also acknowledge the contributions made by my staff:

- **Alex Zborowski:** Who regularly reviewed drafts and helped develop the Net Worth Consumption, Lifestyle Sustainability and equity sections.
- **Kevin Wu:** Helped with the cashflow and the collective investment vehicle section.

## 9 Appendices

### 9.1 Appendix 1 - ASIC Requirements

RG 175.104 states:

*Where advice relates to financial product(s) with an investment component, we consider that the 'relevant personal circumstances' of the client will normally include the client's:*

- (a) need for regular income (e.g. retirement income);*
- (b) need for capital growth;*
- (c) desire to minimise fees and costs;*
- (d) tolerance of the risk of capital loss, especially where this is a significant possibility if the advice is followed;*
- (e) tolerance of the risk that the advice (if followed) will not produce the expected benefits;*
- (f) existing investment portfolio;*
- (g) need to be able to readily cash-in the investment;*
- (h) capacity to service any loan provided for a financial product; and*
- (i) tax position, social security entitlements, family commitments, employment security and expected retirement age.*

*Note: This is not an exhaustive list. The client's relevant personal circumstances (as defined in s761A) include any other matter that would reasonably be considered to be relevant to the advice. This would normally encompass any matter that the client indicates is important.*

RG 121.74 states

*Generally, if you are the providing entity and the financial service is the provision of personal advice to a retail client, you must:*

- (a) make reasonable inquiries into the relevant personal circumstances of the client and have a reasonable basis for the advice (s945A);*
- (b) warn the client if the advice is based on incomplete or inaccurate information (s945B); and*
- (c) give the client a Statement of Advice as defined in s761A if the value of the financial investments in relation to which the advice is provided exceeds \$15,000 (s946A and reg 7.7.09A).*

## An Actuarial Journey into Financial Planning

### 9.2 Appendix 2 - Stock Codes

ABS	A.B.C. LEARNING CENTRES LIMITED
AFI	AUSTRALIAN FOUNDATION INVESTMENT COMPANY LIMITED
ANZ	AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED
ANZPB	AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED CONVERTIBLE PREFERENCE SHARE
BHP	BHP BILLITON LIMITED
CBA	COMMONWEALTH BANK OF AUSTRALIA
CBAPB	COMMONWEALTH BANK OF AUSTRALIA. PERPETUAL EXCHANGEABLE RESALE LISTED SEC.-PERLS IV
COH	COCHLEAR LIMITED
CSL	CSL LIMITED
DJS	DAVID JONES LIMITED
FXJ	FAIRFAX MEDIA LIMITED
FXJPB	FAIRFAX MEDIA LIMITED CONVERTIBLE PREFERENCE STAPLED SECURITIES
MLT	MILTON CORPORATION LIMITED
MQCPA	MACQUARIE CPS TRUST CONVERTIBLE PREFERENCE SECURITY
MTS	METCASH LIMITED
NABHA	NATIONAL AUSTRALIA BANK LIMITED NATIONAL INC.SEC. STAPLED FLOATING RATE DEBT/PREF
NCM	NEWCREST MINING LIMITED
ORI	ORICA LIMITED
OZL	OZ MINERALS LIMITED
PWSPA	POWERS TRUST - 2.65% + BBSW RESETTABLE PREF
RIO	RIO TINTO LIMITED
SHL	SONIC HEALTHCARE LIMITED
STW	SPDR S&P/ASX 200 FUND
SUN	SUNCORP-METWAY LIMITED
SUNPB	SUNCORP-METWAY LIMITED. NON-CUMULATIVE CONV. PREFERENCE SHARES
WBCPA	WESTPAC BANKING CORPORATION STAPLED PREFERRED SECURITY
WCTPA	WESTPAC TPS TRUST NON-CUM.FLOATING RATE RED.CONVERTIBLE PREFERREDSEC
WES	WESFARMERS LIMITED
WOW	WOOLWORTHS LIMITED
WOWHB	WOOLWORTHS LIMITED UNSECURED FLOAT. RATE SUB.PERP. NOTES
WPL	WOODSIDE PETROLEUM LIMITED

#### Other Terms:

GICS	GLOBAL INDUSTRY CLASSIFICATION STANDARD
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## An Actuarial Journey into Financial Planning

### 9.3 Appendix 3 - Actuarial Financial Model Example Output

Scenario Gearing										
Year	Super Account Balances \$'000	Outstanding Debt		Value of Investments End of Year \$'000	Value of Home \$'000	Net Worth End of Year \$'000	Spend \$'000	Net worth Consumption		Scenario Gearing
		Investment Purposes \$'000	Home Loan \$'000					All Assets %	Exclude Home %	
1	84.1	48.0	186.3	53.0	550.0	452.7	71.2	15.72%	79.92%	Husband and wife aged 32. Plan to start family in 2 years after home renovation finished.
2	98.1	96.0	165.3	102.7	563.8	503.2	61.0	12.11%	58.19%	\$84.1K in super
3	111.0	144.0	134.2	153.9	577.8	564.5	34.1	6.05%	28.23%	Salary Husband \$125K, Wife \$50K
4	124.9	192.0	113.6	206.6	592.3	618.2	47.7	7.72%	34.20%	Retire at age 60
5	139.9	240.0	81.6	260.9	607.1	686.3	39.6	5.77%	24.63%	Assumptions
6	155.8	240.0	82.5	268.9	622.3	724.4	75.6	10.43%	40.91%	1. cost of debt 7%
7	172.9	240.0	48.3	277.1	637.8	799.5	43.8	5.48%	20.85%	2. Invest 100% Aussie Equities:
8	191.3	240.0	25.4	285.5	653.8	865.2	59.3	6.85%	25.03%	3.5% div yield
9	210.8	240.0	-	307.0	670.1	947.9	48.4	5.10%	17.41%	50% franked
10	231.8	240.0	-	317.6	686.9	996.2	89.0	8.93%	28.76%	5% capital growth
11	254.1	240.0	-	369.7	704.0	1,087.9	51.3	4.72%	13.37%	
12	278.0	240.0	-	412.4	721.6	1,172.1	66.7	5.69%	14.81%	
20	536.3	240.0	-	687.2	879.3	1,862.8	119.6	6.42%	12.16%	Borrow \$48K pa for 5 years resulting in
25	777.7	240.0	-	964.1	994.8	2,496.5	75.6	3.03%	5.03%	\$240K of investment debt
Retire Today's	962.3	240.0	-	1,317.0	1,071.3	3,110.7	80.4	2.58%	3.94%	Inflation 3%
\$	420.6	104.9	-	575.6	468.2	1,359.6	35.1	2.58%	3.94%	Retire Values in today's \$

Due to the volatility of investment markets and the randomness of life generally, projections cannot be guaranteed. The one thing that is certain is the final numbers will be materially different to those projected above.