

Guide: Retirement Planning

Retirement planning means different things to different people. For the purpose of this guide we are talking about the time when we leave the 'office' or employment especially due to age. It is the time when we are no longer able, or choose not to earn an income from our physical endeavours.

It is a time when we hope to have sufficient assets which can support us, at an adequate standard of living, for the remainder of our lives. And that does require planning.

What is retirement?

Why should we bother?

In the past, the Government used to look after us from the cradle to the grave. Won't they look after us in the future? We believe that the Government will provide social assistance — but only at a subsistence level. If you are happy with that, then read no further. If you want more than that, then you have to do it yourself.

Population time bomb

The Population Time Bomb (figure 1) shows one reason why it will be increasingly difficult for Governments of the future to fund us in our old age.

Figure 1 The Population Time Bomb Dependency Ratio The number of people aged 65+ per 100 people aged 15–64	
1951	15 per 100
2004	18 per 100
2051	45 per 100

This means that for every person aged 65+, there is projected to be 2.2 people in the working-age group in 2051, compared with 5.5 people in 2004.

Figure 2 The Population Time Bomb Dependency Ratio Number of people aged 0–14 per 100 people 15–64	
1961	57 per 100
2004	33 per 100
2018	28 per 100

New Zealand's total dependency ratio (the number of people aged 0–14 and 65+ per 100 people aged 15–64) is projected to rise from 51 per 100 in 2004 to 73 per 100 in 2051. This is similar to the total dependency ratios experienced in the 1950s and 1960s, which peaked at 71 per 100 in 1960.

The 65+ population will itself age. Within the 65+ age group, the number of people aged 85+ has trebled since 1978 to roughly 55,000 in 2005. While projections of the very old are sensitive to mortality assumptions, projections for 2051 put the number of people aged 85+ in 2051 at 320,000.

The great risks of life

There are three:

1. We die too young
2. We lose our ability to earn

3. We live too long

In managing our risks, we cope with 1 and 2 by buying Life insurance and Sickness and Disability Insurance. To cope with 3 we have to PLAN for our retirement (which includes our old age).

'If we fail to plan... We plan to fail'

The planning process

Simply put, the more wealth you can accumulate for your retirement, the more self-reliant you will be.

Your wealth includes all of your assets. For example:

- House
- Shares
- Real estate
- Car
- Chattels
- Cash and deposits
- Holiday home
- Business assets
- Boat

Wealth accumulation is not just about superannuation schemes. All assets have the ability to be converted to cash if required at a future time.

In the first instance it is more important to focus on the total wealth required for retirement. Once that is done you then decide on the accumulation method. Furthermore all methods of accumulation are valid. For example:

- Repay house mortgage
- Term deposits
- Buy holiday house
- Managed funds etc.

Define life goals

Use the worksheet provided with this guide to help you set and record what you want to achieve.

The first step is to identify the most significant areas in your life. For some people these will be work and family, for others, education and travel — it will depend on your personal circumstances.

Then you need to describe what you want to achieve in each of these areas in the short, medium and long term. This may or may not mean changes to your present course, it depends on you.

Areas to consider

The areas you may want to consider include:

- Occupation
- Lifestyle
- Family
- Education
- Experiences you want to have
- Income/wealth
- Health

'Short' and 'long' term

A word about 'short' and 'long' term: time horizons can differ greatly depending on how old you are. When you are 30, the long term could mean 25 years away: at 70, only five to ten years. The goals you set are for you, so short and long term are as you see them.

For each time period then you need to identify your one or two most important goals.

Because many of us are in similar situations our objectives are often alike. Some of the most common include:

Long term	<ul style="list-style-type: none"> ▪ Retirement — ensuring adequate income to sustain your desired lifestyle including housing, leisure activities, travel and family commitments ▪ Providing for children or grandchildren by helping with the cost of their education or by bequest ▪ Overseas travel at retirement or earlier
Medium term	<ul style="list-style-type: none"> ▪ Starting or expanding a business ▪ Buying a home or paying off your mortgage ▪ Buying a holiday home ▪ Major purchases such as a new car or boat ▪ Home improvements
Short term	<ul style="list-style-type: none"> ▪ Taking up golf or another recreation ▪ Improving your education or training

The next step

The next step is to outline an action plan for each of these goals. There are some secrets to ensuring goals are achieved and don't remain mere wishes:

- Express each goal as a project
- Enlist the support and assistance of others, especially your spouse or partner — team work usually achieves more than a solo effort
- Visualise what obstacles may arise and how you will overcome them and, most important, what it will feel like to reach your goal

Life Goals Worksheet

**Life Goals
Worksheet**

For use with your Retirement Planning Guide

My Life Goals

What do I want to achieve in:

	Short Term	Medium Term	Long Term

Occupation			
Lifestyle			
Family			
Experiences you want			
Education			
Income/Wealth			
Health			
Other			

The most important of these are:	Estimated cost:
Short Term	
1.	\$
2.	\$
Medium Term	
1.	\$
2.	\$
Long Term	
1.	\$
2.	\$

The Retirement Equation

It would be normal to advise an individual with a mortgage to work hard to repay the mortgage as quickly as possible, and then divert that amount of savings towards the retirement goal. But what amount should be aimed for? The factors which go into the equation are set out below along with an example of calculation of 'income earning assets' required at preferred retirement age.

Factors	Example	Notes
1. Preferred retirement age	60	Most people will choose between 55 and 65. If considering this as a couple, the calculation is more appropriate for the principal earner.
2. Years to go to retirement	25	Work out how many years from now till when you want to retire.
3. Size of existing investments	\$50,000	The size of investment should be arrived at by adding up the value of all assets including the farm or business, superannuation and investment type life insurance policies and including lifestyle assets such as dwelling, vehicle, furniture and effects and other similar assets not held for investment purposes. The amount of any liabilities should be deducted.
4. Size of wealth required at death	No requirement	For many people this is not an issue and it can be assumed that some reduction in the real value of the capital sum during retirement will be acceptable. For some though, the objective may be to maintain the level of capital intact.
5. Income goal at retirement	\$25,000 p.a. of tax paid income (in current purchasing power)	This is usually related to levels of pre-retirement income and the norm is retired people spend at 70% of the level of the pre-retirement expenditure. For most people planning today, we recommend they ignore the likelihood of a state pension being available. If available, treat as a bonus!
6. Level of tolerance for investment volatility	Average	As a general rule, as investors get older their propensity to take investment risks and volatility reduces. Other factors need to be considered including the size of the investor's wealth and the past

investing behaviour of the investor.

7. Life expectancy	Assume typical for male age 60	This is higher for women than men and increases as you get older. It is prudent to assume that you will live to 60, and plan on your life expectancy at that age, which is around 76 for men and 81 for women. A safety margin should also be built in, as should any knowledge about health.
--------------------	--------------------------------	---

Assets required at preferred retirement age

Two tables which will assist in assessing the lump sum needed for retirement follow. The first sets out some multiples for three common retirement ages. The second table looks at savings rates needed to accumulate a lump sum.

Table 1

Calculating The Lump Sum Needed at Retirement

Preferred Retirement Age	Multiple of Income Sought	
	Male	Female
55	15	17
60	13	15
65	11	13

Table 2

Monthly Savings Required Per \$100,000 at Retirement Date

Years To Go Until Preferred Retirement Age	Real Net Return pa				
	2%	3%	4%	5%	6%
5	\$1,600	\$1,570	\$1,538	\$1,508	\$1,478
10	\$760	\$727	\$694	\$663	\$632
15	\$482	\$448	\$416	\$386	\$358
20	\$343	\$310	\$280	\$252	\$227
25	\$260	\$229	\$200	\$175	\$152
30	\$205	\$175	\$149	\$125	\$105

What does this mean for you?

The first step is to select the multiple of tax paid income required as a lump sum at retirement date. For an average male at age 60, the multiple from Table 1 is 13.

The example seeks \$25,000 in tax paid income in today's dollars, each year from age 60. Using the multiple above this suggests a required capital sum in today's cash dollars of \$325,000.

If, for example, you have currently \$50,000 invested with a compound return of 4% p.a., that sum will grow to about \$130,000 over 25 years. This leaves a balance of \$195,000 to be accumulated from savings. Working on a 4% return, we see from Table 2 that you would have to save \$200 per month to accumulate \$100,000. Therefore to accumulate \$195,000, \$390 must be saved each month.

Two points bear further consideration. First the 4% real return. This is a critical assumption in the exercise and is based on historic rates of return from various assets classes over long periods, both in New Zealand and overseas. To be achieved consistently, a significant slice needs to go into share market investments, and probably commercial property as well.

Second, the impact on inflation. Provided that there is a good slice of the investment in capital growth assets, rather than money assets, the real return should be preserved in spite of changing inflation rates. For example, with 2% inflation, a 6% after tax return on average should be sustainable. If so, the actual dollars results will be shown in the second table of projections.

Again, capital is exhausted at age 78, although the dollar figures are very different. This of course assumes that the savings ability keeps pace with inflation, which is what you would expect.

When deciding on the capital sum needed for financial independence, the target seems rather large and intimidating. The most reassuring response is that the sooner a start is made the better, and like most important projects, take one step at a time.

Now let's do a calculation for ourselves

Step 1:

Recognise Where You Are At

Assets	Market Value	
House	_____	
Car/s	_____	
Boat	_____	
Life Insurance	_____	
Business Assets	_____	
Investments	_____	
- Shares	_____	
- Real Estate	_____	
- Deposits	_____	
Other	_____	
Total Assets		\$ _____

Less Liabilities		
House Mortgage	_____	
Business Debt	_____	
Credit Cards	_____	
Other	_____	
Total Debts		\$ _____

<u>Current net wealth</u>		\$ _____

Step 2:

Calculate Wealth Required for Retirement

Retirement Income Goal	\$ _____
	(A)
Cash required per year (ref Income goal in retirement)	
Target Retirement Age	_____ years old
Multiplier from Table 1	\$ _____
	(B)
(a) Lump Sum Required To Provide Income Goal	\$ _____
	(A × B)
plus	

(b) Cost of Life Goals

(Working from Life Goals Worksheet)

- Short term \$ _____
- Medium term \$ _____
- Long term \$ _____

plus

(c) Domestic Assets Required for retirement

- House \$ _____
- Car \$ _____
- Holiday House, Boat etc \$ _____

Estimated Total Wealth Required At Retirement Age \$ _____

Step 3:

Summary

Total Wealth Required \$ _____

Less Current Net Wealth \$ _____

Capital Sum Required to Save by Preferred Retirement Date \$ _____

Number of Years until Preferred Retirement Age (Refer Table 1) _____ Years

Estimated Real Net Return (Refer Table 2) _____ %

Monthly Savings Rate Required (Refer Table 2 per \$100,000) \$ _____

Retirement savings target \$ _____ **per month**

$$\left(\frac{A}{100,000} \times \frac{B}{1} \right)$$

It is probable that you have calculated a monthly savings target that is beyond your current ability. Don't be despondent. So far you have been calculating ideals. Reality is seldom ideal.

Now simply modify the figures so they are consistent with your savings abilities. You will still be pleasantly surprised at the savings levels achievable. It is getting started that is important. Also your circumstances will change from year to year. Children go to university, they get married and so on.

Investments

Priorities

All facets of your wealth are investments. The following order of priority is recommended:

1. Buy your home and pay off the mortgage. You need a house for the rest of your life and it should be secure from all risk as soon as possible.
2. Make sure your business is properly financed. If funds permit — pay off debt.
3. Only when the first two are beyond risk should you spread your investments. The first secures your shelter and warmth. The second secures your income and ability to save. Both must receive maximum protection.

Types of investment

An investment can be defined as a commitment of funds to one or a number of assets held over a variable future time period. Investment is concerned with the management of an investors wealth, which is the sum of current income and the present value of all future income therefore present value and compound interest concepts have an important role in the investing process.

For the purpose of this section of this guide, the term investment refers generally to financial assets and in particular to marketable securities. Financial assets are paper or electronic claims on a particular issuer

whereas real assets for example, are tangible assets such as gold, silver, diamonds, art and real estate. We regard real estate as an investment, however prefer to access it in a securitised form for liquidity reasons. Marketable securities are financial assets that are easily and cheaply traded in organised markets.

The basic nature of investment decisions — risk and return

People invest because they wish to earn a return on their money. Holding one's money in cash carries with it a risk of having the value of it eroded over time by inflation.

An important concept of return is the difference between the expected return (ie the anticipated return for some future period) and realised return (the actual return over some past period). The difference between the expected and realised returns is known as risk.

On average, investment market participants are risk averse. A risk averse investor will not incur any given level of risk unless there is an expectation of adequate compensation for having done so. In other words, there is no such thing as a free lunch! An investor who takes on more risk will want to be compensated in terms of a higher rate of return or alternatively an investor can only earn a higher rate of return by taking on more risk.

Investment alternatives

For the purpose of this guide, the investment universe comprises:

- | | |
|-------------------|-----------------|
| a) Cash | – New Zealand |
| | – International |
| b) Fixed Interest | – New Zealand |
| | – International |
| c) Property | – New Zealand |
| | – International |
| d) Shares | – New Zealand |
| | – International |

Income & growth assets

Cash and fixed interest investments are known as income assets because they have only one return component, a fixed or floating interest return, or yield.

Property and shares are known as growth assets reflecting the two components or return they produce:

- Fluctuation in value
- Income yield

Growth assets exhibit higher average rates of return over time, however are also subject to greater variability (risk) in that return in the interim.

Cash

Cash investments generally comprise short term money market securities sold by governments, financial institutions and corporations. Maturity of these instruments range from 1 day to 1 year, but are typically issued for 90 days or less. Most of these instruments are negotiable and are actively traded and pay a fixed or floating rate of return over their short life span. The investor receives the return and original principal back upon maturity. Examples of an international cash investment to a New Zealand investor would be a US Treasury Bill. The most common example of a New Zealand cash investment would be New Zealand 90 Day Bank Bills.

Fixed interest

Fixed interest securities are issued on the capital market which generally encompasses instruments with maturities of greater than one year. The risk is generally much higher than money market securities because

of the time to maturity and other factors.

As their name suggests, these securities have a specified payment schedule which details a fixed rate of interest payable on the face value of the security at specified times. The interest payment, which is often bi-annual or quarterly, is generally referred to as a coupon payment.

The coupon interest rate is not the yield. The yield is the interest rate which the market determines is appropriate for that particular debt security of that particular issuer. Therefore if the yield for a particular fixed interest security is below the coupon rate and there is a reasonable time period left to the maturity of the fixed interest security, the capital value of the fixed interest security will be greater than its face value and vice versa. The same applies where an investor purchases a fixed interest security as a certain yield and the market's perception of value for that security subsequently rises or falls.

The reason investors are willing to pay more for a fixed interest security as yields drop illustrates the fact that at its previous purchase price (at a higher yield), the rate of return as determined by yield until its maturity is more than can be gained from the market at that time. The same applies as market yields rise, investors will pay less for the fixed interest security.

This brings us to another concept — duration. Although maturity is the traditional measure of a bond's life time, it is inadequate, because it focuses only on the return of principal at maturity date. Two 20 year bonds, one with an 8% coupon and the other with a 15% coupon, do not have identical 'economic' life times. The investor will recover the original purchase price much sooner with the 15% coupon bonds. Therefore a measure is needed that accounts for the entire pattern (both of size and timing) of the cash flows over the life of bond — the effective maturity of the bond. This concept is called duration. The higher a bond's coupon, the shorter its duration and vice versa. A zero coupon bond's maturity equals its duration as a zero coupon has no attached interest payments, however the purchase price at a particular day is a function of the final repayment of principal discounted by the market yield applicable on that day.

The yield applied to a particular security can be broken down to varying degrees. The rationale for this will become clearer later in this text when we look at portfolio construction and optimisation. Basically however the yield on a particular fixed interest security is a function of the risk free rate of return in that economic environment plus the risk premium for that type of asset plus or minus a premium or discount for that particular security depending on its individual attributes. This is the basis of the Capital Asset Pricing Model (CAPAM) commonly used by accountants when doing valuations of business entities.

Property

Despite being a tangible rather than financial asset, we regard property to be a viable individual asset class which should be considered equally in the composition of a New Zealand investment portfolio. The reason for this is that the value of property is derived from capitalisation of an ongoing earning stream similar to financial assets. In addition, property cannot be ignored in that it makes up an overwhelming proportion of the total global asset value.

Property returns are derived from rentals and changes in the yield applied to property assets.

Property rentals are priced subject to normal supply and demand factors and generally will reflect long term inflation in most countries. Therefore property investments provide an inflation hedge in varying degrees depending upon whether rental levels are on the top or bottom side of average inflation levels.

The yields investors are prepared to pay for property are also influenced by demand and supply which dominate investment and economic cycles. Yields tend to be at their highest toward the bottom of the cycle at the end of the recessionary phase and at their lowest at the very top of a boom. Just as with fixed interest securities falling yields increase the capital value of property and vice versa.

Because of the variable nature of property returns and that they are in fact a residual after the repayment of capital and required rate of return on any underlying debt, property returns carry with them a risk than either fixed interest or cash. Therefore an investor will require a risk premium in compensation and a higher overall rate of return that cash and fixed interest don't have. The same concept applies to shares but to a greater degree as we will discuss later.

Whilst property is a function of almost everything we see around us daily, our view is that investment grade property generally only comprises central business district office buildings, retail shopping property, or industrial property. There are a number of other forms of real estate, for example residential property, the values of which we believe are influenced too much by factors outside that which should primarily drive

investment decisions.

Equity securities

Equity or shares represent a proportional ownership interest in a company.

Ordinary shares rank under all other claims on the assets and profitability of a company. There are a number of securities which have some of the attributes of both fixed interest and equity securities such as preference shares and convertible notes which generally rank above shares.

As a result of the nature of the return of shares which is in the form of dividends and gain or loss in the value of the share itself, shares usually provide the high risk/high return component of most balanced portfolios. The capital gain or loss component and return from shares is the function of the profitability of the company and the yield applied to that profitability. The yield varies according to the company's prospects which are a function of a wide range of factors both internal and external to the company.

Real returns

Real Returns from Various Assets over the Past 50 Years

Equity securities	5–7%
Prime commercial property	3–5%
Fixed interest	1–3%
Residential property	0–3%
Cash	0–2%

Source: IPAC Securities

Investing Made Easy

Have you ever wondered how you could accumulate enough money to buy a new car, take a trip overseas, save for a deposit on a home or investment property, or most importantly, have enough money to retire on?

The easiest way to reach your financial goals is to start investing through a regular savings plan. All you need is say \$2,000 to start and then \$100 per month, and you will be well on your way to developing something quite substantial.

The table below provides a guide to the amount of money you need to invest regularly to reach a certain financial target. For example, to reach savings goal of \$10,000 in five years with an initial investment of \$2,000, you will need to save \$98 per month.

When's the best time to start?

There is no 'best time'. You don't have to worry about where share prices or interest rates are headed. You simply invest a set amount of money on a regular basis over a long period of time.

This process, known as 'dollar cost averaging', is a disciplined approach that can help turn the odds in your favour. The idea is that you buy less when the market is up, and more when it is down — automatically.

How much do I need to invest each month?

Time Horizon	Financial			
	\$5,000	\$10,000	\$25,000	\$50,000
1 Year	248	686	1,998	4,184
2 Years	107	308	912	1,917
3 Years	63	190	571	1,206
4 Years	41	132	405	859
5 Years	29	98	307	654

6 Years	20	76	242	519
7 Years	14	60	196	424
8 Years	10	48	162	353
9 Years	6	39	136	298
10 Years	4	32	115	255

(The above table is illustrative only)

Example

Consider the following example. Say you put \$100 per month into a managed investment that initially had a unit price of \$10. Over the next few months, the market falls (causing the unit price to drop) before recovering to its original value.

Month	Investment	Unit Price	Units Purchased
1	\$100	\$10	10.0
2	\$100	\$8	12.5
3	\$100	\$5	20.0
4	\$100	\$8	12.5
5	\$100	\$10	10.0
Total	\$500		65

At the end of five months you have 65 units each worth \$10, so you have \$650. You have invested \$500, so your profit is \$150 even though the unit price is the same as when you first invested.

Of course, dollar cost averaging does not guarantee a profit. But with a sensible and long-term investment approach, dollar cost averaging can smooth out the market's ups and downs and reduce the risk of investing in volatile markets.

Other Things to Consider

Wills

Have you recently reviewed your will? Does it still express your wishes?

Enduring power of attorney

While we are still healthy we tend to give too little thought to how our affairs will be handled if we become frail or unable to manage for ourselves.

An enduring power of attorney will enable you to appoint someone to manage your property if you should subsequently become of unsound mind or unable to communicate with others.

Like a will, an enduring power of attorney requires the assistance of a solicitor to ensure all your personal circumstances are provided for properly.

Medical insurance

Do you want to depend on the state for your health care?

Life insurance

Do you have enough? You may wish to provide for:

- A replacement income if either or both of the household's incomes are lost
- Repayment of debt
- The cost of funeral and related expenses

- A legacy for your family

Income protection

Will you and your dependants be at risk if you get sick and cannot earn an income?

Disclaimer

Stephen Larsen and Co has provided this report on the understanding that:

1. The report is a guide only and should not form the sole basis for any decision without first obtaining proper professional advice.
2. We will not be responsible for and expressly disclaim liability, whether under contract or negligence:
 - (a) For the results of any use made by users of the report
 - (b) For any errors or omissions in this report
 - (c) For any direct or consequential loss or damage to arising from the use of this report, whether to a direct purchaser of this report or to any other person who may borrow or use them
 - (d) If any part of the report, whether used in its original form or altered in some way by the user, proves invalid or does not attain the result desired by the user
 - (e) For any negligence in the publication or preparation of these reports
3. This disclaimer extends to the user and to any client of the user who suffers loss as a result of the use of these reports.
4. The user acknowledges that it has not told us any particular purpose for which these reports are required and that it has not relied on our skill or judgement to provide a paper suitable for any such purpose.

Intellectual Property Notice

Stephen Larsen and Co:

1. Holds the exclusive authority to use all copyright, trademarks and other intellectual property rights comprised in this paper.
2. Does not allow these rights nor any part of this paper to be used, sold, transferred, licensed, copied or reproduced in whole or in part in any manner or form whatsoever without its prior written consent.

Last reviewed on 13 July 2020