UCT RETIREMENT FUND

INVESTMENT GUIDE

Introduction

Dear Member

We have prepared this guide to help you with the investment of your retirement savings in the **University of Cape Town Retirement Fund**.

It is long; and it is complex. But investment is a complex subject.

It is important. Because you are a member of a defined contribution fund, the investment return on your retirement savings has a direct impact on what money you will have when you retire.

As Trustees we accept that a key area for the Fund is in the education of members (you) about their (your) investments. I urge you to read this guide, and if you have questions to come to a UCTRF road show on this topic. (See website in February for details.)

Yours sincerely

Associate Professor Phillip De Jager
Chairperson: Board of Trustees

Contents

Important Disclaimers

Investment is a complex area and we have made every attempt to simplify this guide for ease of understanding. This may result in some areas being covered in relatively little detail. You should note that:

- Past investment performance is not necessarily a guide to future investment performance. The statistics shown in the guide are based on past performance;
- The information contained in this guide does not constitute advice; and
- You may need to seek expert financial advice before making an investment decision.

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Thinking about your retirement

Do you know that:

- your retirement Fund benefit is probably the largest asset you will ever own?
- very few people think about money for their retirement until too close to retirement?
- sound management of your retirement Fund assets is crucial because as a member of a defined contribution Fund you carry the risks and opportunities of investment?

Here are the two KEY questions to help you think about your retirement – even if it is a long way off!!

1 Retirement Salary

What percentage of your salary do you think you would need to live on after you retire?

○ 25%	○ 50%	○ 75%	○ 100%

2 Retirement Age

At what age do you think you will retire?

○ 55	○ 58	○ 60	○ 63	○ 65

Your income in retirement

To answer the first question, think about your expenses once you retire. It is very likely that you will need less money after you retire because:-

- Your house may be paid for in full by the time you retire.
- Your children may no longer be financially dependent on you.
- You may have to pay less tax – once you are over age 65 the amount of tax you pay reduces.
- Your travelling costs may reduce, as you will not need to go to work each day.

On the other hand some expenses may go up. In particular, your medical expenses usually increase when you get older.

70%-80%

As a rough guideline you should be able to have a reasonable retirement if your retirement income is some 70% to 80% of your total salary just before retirement.

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The impact of your retirement age

As increasing longevity is a feature of life, you will probably need to build up more retirement savings, simply because you (and your partner) are going to have to live off these savings for longer.

Let us say you want to retire with an income equal to 70% to 80% of your total salary just before retirement. The following chart is based on past patterns of longevity and gives you some idea of the number of years' salary you need to have saved to provide this level of income, at various retirement ages. Given the probability that many UCTRF members will live much longer these multiples may not be adequate.

The savings you make into the UCTRF are a percentage (currently around 20% for most members) of your deemed pensionable amount (DPA). This is in turn a percentage (between 50% - 100%) of your Cost of Employment (CoE). This means that normal savings are between 10% and 20% of CoE.

This chart shows how difficult it is to retire early and have a reasonable income in retirement.

Important Note

The capital amounts shown are the estimated amounts required to purchase a pension annuity with a reasonable degree of inflation protection (but not a fully inflation-linked pension) and some provision for your spouse after your death. The actual costs of pension annuities depend on many factors – the Fund's website has information on the options available to you at retirement.

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Living annuitants: and your choice of investment channel

Much of what you will read about your choice(s) of investment channel, has been written with the current member in mind. If you are retired, and a living annuitant, you will need to consider two key factors in making investment channel decisions. These are:

1. your need for income; and
2. your appetite for risk.

Both these issues are person dependent, and if your entire retirement capital is in this Living Annuity you should have a particular concern for risk. You should take advice, having regard to these factors, before making an investment channel decision. You should accept that if you seek professional advice you will have to pay for this advice: but it should be worth it.

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Investment Terms

Readers who are familiar with basic investment terms and the main asset classes can skip this section.

- The **investment return** over a measurement period is the market value of the asset at the end of the period less the market value of the same asset at the beginning of the period. Income, such as dividends or interest, from the asset during the period is added to this return. The growth in the market value of the asset plus the income is divided by the market value of the asset at the beginning of the period to calculate the percentage return. More correctly this is known as the **nominal investment return**.

- The **market value** is the price at which there is a willing seller and a willing buyer.

- The **measurement period** is the period (say, one year or 3 years) over which one measures the investment return.

- The **inflation rate** over a measurement period is how much more it will cost you to buy a "basket" of goods at the end of the period compared to what it cost at the beginning of the measurement period.

- The **real investment return** is the nominal investment return less the inflation rate over the same measurement period. It is an important measure since it calculates how much better your investments have done than inflation.

- The **volatility** is a measure of how much the investment return can vary (fluctuate) over the measurement period. It is a measurement of the risk you take. Please note that the market value of most investments can go up or down.

- **Asset allocation** refers to the percentage of the Fund's assets invested in equities (shares), property, bonds and cash.

Your Focus should be on your real investment return – i.e. the return you earn after deducting inflation.

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The main asset classes

The UCT Retirement Fund invests in four main asset classes namely equities, property, bonds, and cash.

Equities (or Shares)

When a retirement fund owns the equity (or shares) of a company, it effectively owns part of that company. Equity prices are sometimes affected by market sentiment. Sometimes investors are negative towards the market (or towards a sector of the market or a particular company listed on the market) and even if the company in which the fund has invested is doing well, the shares may still fall in value.

The reasons for rises and falls in equity prices are sometimes predictable. However, often the market may rise or fall because of factors that are not predictable. For this reason it is very difficult to time entry into and exit from the market to take advantage of these movements. Trying to time the market to increase your investment returns is a bit like taking your life savings to a casino.

Equities can be bought and sold on "stock exchanges" throughout the world. The South African stock exchange is called the JSE Ltd (Johannesburg Stock Exchange). The two main features of equities (compared to property, bonds and cash) are:

- Historically, over the long term, equities have been the asset class that provided the highest investment return; and
- Equities have had the highest volatility (or risk).

This makes sense – higher returns are usually associated with taking on more risk.

Direct Property

A "direct" property investment is one in which a retirement fund owns the property (or part thereof). The investment return comes from the rental the fund receives, and the increase in the value of the property.

Historically, over the long term property has given the second highest investment return (after equities), but it is less volatile than equities.

This kind of property investment is typically not a major asset class for retirement funds for two main reasons:

- Direct property investments tend to be fairly large investments in a single property and this puts quite a few "eggs in one basket"; and
- Property is usually difficult to sell. For this reason, many retirement funds will only invest in "listed" property investments, e.g. the shares of companies which specialise in owning and managing properties.

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Bonds

The Government (and some large companies like Transnet, Telkom, ESKOM and SASOL, and the banks) is a regular borrower of money. So, it issues bonds that invite investors (like a retirement fund) to lend it money. The bond will set out the amount of interest the borrower will pay, and the date on which the loan will be repaid. These bonds are traded on the market.

The market value (price) of a bond at any point in time depends on interest rates and, importantly, that price can decrease. By way of example, let's say the retirement fund owns a bond that is worth R1 million, which is earning R80 000 per annum or 8%. If interest rates now increase to 10% per annum, the market value of the bond will fall because no investor will be prepared to pay R1 million to earn an 8% return when they now can earn 10%!

This is called the "inverse" relationship between the price of bonds and interest rates. If interest rates rise, bond prices fall; if interest rates fall, bond prices rise.

The extent to which the price of a bond falls (rises) if interest rates rise (fall) depends on the period before the loan is repaid. If the repayment of the loan is a long way off, the investor will look for a much lower price because he/she needs to be compensated for the difference between 12% and 10% for a longer period.

Government bonds and other large corporate bonds can be bought and sold easily on the JSE's Debt Market and other world markets. Bonds are normally less volatile than equities and property as interest rates tend to move in fairly stable patterns. However, sometimes interest rates may fluctuate severely and bond prices would then follow suit.

Cash and near cash investments

Such an investment is like your bank savings account or a 30-day fixed deposit. Government and corporate bonds that have a term of less than 12 months before the loan is repaid are regarded as "near cash" investments.

Because such investments have a very short term (i.e. less than 12 months) they are much less affected by changes in interest rates than bonds and are the least volatile of the four asset classes described above. Cash and "near cash" is expected to provide the lowest return of all the asset classes over the long-term. Such investments are also called "money-market instruments".

International investments

Investments in equities, property, bonds and cash can be done either in South Africa or internationally. The main additional factors introduced by international investment are:

- The retirement Fund can be exposed to the companies that have the best growth prospects in the world. For example, there are very few South African companies in the rapidly growing pharmaceutical and health care sector – internationally the Fund can get exposure to the best companies in this sector.

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- The Fund is exposed to currency changes. Say, $1 currently costs R13 and the Fund invests R13 million in the USA (i.e. $1 million). If the Rand weakens so that $1 now costs R15, the Fund will profit since its $1 million investment is now worth R15 million. Of course, if the Rand strengthens instead of getting weaker, the Fund will make a currency loss instead of a profit.

- From time to time there are episodes of investor panic and heightened “risk aversion”. Increasingly, these episodes occur globally, rather than just being confined to one country. When this happens, there is often a tendency for international investors to sell assets in markets such as South Africa that are perceived (whether fairly or not) as “risky”. Commonly in such episodes there is a so-called “flight to quality”, in which investors retreat to the perceived safety of bonds issued by the governments of the major industrial nations such as the USA, Japan, and Western Europe. Having some investments in these major markets, especially in their government bonds, may give the Fund a degree of short-term protection in such episodes of investor panic.

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Understanding and managing your risks

As explained earlier, in a defined contribution fund, such as the UCT Retirement Fund, your retirement benefits will depend on two factors, namely:

- How much money you, together with UCT, save (contribute) monthly for your retirement; and
- Most importantly, the investment returns you earn on these contributions.

You carry the risk that the investment returns earned on your retirement saving contributions will be sufficient to provide you with a reasonable income at retirement.

So, it is crucial that you understand what risks you are taking on and how best you can manage these risks. In this regard you are exposed to three main risks, namely:

- The risk of making contributions to the Fund that are too low in relation to your total remuneration; and
- Inflation risk; and
- Final payment risk.

Risk of insufficient contributions

This refers to the risk that the Fund contributions that you set aside monthly as your retirement savings are simply too low in relation to your total remuneration (CoE). These contributions are currently 20.20% for permanent staff and 19.64% for fixed term contract staff of your deemed pensionable amount. Your deemed pensionable amount is between 50% and 100% of your CoE – the choice of what percentage to allocate as your DPA is your own.

Clearly, if you set your deemed pensionable amount at the lowest level of 50% of your CoE, this will have a material impact on your retirement savings (vs. a higher allocation of perhaps 80% or 100%).

The Trustees cannot do anything to manage this risk other than to warn you of the consequences of saving too little, and to encourage you to increase your deemed pensionable amount to the maximum possible.

Inflation risk

This refers to the risk that the Fund contributions that you set aside monthly as your retirement savings (as specified in the previous section) do not earn sufficient investment returns to provide reasonable retirement benefits.

Typically, you need your investment returns to be some 5% per annum higher than inflation over the long term, after all fees and costs, to provide for reasonable retirement benefits.

As a general rule, the further you are from retirement, the more you are exposed to inflation risk.

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Final payment risk

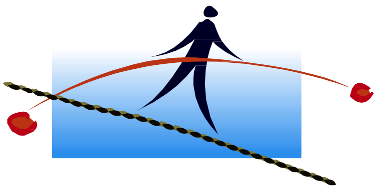
This refers to the risk that at the time when you leave the UCT Retirement Fund and want to use your retirement savings, investment markets are weak, and so the value of your retirement savings is at a low point.

It is crucial that you understand that "final payment risk" mainly applies when you **leave the Fund and want to use your retirement savings**. For example, if you resign and decide to invest your Fund resignation benefit for your retirement, you should be less concerned about your "final payment risk".

As a general rule, the closer you are to your retirement age, the more you are exposed to "final payment risk".

Managing these risks

There are three "tools" that can be used to manage the latter two risks, namely:



- The asset class in which your retirement savings money is invested;
- The time horizon for which your retirement savings is invested; and
- Diversification.

Choice of asset class

An asset class like equities has historically given returns significantly in excess of inflation and is therefore a good asset class to hold against inflation risk. But shares also have a greater tendency to go up and down in price (we say shares are more volatile) than many other asset classes. This makes equities a less suitable asset class for managing your "final payment risk".

On the other hand, cash is a very good asset class to manage your "final payment risk". Cash, however, does not give you an investment return much in excess of inflation and so it is not a suitable asset class for managing your inflation risk. So, you can do a lot to manage your inflation risk and "final payment risk" by managing the asset classes in which your retirement savings are invested.

Time Horizon

Whilst shares are the better asset class for managing your inflation risk, it is clear that they can go up and down quite sharply (i.e. they are volatile).

This volatility is most extreme when you invest in shares for a short period. The following chart shows the best and worst annualized return, after deducting inflation, (i.e. the real return) earned over any one, three, five, seven, ten and fifteen-year period on the JSE since January 1979.

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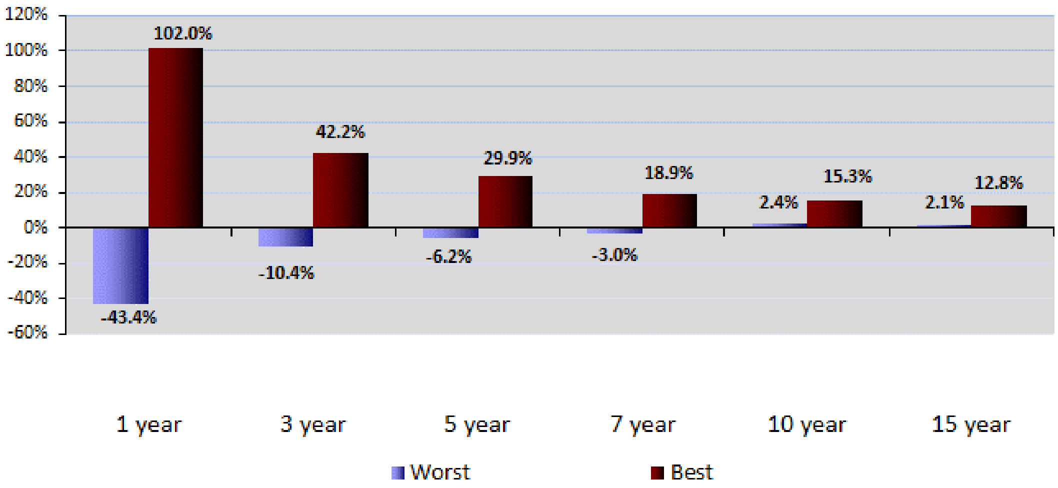

This chart suggests that the chance of a negative real return reduces if you are able to invest in shares over the long term.

So, if you will be working for some time still before you need your retirement fund money, you can afford to invest more of your retirement savings in shares. Even if the market does go down in the short term it should not worry you unduly because over the long term investment in shares best manages your inflation risk.

Of course, if you are going to need your money soon, you cannot afford to be over-exposed to the volatility of shares!

Diversification

The third "tool" that can be used to manage your risks is diversification. Another way of describing diversification is to "avoid putting all your eggs in one basket".

The past has shown that, more often than not, when some asset classes are down (e.g. South African shares), others go up (e.g. government bonds of "developed world" nations) - such asset classes are said to be **negatively correlated** with each other.

You can therefore reduce your risk by spreading your investments between the different asset classes. The assets invested in Portfolios B, C and D are diversified over a wide range of asset classes in order to meet this requirement. See the subsequent pie-charts.

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The investment channels available

The Trustees have designed four investment channels to deal with the different needs of members with respect to their “inflation” risk and “final payment risk”.

These investment channels are: -

- The Income Fund (also called Portfolio A), which deals mainly with your “final payment risk”;
- The Smoothed Bonus Fund (also called Portfolio B), which deals in part with your “final payment risk” and in part with your “inflation risk”;
- The Balanced Fund (also called Portfolio C), which deals mainly with “inflation risk”;
- The Shari’ah Fund (also called Portfolio D), which also deals mainly with “inflation risk”, but is somewhat more conservative than the Balanced Fund and is managed according to Shari’ah investment principles.

Each of these investment channels is described in detail below.

Income Fund (Portfolio A)

As the name implies, the Income Fund is invested 100% in money-market instruments. This portfolio was previously called the Cash Portfolio, but since the portfolio can contain bond instruments with terms to maturity of up to 3 years, it was felt that a more appropriate name was the Income Fund.

The prime objective of the Income Fund is to preserve the Rand value of your retirement savings at all times and to increase it with the interest earned on the underlying money-market instruments. It must be noted that this channel does not provide a capital guarantee since the portfolio includes bonds (maximum term 3 years) the capital value of which may decline in periods of rising interest rates. The Income Fund will generally hold these bonds to maturity.

It is expected that over the long term this channel will yield a net return of some 1% per annum above inflation. This channel is designed for those members wanting protection against “final payment risk”. It gives limited protection against inflation risk.

The asset manager chosen by the Trustees to manage this portfolio is **Prescient Investment Management**.

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Smoothed Bonus Fund (Portfolio B)

The two main features of this portfolio are:

- It smooths the investment return earned on the underlying assets over a period of between 5 and 10 years; and
- It provides a guarantee of contributions made.

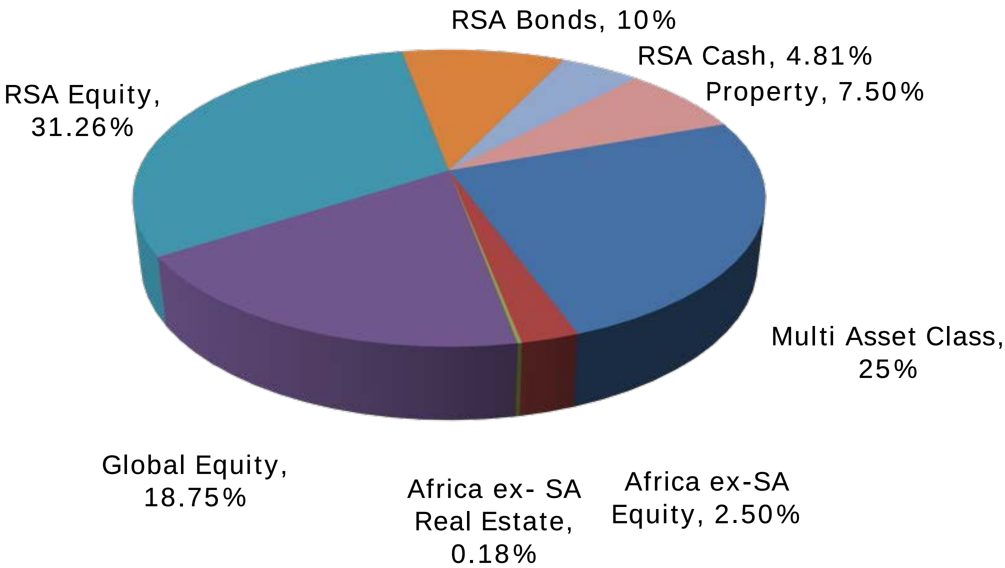
This portfolio has been designed in such a way that it targets (but does not guarantee) a net long-term investment return of some 3% per annum above inflation.

With this level of expected return, the channel does give you some protection against your inflation risk. By providing a level of guarantee, this portfolio also provides some protection against your "final payment risk". (Note that there are complex conditions applying to the guarantees provided on these investments, and so you should not assume that your full value invested in Portfolio B is completely guaranteed in all circumstances.)

An Insurer (currently MMI Group Limited (MMI), which was previously known as Momentum Life) provides the guarantee and smooths the investment return.

How the assets of a Smoothed Bonus Fund are invested

The strategic asset allocation for the Multi-Manager Smoothed Bonus Fund is as follows:



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How smoothing works

If you invest money in the Income Fund, Balanced Fund or Shari'ah Fund, you will be credited exactly with the investment return earned on the underlying assets (after deducting the investment manager's fee.). The money you invest in the Smoothed Bonus Fund will be credited with the bonus declared by MMI Life (after deducting the investment manager's fee). MMI declares a bonus each month.

In declaring this bonus the Insurer smooths the investment returns earned on the underlying assets over time (usually between 5 and 10 years). This means that part of the investment return arising from the very good years will be held back and then released in the years when performance is weaker.

For example, if the return on the underlying assets in the portfolio is 20% per annum, the insurer may only declare a bonus rate of 12% per annum. The remaining 8% return is earmarked in a "bonus smoothing account". In the following year, when investment returns are say 0% per annum or negative, the insurer may declare a bonus rate of 6% per annum or zero, thus drawing down on the "bonus smoothing account".

It is important to understand that over the long term, the bonuses declared by the Insurer will reflect the return earned on the underlying assets (after allowing for the cost of the guarantee (see below), shareholder charges and investment fees). It is this feature, together with the asset allocation, that gives you some protection against inflation risk.

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How much of my money is guaranteed?

Any contributions in the Smoothed Bonus Fund are guaranteed.

However, the insurer's bonus rate consists of two parts, namely:

- A **vested** bonus – this part of the bonus is guaranteed and is declared monthly in advance; and
- A **non-vested** bonus - this bonus may be reduced or removed by the insurer in the case of very poor market conditions and is declared on a monthly basis as well.

The monthly bonus is declared net of investment manager fees. The minimum monthly bonus net of fees is 0% (subject to no change in the tax dispensation that applies to retirement Funds) – currently you will only earn a negative return on this portfolio if MMI removes non-vested bonuses or, as discussed below, under certain circumstances if you switch out of the portfolio.

In order to reflect the part of your money invested that is guaranteed, the Insurer holds two accounts in your name, namely:

Your vested account

This account is a record of the part of your money that is guaranteed, and consists of:

- Any retirement saving contributions and any money you transfer to this Portfolio from the Income Fund, Balanced Fund or Shari'ah Fund, plus
- The vested bonus declared by the insurer on a monthly basis.

Because the balance in your Vested Account is guaranteed, it gives you some protection against your "final payment risk".

Your non-vested account

The balance in this account may be removed by the Insurer under adverse market conditions and consists of the non-vested part of the bonus that is declared monthly. Every 6 months, MMI transfers part (currently up to 5%) of the balance in your non-vested account to your vested account.

When you exit the Fund (i.e. receive a benefit) you will receive the full balance in your vesting and non-vesting accounts. Effectively this means that your non-vested account "vests" when you leave the Fund.

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Bonus declarations and "Bonus Series"

From time to time MMI may open a new "bonus series" of their Smoothed Bonus Fund. This will generally happen after a period of very poor investment returns, when the value of the assets underlying the existing Smoothed Bonus Fund is significantly below the total vested and non-vested accounts for members invested in the portfolio. If a new "bonus series" is started, new inflows (monthly contributions and switches) will be invested in the new series and will receive different bonus rates to the existing amounts invested in the old series. MMI did in fact open a new bonus series in 2009, and all new contributions from 2009 until March 2010 were credited to this parallel new series.

In this situation, the bonuses declared on amounts invested in the New Bonus Series will typically be higher than those declared on Old Bonus Series investments – this was the pattern in the 2009-2010 period. The hope is that, over time, the low bonuses declared on the Old Bonus Series will allow the financial health of the Old Bonus Series to recover, to such a point that the Old and New Bonus Series can be combined (merged). MMI have advised that this will happen when the "funding levels" of the two Bonus Series are within 2% of each other, and indeed this occurred in March 2010 allowing the merger of the two Bonus Series with effect from 1 April of that year.

(The "funding level" is the ratio of the underlying investments that back the relevant Bonus Series, to the total liabilities that MMI has to all members invested in that Bonus Series, i.e. the total of all the Vested and Non-Vested Accounts applying to that Bonus Series. On average over the long term, the "funding level" will typically be a little higher than 100%, but it can fluctuate significantly over shorter periods.)

Switching out of the Smoothed Bonus Fund

If you have chosen to invest in the Smoothed Bonus Fund you may incur a penalty if you switch your money out of this portfolio before you have been invested here continuously for at least 5 years. (Please note this does NOT apply if you are receiving a benefit payment as a consequence of leaving the Fund.)

If you wish to switch out of the Smoothed Bonus Fund before you have been invested here continuously for 5 years, the amount you will receive is the **lesser** of:

- The total balance of your vested and non-vested accounts; and
- The market value of the underlying assets based on the actual investment return earned on your money (after deducting the cost of the guarantee, shareholder charges and the investment management fee as determined by MMI.)

In effect this means that if the investment returns have been poor and you wish to switch out before you have invested in this portfolio for 5 continuous years, you will be credited with the actual investment performance (as determined by MMI) rather than the smoothed return. If you wish to switch out after 5 years' continuous investment in this Portfolio, then you will receive the total balance in your vested and non-vested accounts. (Note however, as explained above, that MMI has the right to remove non-vested balances in certain circumstances.)

For any lump sum invested in the Smoothed Bonus Fund, the 5-year period referred to above runs separately for the lump sum from the date it is invested. Note that a lump sum is defined as any lump sum amount invested that is in excess of 20% of the member's balance in either the Old Bonus Series or the New Bonus Series at the start of the calendar year.

MMI may restrict the maximum amount that can be switched out of this Portfolio by all members of the UCT Retirement Fund to 25% of the market value of the portfolio in any one-year period, and 40% of the market value of the portfolio over any two-year period.

These provisions exist to prevent what is called "anti-selection" against the Portfolio. As a fairly extreme example of possible anti-selection, an astute investor could switch into the Smoothed Bonus Fund at the top of the market. He/she could then stay in the Smoothed Bonus Fund throughout the "bear market" benefiting from the higher smoothed returns declared and then switch out at the bottom of the market. Such an investor would draw on the "bonus smoothing reserves" of the Smoothed Bonus Fund without ever contributing to them.

Please note if a UCTRF Living Annuitant wishes to transfer their funds to a living annuity with another pension provider (an insurance company) this switching condition also applies at that time.

Smoothed Bonus Fund investments made under the Life Stage Model

As noted in the later section of this guide dealing with the Life Stage Model, there are important differences to the operation of the Smoothed Bonus Fund for members whose UCTRF investments are partly invested in the Smoothed Bonus Fund under the Life Stage model (since 1 April 2015). A detailed explanation of these differences will be provided on request. The operation of the Smoothed Bonus Fund for Life Stage members will be similar to that described above, and it is unlikely that members will be aware of the difference.

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Balanced Fund (Portfolio C)

The Balanced Fund is expected to give the highest return of the four channels offered by the Fund over the long term. Its asset allocation is similar to that of the Smoothed Bonus Fund, but it does not provide any guarantee – you are simply credited with the net return earned on the underlying assets.

Because there is no guarantee, there is no guarantee cost or shareholder charge (i.e. the return is only reduced for investment management fees.)

This channel has been designed in such a way that over the long term it targets (but does not guarantee) a net investment return of some 5% per annum above inflation.

You can expect the return on this portfolio to fluctuate quite widely from year to year (and it could even be negative). So this channel is well designed to deal with the inflation risk you face, but is less suitable for managing your "final payment risk".

The Balanced Fund will have close to 25% invested offshore at all times, as permitted by the investment regulations under the Pension Funds Act. Since 2015, the offshore allocation has been split between two foreign investment firms, **Orbis** (global equities) and **Brandywine Investment Management** (global bonds). Orbis is the "sister company" of Allan Gray Ltd. The domestic allocation of the Balanced Fund is currently split among five investment firms - **Prescient** (SA interest-bearing investments), **Catalyst** (SA listed property shares), and **Investec, Allan Gray** and **Abax** (SA equities). The equity managers may hold cash as a portion of their portfolios at any point.

Investec, Allan Gray and Orbis all follow what is called a "Value" investment style. When making an investment decision (i.e. to buy, sell or hold a share) a value manager pays a great deal of attention to minimising the risk of the share losing value (i.e. they aim to protect capital by looking for a so-called "margin of safety" when they make an investment).

This is very different from a "market" manager who will manage assets relative to the index (FTSE/JSE share indices) and will look to buy shares that are cheap and avoid the expensive ones (in their assessment) – Abax is closer to being a "market" manager than Investec or Allan Gray.

The implication is that a value manager will generally protect capital better - although this is certainly not guaranteed - but is likely to under-perform in a strong bull market. In a bull market, the Trustees and Members need to have patience and courage, as ultimately the market is likely to correct to "fair value".

The evidence is that in the longer term (7-10 years) the capital protection provided by a value manager out-weighs the periods of under-performance. Therefore in the longer term it is anticipated that a skilled value manager will deliver better performance.

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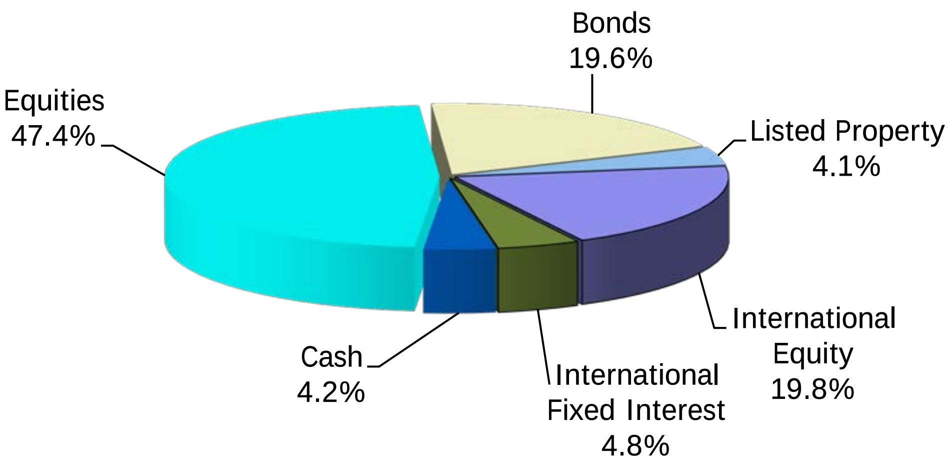
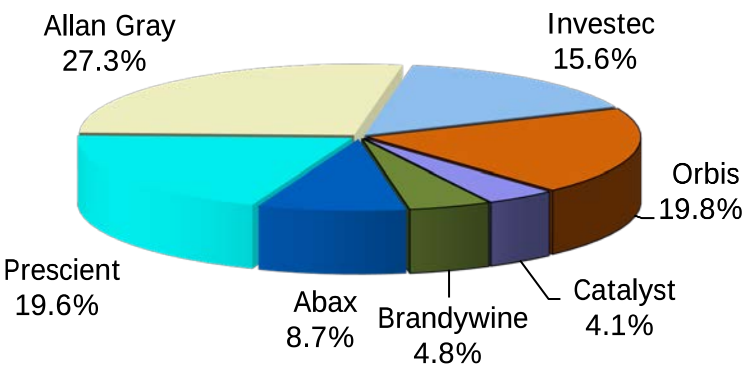
How assets of the Balanced Fund are invested

As at 31 December 2016 the assets in the Balanced Fund were invested as follows:

Asset allocation as at 31 December 2016



Manager split as at 31 December 2016



Note that the difference between the Equity percentage in the upper chart and the combined Investec, Allan Gray and Abax percentages in the chart below it, represents cash holdings included in their portfolios.

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Shari'ah Fund (Portfolio D)

The Shari'ah Fund has been set up to comply with Islamic law or Shari'ah, and has an asset allocation that is somewhat more conservative than that of the Balanced Fund. It is expected to give a return that is lower than the Balanced Fund over the long term due to the lower allocation to SA equities.

The managers have a mandate to adhere to the following key Shari'ah principles:

1. The ban on interest: Interest must not be charged or paid on any financial transaction, as interest is deemed unlawful by Shari'ah.
2. The ban on financing certain economic sectors: Companies involved in the following activities are not Shari'ah compliant:
    - Conventional financial services
    - Alcohol and tobacco
    - Non-Halaal food production or processing activities
    - Entertainment (casinos, gambling and pornography)
    - Weapons and arms manufacturing

The lower allocation to equities means that the return on this portfolio is not expected to fluctuate as widely as that of the Balanced Fund from year to year (although the return could still be negative), so this channel aims to deal with the inflation risk that you face whilst also somewhat limiting your "final payment risk". This Portfolio also has exposure to Sukuk (meaning "certificate" in Arabic) which are non-interest bearing instruments designed to replicate the payoff of a bond or cash instrument (i.e. a Sukuk is an Islamic bond).

The asset manager chosen by the Trustees to manage the Shari'ah Fund channel with effect from 1 April 2010 is **27four Investment Managers**. 27four is an independent multi-manager founded in mid-2007. The Shari'ah Fund is invested in the **27four Shari'ah Multi-Managed Balanced Fund** which complies with Shari'ah law. The underlying asset manager portfolios (which form the building blocks of this product) are selected by 27four Investment Managers based on the outcome of a rigorous due diligence process that they conduct.

Shari'ah compliance is primarily overseen by the 27four Shari'ah Supervisory Board, which is made up of three Islamic scholars who are external and independent. Mufti Ahmed Suliman (Chairman), Mufti Muhammad Ashraf Qureshi and Mufti Zaid Haspatel have extensive experience in Shari'ah Law. The responsibilities of the Shari'ah Board include:

- Checking that all legal documentation is Shari'ah compliant;
- Checking that the building blocks of the 27four Fund are Shari'ah compliant;
- Monitoring the Sukuk investments and their execution;
- Reviewing the holdings of the Shari'ah Fund on a quarterly basis.

There are two levels of oversight with regards to the Shari'ah compliance of this portfolio, as the underlying asset managers also have their own Shari'ah Boards to ensure that their portfolios (which serve as the building-blocks for the 27four Shari'ah Multi-Managed Balanced Fund) are Shari'ah compliant, while 27four's Shari'ah Board is responsible for ensuring compliance for the Shari'ah Multi-Managed Balanced Fund as a whole.

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How assets of the Shari'ah Fund are invested

The latest asset split amongst the various investment managers is shown in the following table:

Underlying investment product	Asset Class	% Split
Old Mutual Albaraka Equity	SA equities	11.0%
Kagiso Islamic Equity	SA equities	7.9%
27Four Shari'ah Active Equity Fund	SA equities	15.6%
Shari'ah Top 40 Index	SA equities	3.9%
SA Non-Interest bearing Cash	SA cash	7.7%
New Platinum ETF	Platinum (Commodities)	2.2%
New Gold Issuer Ltd	Gold (Commodities)	5.0%
Lotus Capital	Africa	0.8%
EasyETF Dow Jones Islamic Market Titans 100	International equities	11.4%
NBAD Shariah MENA Dividend Leader Fund	International equities	1.6%
Franklin Templeton Global Sukuk	International Sukuk	2.8%
Murabahah Contracts	Murabahah Contracts (SA)	30.1%
Total		**100.0%**

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Explaining your choices

What choice do I have?

Your retirement savings in the UCT Retirement Fund in effect consist of two components, namely:

- The contributions UCT has already made for your retirement savings. The amount you have accumulated in this regard is the balance in your Retirement Savings Account; and
- The on-going future contributions UCT is making on your behalf towards your retirement savings (currently 20.47% for permanent staff and 19.75% for fixed term contract staff of deemed pensionable amount).

You can choose **separately** how you want to invest:

- Your accumulated retirement savings (i.e. your Retirement Savings Account); and
- Future retirement savings

between the Income Fund, Smoothed Bonus Fund, Balanced Fund and Shari'ah Fund. Expressed another way, the choice for past retirement savings can be different to that for your future retirement savings.

How often can I exercise this choice?

- You can make this choice twice a year, namely as at 31 March and 30 September.
- The on-going administration fee covers the choice you have as at 31 March at no extra cost. However, if you wish to make a switch as at 30 September regarding where your Retirement Savings Account is invested then you must pay an administration fee which will be charged to your Retirement Savings Account in the Fund. (You can change where your future retirement savings are invested without having to pay a fee.)

Please note that if you do not send in an option form no change will be made to your investments.

The Life Stage Model investment alternative

The Trustees recognize that some members may wish to choose what is termed the Life Stage Investment Model.

The Life Stage Model is designed for members on the premise that, in normal circumstances, the best indicator of whether you need to give priority to managing inflation risk or final payment risk is your period to retirement. The Life Stage Model takes into account UCT's retirement age (the end of the year in which a member turns 65). Accordingly, if you plan to retire earlier than 65 then the Life Stage Model may not be appropriate for you.

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Since the Balanced Fund is expected to give the highest returns over the long term it is the best for managing inflation risk, particularly for the younger members with a long investment horizon (6 to 7 years or greater).

Younger members, and all members with 6 to 7 years or more to retirement who chose the Life Stage Model will therefore have all their Funds invested in the Balanced Fund. On the other hand, as returns from the Balanced Fund are expected to fluctuate quite widely from year to year, the Balanced Fund is not as good as the Smoothed Bonus Fund or the Income Fund for managing final payment risk.

With final payment risk becoming more of an issue as one approaches retirement those members electing the Life Stage Model will have their portfolio switched from the Balanced Fund to a portfolio that protects against the final payment risk.

Whilst the Smoothed Bonus Fund provides some final payment protection, there is a risk that non-vested bonuses could be removed and/or in weak markets the bonus rate could be 0% for a sustained period. A 0% bonus rate for a sustained period is problematic because as you approach retirement you have the most money in the Fund and earning a poor return at this time more adversely affects your ultimate retirement benefit.

Taking the above into account the Trustees decided that, from 1 April 2015 onwards, the pre-retirement portfolio would be a **blend** of the Smoothed Bonus Fund and the Income Fund, and that members who opt for the Life Stage Model will be transitioned near retirement as shown in the table below:

AGE*	Strategy for the balance already accumulated in the Fund	Future contributions strategy
59 years or less	Balanced Fund	Balanced Fund
60 years	Your accumulated balance will be restructured as shown in the right hand column	80% Balanced Fund 10% Smoothed Bonus Fund 10% Income Fund
61 years	Your accumulated balance will be restructured as shown in the right hand column	60% Balanced Fund 20% Smoothed Bonus Fund 20% Income Fund
62 years	Your accumulated balance will be restructured as shown in the right hand column	40% Balanced Fund 30% Smoothed Bonus Fund 30% Income Fund
63 years	Your accumulated balance will be restructured as shown in the right hand column	20% Balanced Fund 40% Smoothed Bonus Fund 40% Income Fund
64 years	Your accumulated balance will be restructured as shown in the right hand column	50% Smoothed Bonus Fund 50% Income Fund

* The transitions indicated in the above table occur on the 1 April of the calendar year in which you turn the relevant age.

Please note that if you choose the Life Stage Model your investment strategy will automatically be changed as described above. The Life Stage Model strategy may not be suitable if:

- You plan to retire much before 65; and / or
- You have a lower or higher "appetite" for risk than the Life Stage Model; and / or
- You plan to invest your retirement savings in a living annuity when you retire.

What happens if I don't exercise a choice when I join?

You will be asked to submit a member investment option form when you join the Fund. If you don't exercise a choice when joining the Fund your retirement saving contributions (past and future) will be invested in the Income Fund until 1 April immediately following your entry into the Fund and then for a further year thereafter, unless you submit an investment option form in the meanwhile. So, if you join in March of one year, and do not submit an option form, you will stay in the Income Fund until 1 April of the following year. If you join in April of one year, and do not submit an option form, you will stay in the Income Fund until the following 1 April and then for a further year thereafter. At the expiry of this period your money will be invested according to the Life Stage Model (for both past and future contributions).

You will have the choice to change your strategy as at 31 March and 30 September each year.

(Note that, unless you submit the option form immediately on joining the Fund, your accumulated retirement savings will remain invested in the Income Fund until the next switch date after you do submit the option form, i.e. the 31 March or 30 September after you submit the form. Your monthly contributions for retirement saving will however be invested in accordance with your instructions as soon as reasonably possible after the form is submitted.)

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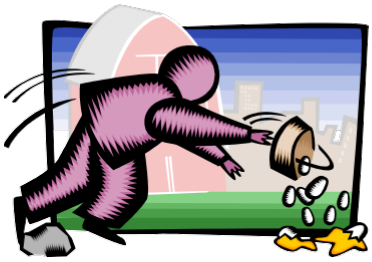
Common mistakes

Too conservative an investment strategy

The South African and international experience is that when faced with investment choice, members often choose too "conservative" a channel relative to the risks they face.

This error can have severely negative financial consequences. For example, if a 25 year old member decides to invest his/her retirement savings in the Income Fund over his/her entire working life (i.e. for 35 to 40 years), he/she could end up with a pension some **35% to 50% less** than had he/she invested more appropriately in the Balanced Fund for the majority of the time.



So, if you are young and you are not concerned about your final payment risk, you should invest primarily to manage your inflation risk.

Trying to time the market

Experience shows that some members **believe that they can "time" the share market**. This means they try to get out at the "top of the share market" and buy back in at the bottom of the share market.

The reality is that the vast majority of expert investment managers cannot "time" the market effectively. Expressed another way, it is very difficult to get the market "timing" right consistently.

The evidence shows that Retirement Fund members who try to "time" the market usually get it wrong. The evidence also shows that members chase the share market when it is near its highs (the worst time to do so) and avoid the share market after a sharp fall (often the best time to get back into the share market).

If you can consistently time the market correctly, you are almost certainly in the wrong job!

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