

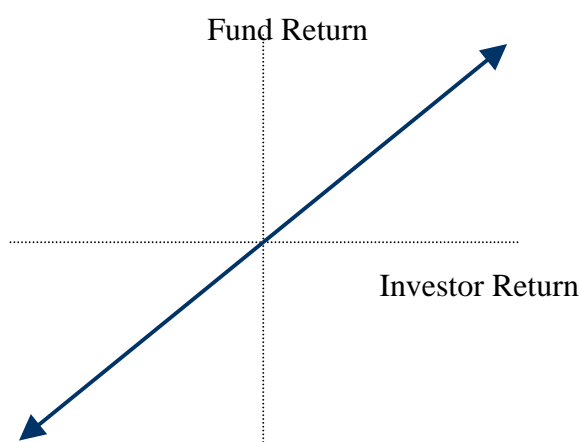
Capital Guaranteed Funds: Some Observations

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In the last twelve months or so, Singapore has witnessed the launch of a number of 'hedge' funds in the retail market place. However, we don't mean the high profile products operated by the likes of Long Term Capital Management or George Soros. Instead, we mean the capital guaranteed or principal protected types of funds that have become reasonably prevalent in Singapore. These products enable investors to 'hedge' downside risk – that is, the risk of losing principal.

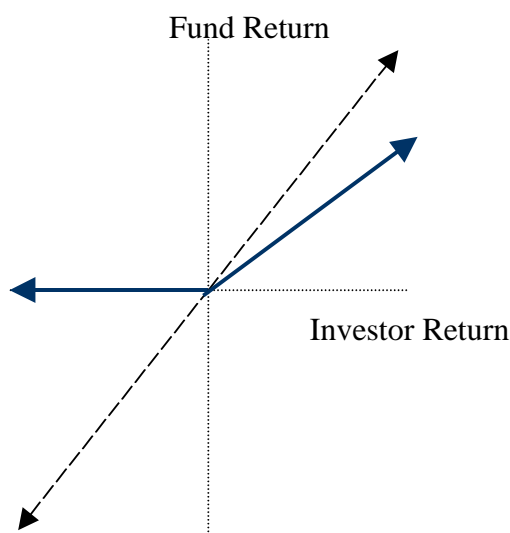
In this article, we will try to explain the principles behind these types of funds and the different types of funds available in the Singapore market place. We would stress the point that we will 'try to explain', since the design of some products can be quite complicated and difficult to understand.

In a normal investment product, the return achieved by an investor is equal to the return achieved by the product (net of expenses). This can be represented by the following diagram.



That is, if the fund earns 5% per annum, the investor gets 5% per annum. If the fund earns -5% per annum, the investor gets -5% per annum.

In a capital guaranteed or protected product, the situation changes. The relationship between fund return and investor return typically changes to something along the lines presented below:



In this case, if the fund earns -5% per annum, the investor gets a zero return and the original principal or capital invested is protected. If the fund earns 5% per annum, the investor will tend to get a return that may be somewhat less than 5% per annum.

There are two main types of capital guaranteed or protected products available in Singapore. These can be broadly described as:

- Passive type products. In such a product, the bulk of the amount invested is used to buy low risk assets that are expected to accumulate in value over the term of the product to protect the full value of the original capital. The rest of the amount invested is then used to buy options, from which the potential upside of the product is expected to be obtained.
- Active type products. In a sense, these are similar in nature to the balanced products offered as normal investment products. The difference is that there is a guarantee given that the eventual return of the product will not be negative.

We will now expand on each of these approaches.

Passive-Type Products

Let us assume you invest \$1,000 into one of these products for a three-year term. The product is assumed to provide participation in the increase in the MSCI World Index. What happens?

As indicated above, most of the \$1,000 will be invested in low risk assets. The manager expects that the amount invested in low risk assets will grow to at least

\$1,000 at the end of three years, thus providing the means for the return of the original principal. The current yields in Singapore on three-year bonds are around 3% per annum. On this basis, the manager needs to invest around \$915 into such bonds. The \$915 is expected to grow to \$1,000 over the three-year term of the product.

The remaining \$85 would then be used to buy a call option on the MSCI World Index. A call option gives its holder the right, but not the obligation, to purchase an asset at a pre-determined date for a pre-determined price. In the case of our example, we will assume that the pre-determined date is in three years' time and the pre-determined price is today's value of the MSCI World Index, which we will assume is 1200. This pre-determined price is also called the exercise price.

In this way, if the MSCI World Index at the end of three years exceeds today's value, the manager will exercise the option and realise a gain equal to the increase in the MSCI World Index over the three years is achieved. If the MSCI World Index at the end of three years is below today's value, the option expires worthless.

The mathematics associated with pricing options is complex and is well and truly beyond the scope of this article. However, a few basics are worth knowing; namely the option price will generally be higher:

- the higher the current price of the underlying asset is relative to the exercise price;
- the longer the time remaining until the option expires; and
- the greater the risk associated with the underlying asset.

The last point is important in that, all things being equal, it will cost more to buy a call option on a high-risk asset than a lower risk asset.

We will assume that the cost of the option to buy the MSCI World Index at 1200 in three years' time is \$17 per \$100 contract. Therefore, to get full participation in the potential increase in the Index for the original \$1,000 invested, the manager needs to buy 10 contracts. However, the manager only has \$85 to buy options and, as such, can only buy 5 contracts. This will give the product 50% participation in the increase in the MSCI World Index. Therefore, if the MSCI World Index were to rise by 20% over the three years, the product would, all things being equal, only benefit from half of this rise.

We should point out the influence of local interest rates on these types of products. If the yields on three-year bonds were 6.4% per annum (as against 3% per annum), then the manager would only need to invest \$830 in the low risk asset, leaving \$170 to buy options. This would lead to full participation in the MSCI World Index, rather than 50% participation as shown above.

The above example is relatively straightforward. Some of the products that have been made available in Singapore are considerably more complex in terms of the manner in which the option exposure in the product is structured.

Active-Type Products

As indicated above, these products are similar in nature to traditional balanced funds. However, rather than trying to outperform a pre-set benchmark, the manager is focused on maximising absolute returns. The guarantee on maturity of the product is that the return will not be negative.

Managers operating these products have a variety of different approaches. Some effectively manage the product like any other balanced product. Others have quite complicated asset allocation processes that basically involve increasing the exposure to more risky assets as the fund's net asset value ("NAV") increases and then to reduce the exposure to risky assets as the NAV declines. That is, the manager takes on more risk when the chance of the guarantee being exercised reduces. After all, the manager doesn't want the guarantee to actually be required. In this sense, a manager is managing its own business risk as much as it is the investment risk on behalf of investors.

Performance to Date of Guaranteed Funds

The performance of capital guaranteed and principal protected funds is monitored by Mercer along with the other investment products included in the CPF Investment Scheme. The following table summarises the performance to the end of September 2001 of the funds that have more than a three-month performance track record. For comparison purposes, we have also shown the relative return that would have been earned over the same time period from earning the CPF Ordinary Account interest rate of 2.5% per annum. It should be noted that the performance numbers in the following table are *not* annualised.

Fund Name	Inception Date	Since Inception Returns		
		Fund Return	CPF Ordinary A/c Rate	Excess Return
AXA-SGY Europe Preservation Growth Fund	May-00	-1.2%	3.3%	-4.5%
AXA-SGY Europe Preservation Growth Plus Fund	Mar-01	0.5%	1.2%	-0.7%
DBS UP Guaranteed Fund - 5.0/2	Mar-01	-2.1%	1.2%	-3.3%
DBS UP Guaranteed Fund - 7.0/2	Mar-01	-1.5%	1.2%	-2.7%
OAC Capital Protected Investor - Europe	Jan-01	-7.6%	1.7%	-9.3%
OAC Capital Protected Investor - Global	Jan-01	-6.5%	1.7%	-8.2%
OCBC Capital Guaranteed Investment (Aug 2003)	Mar-01	0.5%	1.2%	-0.7%
Optimix Continuous Click Fund S&P 500 - SGD	Jul-00	-10.1%	2.9%	-13.0%
PruLink Global Life Sciences Guaranteed Fund	Jan-01	-0.9%	1.7%	-2.6%
PruLink Global Life Sciences Guaranteed Fund II	Feb-01	-2.9%	1.5%	-4.4%
PruLink Global Top 50 Guaranteed Fund	Nov-00	-2.0%	2.1%	-4.1%
PruLink Japan Equity Guaranteed Fund	Nov-00	-4.3%	2.1%	-6.4%
PruLink Technology Guaranteed Fund	Feb-01	-0.9%	1.5%	-2.4%
PruLink Technology Guaranteed Fund II	Nov-00	-5.8%	2.1%	-7.9%
SGY Dynamic Tri-Sector Fund	Apr-01	-7.5%	1.0%	-8.5%
SGY S\$ Capital Guaranteed Global Growth Fund	Jan-01	-6.2%	1.7%	-7.9%
UOB United Capital Guaranteed Fund	Mar-01	-1.9%	1.2%	-3.1%

Of the 17 funds shown in the above table, only two have, to date, achieved positive returns. All funds have underperformed the return attributable to the CPF Ordinary Account, although it needs to be noted that the performance for many of these funds is quite short.

An investor may wonder how, if some of these funds provide a capital guarantee, the above table is showing negative returns. The point to note is that the manager is valuing the funds on a continual basis. With the decline in equity markets, the value of a fund's exposure to equities (either directly or indirectly through the option exposure) will have declined.

Some Things to Consider

In these uncertain times, capital guaranteed or principal protected funds enable investors to almost take a bet both ways. In the case of the MSCI World Index product discussed above, for an investor who thinks the MSCI World Index *may* rise over the next three years, this type of product enable the investor to express that view. Of course, if the investor thinks the Index *will* rise over that period, then the investor will be much better off to buy a global equity fund than a capital guaranteed fund since the full benefit of the upside will be obtained.

Capital guaranteed or principal protected funds may have a legitimate role to play in the investment strategy of an investor with a short time horizon. An example of this may be an investor close to retirement who wants to have some participation in equity market upside, but due to the proximity of retirement cannot tolerate the potential downside that equity market exposure brings.

For CPF members looking to invest in a capital guaranteed or principal protected product, one important issue to consider is the expected return over the term of the product and how this relates to either the CPF Ordinary Account rate or the Special Account rate, depending from where you withdraw your investment.

Again, using the MSCI World Index product discussed earlier, all things being equal, the MSCI World Index would need to rise by at least 5% per annum over the three-year product to leave the investor with a better return than would have been obtained had the investor left the amount in the CPF Ordinary Account and earned 2.5% per annum. For the Special Account, the hurdle rate would rise to at least 8% per annum. These hurdle rates recognise that the product only has a 50% participation in the upside of the MSCI World Index – the hurdle rates also don't take into account the impact of the sales charges that may be incurred in making the initial investment. Of course, the CPF Ordinary Account and Special Account rates could increase over the term of the product since it needs to be recognised that the current rates are as low as they can go.

Investors should also make sure they understand the general terms of the product. For instance, is your original investment into the product actually guaranteed or is the capital just "preserved" only by the design of the product. Is the guarantee provided in Singapore dollars or is it in some other currency? It pays to read the fine print.