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Alternative Investment Strategies Review

The Secrets of Capital Guaranteed Investing

By

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Despite their reputation as aggressive risk-takers, offshore investors are surprisingly fond of products that limit or even eliminate downside risk. So-called Capital Guaranteed products have been top sellers in the offshore market for at least ten years. And unlike their domestic counterparts, which traditionally have been wrapped within an annuity product and sold to middle income investors, as an offshore product Capital Guaranteed programs are being sold directly to sophisticated high net worth individuals and institutions.

There are many variations on the theme of a Capital Guaranteed product, but they all generally have the following aspects in common. First, an investor must fully invest in the product at the outset. Second, the investor must hold the product until maturity in order to benefit from the Capital Guarantee. Third, the actual guarantee itself is made by a triple-A rated third party, usually an insurer, a bank, or a government entity. And finally, the product offers an opportunity to participate in the positive profits of a specified market index or underlying investment strategy.

On the surface it almost seems as though Capital Guaranteed products represent the Holy Grail of investing…

Within these parameters Capital Guaranteed products can also exhibit great variety. The sources of positive return typically offered in the product run the gamut, from a simple promise to participate in some fraction of a specified market's upside return (for example, 80% of the positive returns from the S&P 500) to a promise to share in the returns from an underlying hedge fund or fund of funds program. Many Capital Guaranteed products also employ leverage, since the Capital Guarantee often makes investors far more comfortable with this more aggressive approach to investing.[1] Capital Guaranteed products can also offer not only a guaranteed return <u>of</u> principal, but also a guaranteed return <u>on</u> principal. The most aggressive products offer a "profit lock-in" feature, in which any intervening profits earned in the risky underlying investment program are "locked-in" and guaranteed to be paid at maturity.

On the surface it almost appears as though Capital Guaranteed products represent the Holy Grail of investing –

[1] See the EquiBridge companion article, *Secrets of Leveraged Investing*, for an explanation and review of the practice of using leverage.

all of the upside the market (or an underlying strategy) has to offer, and none of the downside risk. So how do they do it? And where's the catch, if any? In this guide we will take you into the inner workings of how these Capital Guaranteed products work and analyze their benefits and drawbacks.

The Mechanics of Capital Guarantees

While the core of every Capital Guaranteed product is a capital guarantee, there are actually several distinctly different approaches to providing the guarantee. These approaches have evolved over time, and often depend on how the positive returns of the product are to be guaranteed. We choose to highlight three of the most common methods, in the order in which they were historically introduced to the marketplace.

Zero Coupon-Based Methods

The earliest Capital Guaranteed products, launched in the early 1980's, focused on using a portion of the assets invested into the Capital Guaranteed product to purchase, at the outset, a complete guarantee of the return of principal from a creditworthy third party. In this approach, the investment manager of the Capital Guaranteed product receives the full amount of the client's investment initially, pays a significant percentage of those proceeds to an institution that guarantees the ultimate return of principal, and then invests the remaining proceeds in the intended underlying investment program.

So how do you "pay" to insure the return of your money? There are several alternatives, all of which are premised on the basic idea of the "zero coupon bond." A zero coupon bond is a fixed income instrument which, for a given price today, will return its full par value at some point in the future, with no intervening payments made or received along the way. Simply put, you pay one fixed (smaller) payment today, in exchanged for receiving one fixed (larger) payment later. To insure the reliability of this return of principal, a zero coupon bond guaranteed by the US government is the preferred instrument.

Alternatively, an upfront payment can be made to an insurer or a bank to purchase a "guaranteed investment contract," or GIC. A GIC is essentially a zero coupon bond, except that it is customizable to the terms needed and is issued by a private company rather than a government. A GIC also differs from a government zero coupon bond insofar as a government repays through the future taxation capacity of the issuing government, whereas a GIC is not. Repayment of a GIC by an insurer is usually the result of the active (albeit conservative) investment process applied by the insurer to the money received for the GIC, coupled with the full faith and credit that the company will stand behind the GIC promise even if its internal investment results are not positive.

While GIC's may not have the certainty of repayment that a major government would have, the active management process of the insurer allows GIC's to pay a higher yield (i.e., to be bought at a lower price).[2]

[2] A lower price for a GIC or a zero is preferred, because it leaves more of the investor's proceeds to invest in the underlying market or strategy, in the hopes of earning higher guaranteed returns.

Nevertheless, the purchaser of a GIC need not be concerned as to what methods the insurer uses to meet their obligation, just as the zero coupon bond purchaser need not worry which segment of society will be taxed to repay the zero coupon bond – repayment is guaranteed by the issuer regardless of the method used by the institution to meet the repayment obligation. You need only worry about the ability of the institution to meet its obligations, which in the case of the US government or a triple-A rated insurer is very strong.

Two questions arise, then, when considering the use of zero coupon bonds or GIC's to provide a capital guarantee: first, how much money will be left over for investment purposes once the capital guarantee has been purchased, and second, what impact does the purchase of the capital guarantee have on returns from the underlying investment program?

The answer to both questions depends entirely on how much the zero or GIC will cost. The cost of the zero or GIC in turn depends on two factors – how far in the future is the capital guarantee, and how high is the current level of interest rates. The following table illustrates how much of a theoretical $100,000 investment in a Capital Guaranteed product must be spent in order to achieve a full guarantee at the end of the time period specified:

TABLE 1:
COST OF A ZERO COUPON BOND

Yield	5 Years	7 Years	10 Years
4%	82%	76%	68%
5%	78%	71%	61%
6%	75%	67%	56%

Interpreting this table is relatively straightforward. Take as an example the 5% yield, 10-year zero coupon bond. The table suggests the cost of such a bond is 61%, which means that if a 5% interest rate is the prevailing rate, an investor would have to pay approximately $61,000 today to be assured of being repaid $100,000 in 10 years.

Table 1 teaches us two lessons: first, a capital guarantee comes cheaper if we are willing to wait longer for the return of our principal; second, a capital guarantee can be more cheaply established if we are lucky enough to purchase it during a prevailing period of higher interest rates. The high level of interest rates prevailing early in the 1980's (not mention the tendency of the stock market to decline) helps explain not only why Capital Guaranteed products were developed during that time but also why they were initially implemented using zero coupon bonds.[3] Indeed, establishing a 10-year capital guarantee with interest rates at 10% would only require an investor to part with 40% of his cash, a far cry from the nearly 70% cost for a 10 year capital guarantee when rates stand at 4%.

If you are an investment manager, however, and you must give over between 40% and 70% of your client's money to buy capital protection, how is that going to affect your investment performance? The answer is significantly.

[3] Another key reason for the development of Capital Guaranteed products during that period is that the US Treasury, by establishing its STRIPS program in 1985, greatly enhanced the then-developing market in zero coupon bonds.

The following table works under the assumption that an investment manager has at his disposal three investment programs earning 15%, 25%, and 35%, respectively. It also assumes that he has been asked not only to manage money in these programs, but also to provide a capital guarantee. The capital guarantee can be purchased at a 5% yield for any of several time periods.[4] Table 2 illustrates how much the investment return is reduced by purchasing the capital guarantee:

TABLE 2
IMPACT OF A CAPITAL GUARANTEE

Return	5 Years	7 Years	10 Years
15%	7.5%	8.5%	9.9%
25%	10.7%	13.2%	16.5%
35%	14.5%	18.9%	24.2%

As our example, let's assume the investment manager could earn 25% per year for 10 years on a client's money in the absence of any requests for a capital guarantee. Table 2 suggests that if a capital guarantee is requested (and can be purchased over 10 years at a 5% yield), the manager's 25% return in his underlying program would be reduced to 16.5%.

Why the sharp reduction in return? Recall that a 10 year capital guarantee at 5% would cost 61% of the client's investable money. This leaves 39% of the money to be invested in the program. Instead of deploying 100% of the money in an investment that earns 25% per year (and thus earning the full 25% per year on the investment), the manager now has available only 39% of the money at 25% per year (the rest being invested, effectively, at a 5% per year return). The result is a reduction from a 25% return to a 16.5% return.

Table 2 teaches us two lessons about the use of zero coupon bonds to ensure a capital guarantee. First, the presence of a capital guarantee will always lower expected return on an underlying strategy. That reduction is unavoidable, given that the capital guarantee comes with a cost.[5] Second, the impact of a capital guarantee on the return of an underlying strategy lessens with time – if you wait long enough for the capital guarantee to pay off, it will have a minimal impact on the return of the underlying strategy being protected.

So if the presence of capital guarantees always lowers returns, and if you must wait long periods of time for capital guarantees not to impact your investment returns, what is the benefit of a capital guarantee?

Lost in the shuffle of all this discussion of lowered expected returns is the question of risk. As we analyzed what a capital guarantee would do to expected return (lower it, in all cases), we did not examine what a capital guarantee does to risk. When we add risk to the equation, we recognize the fact that while an investment may have an <u>expected</u> return of 15%, it may also have an <u>actual</u> return much lower (or

[4] When the same interest rates prevail across a wide array of time periods this is known as a "flat yield curve." More commonly, interest rates rise when money is lent for longer periods of time (a rising yield curve), but this fact does not fundamentally alter our analysis.

[5] Theoretically the presence of a capital guarantee could raise the overall return of an underlying investment program, but only if the risky underlying investment program has an expected return lower than the yield on the riskless zero coupon bond. This is highly unlikely.

higher) than that when it is actually implemented. Some of those actual returns could potentially be negative. A capital guarantee essentially "chops off" all those possible scenarios where our underlying investment strategy would have negative returns. This is a tremendous benefit to investors.

The fact that a reduction in risk takes place with a capital guarantee does not make a Capital Guaranteed product the right product for all investors, any more so than the previous analysis showing the reduction of expected return assures that a Capital Guaranteed product would be a poor choice for most investors.

The combination of reduced return with reduced risk simply means that **the Capital Guaranteed product is for a specific type of investor – one for whom the reduction in risk is far more valuable than its reduction in return. In other words, Capital Guaranteed products meet the needs of moderate to highly risk averse investors.** This would include older investors, investors for whom the investment in the product represents a significant amount of wealth, or investors who wish to invest in more aggressive markets but are afraid of the downside potential in the absence of a guarantee.

Other investors may be more desirous of return, and may consider the reduction in risk inconsequential, and as such, Capital Guaranteed products might not be best for them. But there is certainly a broad market for Capital Guaranteed products, as the explosive growth in such products over the last 10-20 years will attest.

Derivative-Based Methods

The sharp fall in interest rates throughout the 1980's made the direct purchase of capital protection through fixed income instruments more and more costly. At the same time, growth in the markets for derivatives, most notably financial derivatives, opened all new doors for capital protection.

The derivative-based approach to capital protection is fairly similar to the zero coupon-based approach, but the unique nature of derivatives also allows for certain variations of Capital Guaranteed products not previously available. In particular, the use of derivatives allows for shorter-term guarantees (which were previously prohibitively expensive), and led to the introduction of the concept of a "participation rate" in the underlying strategy.

Most capital protection programs that utilize derivatives start with the core concept of a derivative known as a "call option." A call option is a special financial instrument which will, for a price, pay an investor the positive gains (if any) in an underlying investment strategy but will not penalize the investor for its negative losses (if any). A call option is good for only a specified period of time – if you want to play again you must pay again.

The following table provides the theoretical costs of buying a call option for differing lengths of time. It also varies the cost based on how much of the market gains you wish to keep. You might only want 80% of the upside (again, with none of the down side), or you may want all (100%) of the upside,

or you might even want to be paid all of the upside (100%) plus a bit more (say 20% more). Any of these combinations can be had – for a price. The prices (per $100) are given in Table 3:

TABLE 3
PRICE OF A CALL OPTION

Participation	1 Year	2 Years	3 Years
80%	$3.25	$7.94	$12.41
100%	$10.45	$16.14	$20.94
120%	$24.59	$29.13	$33.20

The values quoted above are theoretical, and are based on certain additional assumptions.[6] Actual prices of call options in the marketplace may vary. But if we take these numbers as indicative, we see that, for example, if we wanted to earn all (100%) of the profits over the next two years that a $100 investment in an underlying strategy would earn, we would have to pay $16.14 right now. If we wanted to earn only 80% of the profits of the underlying strategy over the next three years, we would have to pay $12.41 right now, and so on.

Table 3 teaches us two very simple, very obvious lessons. First, if you want to participate in a larger percentage of the profits of a strategy through a call option, you must pay more. Second, the longer the period in which you want to participate in the upside, the more it is going to cost you. Note that in both cases you would have to pay a price now for only the possibility of future profits – with no guarantee they will occur.

[6] For those familiar with option strategies, the table assumes a 20% annualized volatility in the underlying strategy and a 5% risk-free rate over the call option's life.

So how would a call option help us in the creation of a Capital Guaranteed product? Consider the following. Let's say you were given $100 to invest in an underlying strategy for three years. If you were able to buy a zero coupon bond over that period for any price less than or equal to $87.59, then you would have at least $12.41 left to buy an 80%-participating call option over the same three year period. Likewise, if you were able to buy a zero coupon bond for any price less than $79.06, you would be able to buy a fully-participating (100%) call option over the same period. (for purposes of reference, a three year zero coupon bond with a 5% yield would cost $86.38 – suggesting you could buy a call option that lets you participate just a little bit better than 80% in the strategy's upside gains).

Thus a call-option-based protection strategy involves buying a zero-coupon bond for the time period of interest, seeing how much money is left over after the purchase, and buying the highest participating call option you can afford with the remainder.

As a practical matter, then, many Capital Guaranteed products let their advertised participation rates float with the general price levels of both the market for zero coupon bonds as well as the market for call options. The products are fixed as to term, minimum investment size, and the underlying investment strategy, but float as to their participation rate – which is then firmed up at the time it is sold to investors.

We've seen through our discussion above that the introduction of derivatives to the world of capital guarantees gave

us two added levels of freedom – the ability to do shorter-term capital guarantees as well as to offer varying participation rates. The added complexity of derivatives also allow for numerous other variations. We could spend quite a bit of time on each, but only a few will be highlighted below:

- Use of Coupon Bonds – Since prices may only allow for a participation rate of less than 100%, some investment managers use coupon bonds instead of zero coupon bonds as the underlying investment vehicle, in order to enhance yield. This adds a bit of risk, but also enhances returns.

- Put Options – A put option is, to some extent, the reverse of a call option, insofar as it compensates its holder for any market losses, while otherwise not participating in the upside gains of the market. A Capital Guaranteed product can be created by using put options to create the guarantee (by offsetting any losses), and utilizing the rest of the investable cash (over and above the cost of the put) for the actual investment strategy. Unfortunately due to a quirk in the options market, put options tend to be far more expensive than call options, and do not often serve to anchor capital guaranteed products. Analytically they do form the basis for the third capital guarantee methodology, however, as we will see later.

- OTC Derivatives – An "over-the-counter" (OTC) derivative is a customized option offered directly by a financial institution rather than bought or sold on an organized options exchange. While OTC options are generally more expensive to buy than those traded on the exchange, they have certain very compelling advantages. An OTC option can be customized directly to the underlying investment strategy, opening the door for a far broader array of investment strategies to offer capital guarantees. For example, hedge fund strategies that are "market neutral" are often difficult to guarantee through the use of exchange traded options, but a customized OTC derivative can be negotiated exactly to the expected risks and returns of the market neutral strategy.

Next Generation – Dynamic Portfolios

There is some debate as to which generation of capital guarantee methodologies – Derivatives or Dynamic Portfolios – represents the current cutting edge of creating Capital Guaranteed products. Some argue that the era of using Dynamic Portfolio techniques (particularly those known as Portfolio Insurance techniques) for any purpose ended in 1987, when most major portfolio insurance programs failed under the weight of the severe market drop that infamous October. Others argue that Dynamic Portfolio techniques are making a comeback, particularly as the anchor for Capital Guaranteed products.

Regardless of the degree to which they are in vogue, Dynamic Portfolio techniques are being used in Capital Guaranteed products. There are two approaches to Dynamic Portfolio Management: Contingent Immunization

and Portfolio Insurance. Let's review each in turn.

Contingent Immunization is a very close cousin to our early generation strategy of using zero coupon bonds. Simply put, Contingent Immunization is the dynamic version for which our simple zero coupon bond strategy was the static version.

Contingent Immunization starts out exactly as did our zero coupon bond strategy. If the manager receives $100 to manage in a Capital Guaranteed program, and if a fully-protecting zero coupon bond costs $70, then the remaining $30 is invested in the risky underlying investment strategy.

If done properly, the Contingent Immunization strategy should lead to higher returns than the simple zero coupon bond strategy…

If we assume the risky strategy does not work out well, and the value of the risky investment falls to, say, $20, then no change is made. If nothing improves, indeed even if we lose the entire investment in the risky strategy, the zero coupon bond will eventually mature, return our $100, and our capital is guaranteed.

If on the other hand our risky strategy improves in value right away from $30 to $40, then we have $10 of profit that can serve as a "cushion" in our pursuit of higher returns. Indeed, for as long as that "cushion" exists, we could reduce our protective zero coupon bond position by $10 (since we have accumulated $10 in profit on the risky strategy) and invest that extra cash in the risky strategy. If the risky strategy begins to fall in value (and our profit cushion starts to evaporate), we can simply liquidate enough of the risky asset to bring our zero coupon bond holdings back to whatever value ensures the ultimate return of capital at the end of the investment period.

Contingent Immunization, then, is simply the process of taking a little risk with our zero coupon bond position (by reducing it below the minimum necessary to guarantee capital return) every time we have earned a "profit cushion" in the risky strategy, but running back to our full necessary zero coupon bond position any time our risky strategy starts to fall in value. If done properly the Contingent Immunization strategy should lead to higher returns than the simple zero coupon bond strategy without the creation of any significant risk that we will fail to meet the capital guarantee provision at the end of the investment period.

Portfolio Insurance is similar to Contingent Immunization insofar as (a) it involves the simultaneous holding of zero coupon bonds plus an investment in the risky strategy and (b) it involves frequent rebalancing between the zero coupon bonds and the risky asset as time goes by, based on a set of rules. But the similarity ends there.

Portfolio Insurance techniques are extremely complex and data-intensive. They seek not to rely on the protective powers of zero coupon bonds *per se*, but to replicate (or, as they say in the industry, "synthesize") a "protective put strategy." A protective put strategy is a

term used in the world of options which essentially means the same as a capital guarantee. A protective put position is an investment in a risky strategy that is protected by owning a put option. A protective put position covers your downside losses while allowing you to participate in upside gains, effectively the same as a Capital Guaranteed product.

So if the Portfolio Insurance method does not rely fully on the protective power of the zero coupon bond, how does the manager know how much to invest in zero coupon bonds vs. the risky strategy? And if, like the Contingent Immunization approach, the manager is supposed to shift from risk-less zero coupon bonds to the risky investment strategy when the strategy performs well (and vice versa when it does poorly), how does the manager know how much of the zero coupon bonds to sell and then reinvest in the risky strategy? This is an extremely complicated question, requiring extensive financial modeling and computing expertise. The manager must have a very good handle on the yield curve, on market volatilities, and on the liquidity of the instruments being traded, to name just a few factors.

Without going into extensive detail, suffice it to say that the formulas developed to help us price a put option also help to tell us how to replicate a protective put position by holding a riskless vs. a risky asset in various proportions. And unlike an actual put option, which we previously noted sells at particularly high prices in the market place, the synthesizing of the put option (i.e., the Portfolio Insurance process) can be accomplished at a lower cost.

An Analysis of the Methodologies

Each of the Capital Guaranteed methodologies discussed previously has its advantages and its disadvantages. None is fully superior to the other. Each is discussed in turn below.

Zero Coupon Based Strategies

The main advantage of zero coupon-based strategies is that there is little, if any, risk that the capital will not be guaranteed. The same cannot be said of the other methodologies, as we will discuss momentarily. If a triple-A credit quality zero coupon bond is purchased initially, in its full amount and for the correct maturity date, there is little if any chance that the investor's capital will not be returned.

A second advantage is the lack of limitations placed on the nature of the risky strategy. Once the capital guarantee is purchased, the remaining cash can be invested in any strategy of the manager's choosing, and can be managed without regards to the nature of the capital guarantee.

On the other hand, the approach of using static zero coupon bond based methodologies has certain drawbacks. These include:

- Lower Returns – The zero coupon bond approach more than likely will suffer the weakest returns of all three methodologies because of the high percentage of proceeds which must, at initiation, be devoted to buying the insurance through the zero coupon bond.

- Sensitivity to Rate Environment – When interest rates are high, the zero coupon bond approach has its greatest attraction, primarily because high rates lead to lower costs on the zero coupon bonds, which allow more money to be invested in the risky strategy and hence higher returns. However, during periods when interest rates are low, the cost of the capital guarantee can be much higher, especially over short time periods. There can be no assurance that periods of higher interest rates will correspond to times when investors most want capital protection, such as in the middle of a bear market.

- Limited to Longer Time Periods – Relative to the other approaches, the zero coupon bond approach can be moderately limiting as to the time period for the capital guarantee. For example, short-term (3 years or less) capital guarantees are often too expensive regardless of the interest rate environment when using zero coupon based methodologies.

Derivative-Based Strategies

We have already seen that derivative-based strategies have the added flexibility of being able to accommodate both shorter-term capital guarantee programs as well as programs that seek to pay out a proportion of upside gains (including proportions in excess of 100%). Derivative-based strategies can also make use of the fact that derivatives are actively traded on large exchanges, minimizing liquidity and creditworthiness issues. And we have seen that, if need be, derivatives can be "manufactured" to meet whatever capital guarantee situation arises.

On the negative side, derivative-based strategies have a few shortcomings:

- Traded Maturities are Limited – While there is a wide array of exchange traded options covering numerous markets and numerous securities, few of those options have expirations longer than one year. Since most capital guaranteed products extend longer than one year, the options must be reinvested, at a future expense not currently known, or a customized option must be acquired.

- Some Options Don't Trade - Certain strategies (such as hedge funds) have no equivalent market option contract. In all circumstances options can be customized and created, but the expense is usually greater than for exchange-traded options (which then lower the returns on the strategy).

- Participation Rates Can't be Assured Since the prices of both the zero coupon bonds and the options themselves can vary, there is never an assurance that a given participation rate (such as the always popular 100%) will be available.

Dynamic Portfolio Strategies

Probably the strongest advantage of the Dynamic Portfolio methodologies is that they are likely to achieve the highest rates of return. Certainly relative to the zero coupon based methodologies, which hold firm in their commitment to full protection via zero coupon bonds

even when a substantial protective profit cushion has been established with the risky strategy, the Dynamic Portfolio methodologies offer additional opportunities for higher return.

The Dynamic Portfolio strategies also are likely the most flexible of all the Capital Guaranteed strategies. Any investment strategy can be utilized, any time period can be chosen, any participation rate can be replicated (although potentially at the cost of some downside protection).

The Dynamic Portfolio strategies really only have one shortcoming – the Capital Guarantee has some risk of failure. Of course if the product has been issued by a strongly creditworthy issuer, this is the issuer's problem, and not the investor's problem.

The primary cause of this risk is a market phenomenon known as "gapping." When a market gaps, it moves from one price level to another price level so quickly that there is no opportunity to trade at any intervening price. This isn't a problem if the gap is small, but it can be problematic for a Dynamic Portfolio strategy if the gap is large. If, for example, the market drops by more than enough to wipe out the cushion built up in the risky asset program before the investment can be reduced then there is insufficient capital remaining to replenish the full complement of zero coupon bonds necessary to ensure the capital guarantee at the end of the investment period.

For those who would say this is but a small and rare risk, one need only look to October 1987, when the market gapped lower by more than 20% relatively quickly. Numerous portfolio insurance programs were undercut that day, and were incapable of achieving their promised results. While not necessarily likely to occur again, it remains a risk. But as we stressed above, this risk is a concern of the issuer, and less so of the investor if the issuer is financially sound.

Miscellaneous Issues

For all the discussions above of methodologies and their features and flaws, there are a few other salient points that should be reviewed in any guide to Capital Guaranteed products. These are outlined below.

Leverage

Leverage is the act of adding to your holding of risky assets by borrowing money. The hope is of course that the returns achieved from this additional money exceed the costs of borrowing the money, allowing you to keep even more profit than your original assets would have garnered.

The risks of leverage are two-fold. First, there is the risk that the investment strategy will not return enough on your leveraged assets to cover the costs of borrowing, causing you to regret "ramping up" your exposure to the strategy. The second risk is of greater concern. If your leveraged assets are in a strategy that significantly underperforms, you may lack for the resources to repay the leverage loan itself. Effectively the leveraging can cause the loss of all of the original assets.

Leveraging is a popular component of a Capital Guaranteed product, for two reasons. First, most Capital Guaranteed products, when they invest in a risky underlying program, invest in fairly aggressive investment programs targeting very high returns – usually more than enough, if all goes well, to pay the costs of borrowing. But more important is the second reason – if you have a guaranteed return of capital, that guarantee lessens your concern that the original assets may be fully depleted.

Risks aside, leveraged investing (known as "gearing" outside of the United States) is very popular with Capital Guaranteed products. Most individuals are far more willing to take significantly higher risks when the downside is removed.

Profit Lock-ins

A feature of some Capital Guaranteed products that is becoming increasingly popular is the so-called "Profit Lock-in." In this feature, if the risky strategy happens to make a profit of, say, 10%, then the principal guarantee is increased from 100% to 110%. If the profits evaporate later they are still guaranteed to be paid. And if more profits are produced, those too are guaranteed once they occur, regardless of future performance of the risky strategy.

The Profit Lock-in feature differs from the guaranteed return on principal. It also differs from a participation rate in excess of 100%. The main difference is that a Profit Lock-in requires the profits to occur. If they don't occur, nothing more than the principal is guaranteed.

A Profit Lock-in is implemented by a process that is, in a sense, the exact opposite of the Contingent Immunization methodology. Rather than increase the commitment to the risky asset when it has gains (at the expense of reducing the zero coupon bond holdings), the profits are "taken off the table" as they occur, and invested in more zero coupon bonds (thus insuring that they will be paid).

Of course there is no free lunch, and hence there is a price to be paid for the Profit Lock-in feature. The price is that when profits are "taken off the table" and invested in additional zero coupon bonds, no further gains can be reaped from the profits themselves. Additional gains on the original principal are still possible, but the possibility of reaping "gains on gains" (i.e., compounded returns) is removed. Many investors are more than willing to forego the additional compounding, however, in exchange for the guarantee that any profitable "high water mark" is assured to be paid.

Mortality Benefits

A common feature of many Capital Guaranteed products is that you lose the Capital Guarantee if you ask for your money back before the product has reached its conclusion. Many Capital Guaranteed products allow early guaranteed redemption under one unique circumstance – the investor's death. This allows the investor's heirs to receive the full value of what the decedent had invested, minimizing any negative impact on the decedent's estate if the program happens to not have begun earning profitable returns at the time of death.

Mortality benefits are of course only offered in retail products sold directly to individuals, and even then, aren't always present. There is obviously no need to offer such benefits to corporate or institutional holders of Capital Guaranteed products. Most analysts argue that mortality benefits, which are basically just an embedded life insurance policy, are not worth the embedded cost (of lowered returns), and that most investors would be better off simply buying a Capital Guaranteed product without the mortality benefits and then simply buying a life insurance policy separately if such mortality protection is desired. Where possible, we recommend the purchase of Capital Guaranteed products that exclude mortality protections.

Fees

No discussion of Capital Guaranteed products would be complete without a discussion of fees. In order to issue a Capital Guaranteed product, generally speaking more parties have to be involved than in the issuance of simpler, non-guaranteed products. As a result, there may be more fees.

Fees may exist for the investment manager, the insurer, and any other investment managers or advisors being used. The presence of fees in a financial product is not a *de facto* sign that the product is problematic, however. And even the presence of relatively high fees in a moderately complex financial instrument is not, in some cases, unwarranted. Analyzing the fees, both implicit and explicit in any Capital Guaranteed product is the responsibility of any potential investors.

Conclusions

A Capital Guaranteed product is neither a panacea because it eliminates downside risk nor is it an unwise investment because it may cut into expected returns. **The decision to choose a Capital Guaranteed product turns on whether you have a significant concern about downside risk, even over the long-term. If you don't have the time left to earn the money again (common for older investors) or if the amount invested is significant to you, or if you are simply very risk averse, you should consider a Capital Guaranteed product.**

As for the manner in which the Capital Guarantee is provided, generally speaking that should be of only minor concern, at least as far as your protection from loss is concerned. Ultimately your real protection from loss is in the credit-worthiness and reputation of the firm that assures the guarantee, and if you are comfortable with the firm then you should be comfortable with the guarantee.