MBL Advisors
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DUE CARE BULLETIN

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A Review of Indexed Universal Life Considerations

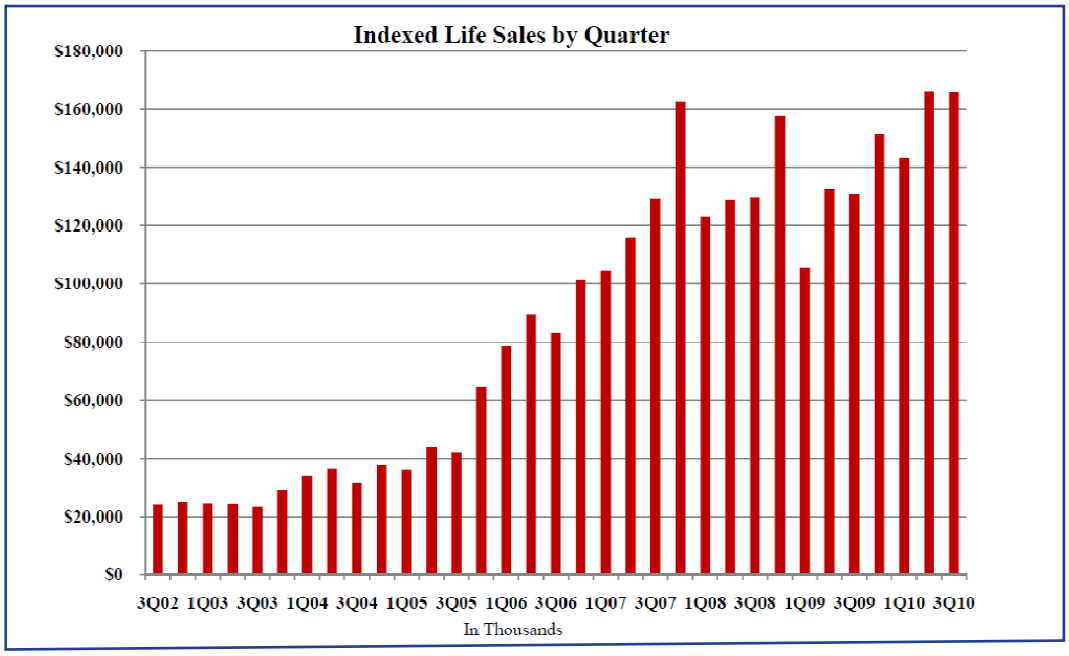
Life insurance due care requires an understanding of the factors that impact policy performance and drive product selection.

M Financial Group continues to lead the industry in life insurance due care and client advocacy, providing valuable insight and analysis that delivers significant value to clients.

Indexed universal life (IUL) is the most recent product variation of permanent life insurance. IUL provides a crediting rate tied to the growth of an equity index typically subject to a cap and floor. With the potential for an enhanced yield in conjunction with a guaranteed minimum crediting rate (i.e., floor), IUL may be considered to be very attractive, particularly in the current low interest rate environment where traditional universal life (UL) crediting rates are in the 4%-5% range.

Background

IUL sales started to significantly increase in 2006, including through 2010 where third quarter sales increased 27% over the same period in 2009. See the IUL sales figures below. Predictions are that future IUL sales will continue to grow at double digit rates as many believe that the low interest rate environment will continue.



Source: AnnuitySpecs.com

As demand for IUL continues to rise, so does the supply. With six new insurers entering the IUL market in the third quarter of 2010, at least 37 insurers now offer an IUL product. Also of note in the third quarter, Pacific Life became the #1 carrier in terms of new IUL sales, posting a 16% market share.

The increasing IUL market share has also generated more interest and discussion, including a variety of valid considerations. This M Due Care Bulletin will address these considerations by providing balanced perspective on IUL.

First, to establish a sound basis for addressing the different IUL considerations, the following is a review of IUL mechanics and pricing.

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IUL Mechanics

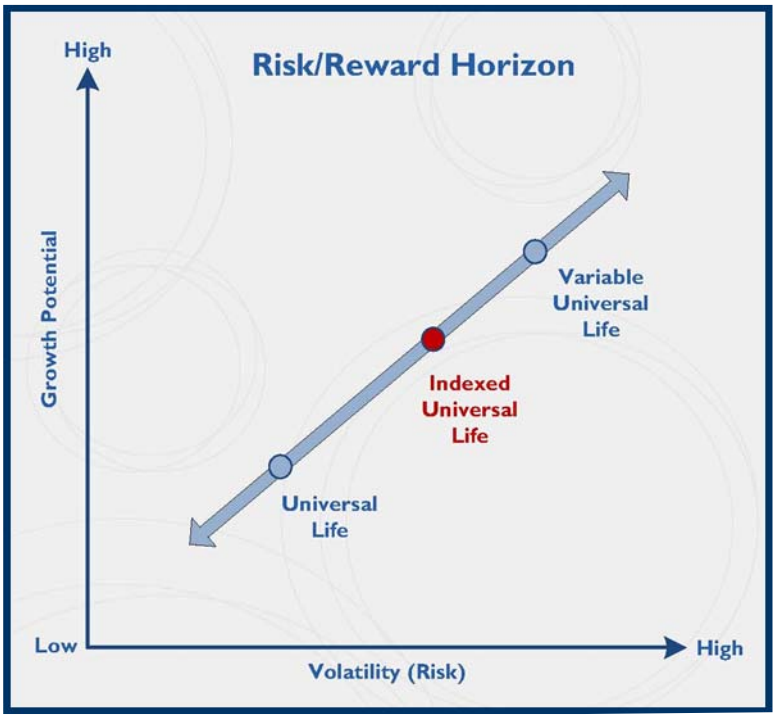
IUL is identical to traditional UL except for the manner in which the interest crediting rate is determined. Both products have flexible premiums and death benefits, are unbundled, and stay in-force as long as the cash value is positive. The term "unbundled" refers to the transparency of product charges and the crediting rate (as opposed to the black-box nature of whole life).

UL has a crediting rate tied to the portfolio earnings of the general account, which is typically a portfolio comprised of investment grade bonds and mortgages.

The IUL crediting rate is tied to the growth rate of a specified equity index, subject to a cap, floor, and participation rate (i.e., the index crediting levers). The most common IUL equity index is the S&P 500. The index growth rate is multiplied by the participation rate and then constrained by the cap and floor. The following example of three index returns will clarify the interaction of these levers. Note that both upside and downside index returns are truncated by the cap and floor. Upon maturity of each segment (typically one year but it can extend up to five years), the index crediting rate calculation is restarted. The effect of this reset is to carry forward gains and avoid carrying forward losses, as the 0 percent floor insulates the account value.

(1)	(2)	(3) [(1) x (2)]	(4)
Index Return (% change in index)	**Participation Rate** (% of index return used in calculation)	**Cap** subject to **Floor**	**Index Crediting Rate** (applied to account value at segment maturity)
22.00%	90%	Subject to 12% cap	12.00%
9.00%	90%	Within cap/floor range	8.10% (90% of 9.00% return)
-19.00%	90%	Subject to 0% floor	0%

The following figure offers an illustration of the variation in the risk and return profiles of UL, IUL, and variable universal life (VUL). IUL is placed between UL and VUL.



Pricing of IUL Crediting Rate

The IUL crediting levers and resulting crediting rate are supported by the combination of investing in the general account (same as traditional UL) and purchasing a package of call options on the relevant equity index. A portion of the net premium (net of policy loads) is allocated to the general account, which earns a portfolio yield based primarily on investment grade bonds and mortgages. The general account yield supports the floor. As an example, if the general account is yielding 5%, the floor is 0%, and the net premium is $100, then $95.24 will be allocated to the general account (100 / 1.05). By the end of the one-year segment term, the $95.24 will grow to $100 (95.24 X 1.05), thereby providing the guaranteed floor.

The remainder of the net premium ($100-$95.24=$4.76) will be used to purchase a package of call options on the respective equity index. The package of call options will support the index return, including the cap. By hedging the index return, the insurer does not lose money if the return is below the floor, but also does not make money if the return is above the cap. All of the equity index return risk is transferred to a third party.

The hedging strategy described above is the prevailing industry approach to pricing an IUL crediting rate. However, other more exotic (and potentially more risky) pricing methods are employed by some insurers. These other pricing strategies may not be sustainable as the insurer retains more of the risk, which can be passed onto the policyholder through crediting lever changes. It is suggested that potential IUL buyers gain an understanding of the pricing and risks supporting the index crediting rate. Of primary concern is whether the pricing strategy is disciplined and sustainable. It should be noted that Pacific Life's IUL products do employ the hedging strategy with full risk transfer as described above. The remainder of this Bulletin assumes that this prevailing hedging strategy is being employed.

Also of note, options provide the power of leverage, which supports a small investment ($4.76 in our example) providing a return on a much larger base ($100 in our example). For our example, if the equity index returns 10%, then the call option provides $10 (10% of 100). But the call option return is actually much greater than 10% due to the leverage of the small investment, with a resulting return of 110%—(10 / 4.76) – 1. Leverage is also applied on the downside, where all negative index returns (such as -10% or -30%) translate into a -100% call option return. This does not adversely impact the policy since the general account investment provides for the index crediting floor.

With an understanding of the basics of IUL crediting rate mechanics and pricing, we will transition to considerations involving IUL policies.

IUL Considerations

The following are common considerations when purchasing an IUL policy:

1. Index crediting levers may not be guaranteed.
2. Index returns do not include dividends.
3. Underlying IUL insurance charges may be higher than traditional UL.
4. Required rate of return on index call option package – aggressive or sustainable?
5. Comparing historical IUL crediting rates to a traditional UL current crediting rate offered today may not be appropriate.
6. What is an appropriate IUL crediting rate assumption?

Index Crediting Levers May Not be Guaranteed - It is true that the current cap and participation rates may not be guaranteed and therefore may be changed by the insurer at the end of each segment term. However, both are also subject to a guaranteed minimum. As an example, the current cap may be 12% with a guaranteed minimum of 3%, and the current participation rate may be 110% with a guaranteed minimum of 100%. Most IUL products with current cap rates that are not guaranteed provide a current participation rate of 100% that is guaranteed. If an IUL

product does not contain a cap, then the current participation rate is typically not guaranteed.

The current floor is typically guaranteed. As an example, the floor is 0% on a current and guaranteed basis. Both current and guaranteed index levers should be noted and considered when reviewing and comparing IUL products.

However, the non-guaranteed nature of IUL crediting levers should be put in perspective. Traditional UL current crediting rates and whole life (WL) dividend interest rates are also not guaranteed and subject to a guaranteed minimum. As an example, traditional UL current crediting rates today typically range from 4%-5% with a guaranteed minimum crediting rate in the range of 2%-3%. Some current UL crediting rates may be guaranteed for one year but otherwise current rates may be changed by the insurer at any time. UL crediting rates and WL dividend rates are supported by a portfolio of bonds and mortgages; therefore, as interest rates have declined over the past 25+ years so have UL and WL rates. This same dynamic will also impact IUL crediting levers where a decrease in interest rates may reduce the cap or participation rate as more funds are needed to support the floor. This leaves less funds to purchase the index call options (and vice versa if interest rates increase).

The other dynamic with the pricing of IUL crediting levers is the cost of call options. If the cost increases then the levers may need to be reduced (and vice versa if the call option cost decreases). The cost of index call options will rise with increased equity market volatility (and vice versa).

In summary, IUL crediting levers may indeed be non-guaranteed components. However, they are subject to guaranteed minimums and are based on disciplined pricing, which is similar to a traditional UL crediting rate and a WL dividend interest rate.

Note that because of disciplined pricing, if the index crediting levers look too good to be true, then they probably are. Caution should be taken with index crediting levers that are substantially more favorable than the rest of the IUL market. Those levers may not be sustainable and are therefore more likely to be reduced in the future. Also of note, some insurers may offer very favorable index crediting levers by increasing the insurance charges, which may result in poor product performance relative to other products.

Index Returns Do Not Include Dividends - It is true that IUL index returns typically do not include dividends. This is significant as dividends have historically provided an additional 1% to 4% annual return to the S&P 500 index. The main reason for excluding dividends is that most publicly available and recognized index data is reported without dividends; therefore, the IUL index return is aligned with public data. It would be possible for insurers to price IUL index returns with dividends (a Total Return index), but the cost of the call option package would increase. Because there is disciplined pricing, the increased cost of the call option would then need to be offset with reduced index crediting levers (such as a lower cap) in order for the insurer to maintain its profit target.

It is important to consider IUL crediting rate expectations with the understanding that dividends are excluded. Any historical data used to develop those expectations should also exclude dividends.

Underlying IUL Insurance Charges May Be Higher Than Traditional UL - From a theoretical pricing standpoint there is no reason for IUL insurance charges to be higher than UL insurance charges. However, the reality is that many IUL products do indeed have higher insurance charges. Because the underlying pricing factors of mortality, expenses, and investment yields are very similar (if not exactly the same) between the two products, the insurance charges should also be very similar. But prospective buyers appear to focus more on the index crediting levers, which leads insurers to price with more favorable index levers (for marketing purposes) but offset with higher insurance charges. Prospective buyers should review and compare both the crediting rates and insurance charges for various IUL offerings (as seen in the illustrated values).

Ultimately, the most important factor is overall product performance. A comparison of IUL versus UL is provided later in this Bulletin.

Required Rate of Return on Index Call Option Package – Aggressive or Sustainable? - Articles have criticized IUL by stating that aggressive index call option returns are required for the IUL crediting rate to exceed a UL crediting rate. One example stated that a call option return of approximately 60% is needed to support an 8% IUL crediting rate—approximately 300 basis points (bps) higher than UL crediting rates offered today. The numbers behind this example are indeed basically correct, and therefore the required returns may appear to be aggressive and unsustainable. However, remember from earlier in this Bulletin that call options inherently provide leveraged returns. Let's look at the numbers behind the following example:

- A conservative portfolio yield assumption of 5%
- As seen in the earlier pricing section, $4.76 will be available to purchase a package of S&P 500 call options based on a $100 net premium and a 12% cap
- An S&P 500 equity index return of 8% yields $8 (8% of 100)
- This translates into a 68% S&P 500 call option return (8 / 4.76 – 1 = 68%)

While these numbers are approximate, they do provide a good general understanding of IUL pricing and returns. For this example, an 8% equity index return results in a leveraged return of 68% for the equity call option. S&P 500 call options exist today that support this type of pricing. In summary, while a 60% call option return sounds aggressive, in reality that return is sustainable based on an 8% S&P 500 index return assumption in conjunction with call option pricing offered today and the inherent leverage provided by a call option.

As an example of the sustainability of this index pricing, Pacific Life's IUL product (Pacific Indexed Accumulator) has maintained a 12% cap, 0% floor, and 100% participation rate since product inception (2005). This is particularly impressive given the reduction in interest rates, portfolio yields, and UL crediting rates over this time period. Also of note, most IUL products offered today provide a cap in the 11%-12% range and a floor in the 0%-1% range. But given the sustained low interest rate environment, there appears to be downward pressure on index cap rates, just as there is downward pressure on UL crediting rates.

Comparing Historical IUL Crediting Rates to a Traditional UL Current Crediting Rate Offered Today May Not be Appropriate - While it may be common practice, comparing historical IUL crediting rates to UL crediting rates offered today is not an "apples-to-apples" comparison. This comparison is typically made to show that historical IUL crediting rates provide an additional 200-300 bps, relative to today's UL crediting rates. However, this is misleading as historical UL crediting rates were higher than today's rates.

A more appropriate comparison would include historical rates for both IUL and UL, as both rates have changed over time. The primary complication in obtaining historical IUL crediting rates is that most IUL products have only been in existence for five years or less. Therefore, there is a limited IUL crediting rate history.

A common substitute is the calculation of hypothetical historical IUL crediting rates. The calculation would be comprised of the actual historical returns of the index (such as the S&P 500 without dividends) and the applicable cap, floor, and participation rates. Typically the current index crediting levers would be applied, but the original index levers would be recommended if they have changed over time as they would more appropriately pertain to the earlier pricing environment. Historical hypothetical IUL crediting rates should not be considered as the actual historical IUL crediting rates. The historical crediting levers would most likely have been different from today's crediting levers due to historical interest rates and option prices that have changed over time. But applying today's index crediting levers is most likely conservative as historical interest rates and portfolio yields were much higher than today's rates, which should support more favorable historical index crediting levers.

The following chart provides an example of historical cumulative crediting rates as of October 2010 for one sample UL product and one sample IUL product. The hypothetical IUL returns assume the current index crediting levers of a sample IUL product, which includes the S&P 500 index (without dividends), 100% participation rate, 12% cap, and 0% floor. Please note that the sample UL product provided a 12.25% crediting rate in 1984 and credits 4.45% as of October 2010. For a 26-year historical time period, which corresponds to the time period the sample UL product has been in-force, the cumulative annual crediting rate for the sample UL product is 7.2%, compared to a

hypothetical 8.2% for the IUL product, providing a hypothetical addition of 100 bps to the crediting return for the IUL product.

If we look at the previous twenty and ten years, the hypothetical enhanced yield for the IUL product as compared to the UL product is 180 bps and 150 bps respectively. These sample hypothetical enhanced IUL yields are most likely conservative as the historical IUL crediting levers should have been more favorable due to the higher historical fixed income yields.

Historical Cumulative Crediting Rates as of October 2010

Historical Time Period	UL Crediting[1]	Hypothetical IUL Crediting[2]	Hypothetical Enhanced IUL Yield
26 Years (1984-2010)	7.2%	8.2%	1.0%
20 Years (1990-2010)	6.4%	8.2%	1.8%
10 Years (2000-2010)	5.3%	6.8%	1.5%

[1] *Based on actual historical crediting rates of a sample UL product*
[2] *Based on current IUL crediting levers of a sample IUL product (S&P 500 without dividends, 100% participation rate, 12% cap, 0% floor)*

Recall that in addition to the crediting rate, insurance charges also drive product performance. Therefore it is not appropriate to simply consider expected crediting rates when comparing IUL to UL. A suggested comparison method would be to illustrate the UL product based on current assumptions and illustrate the IUL product based on the expected enhanced IUL yield. As an example, if the potential buyer expects a 100 bps enhanced yield for IUL (based on historical results), then illustrate the IUL product with a crediting rate assumption equal to the sum of the UL current crediting rate plus 100 bps. Then compare the illustrated values of both products. The example below solves for the ten annual premiums to keep the policy in-force to age 120.

At identical crediting rates, the IUL product requires a premium that is almost 9% greater than the UL premium (i.e., the IUL product has higher insurance charges). But if IUL experiences an enhanced yield of as little as 50 bps, the resulting premium is almost 2% less than the UL premium. With a 100 bps enhanced yield, the required IUL premium is 11% lower than the UL premium. And the IUL premium is 19% lower than the UL premium with a 150 bps enhanced crediting rate. These results are for two specific products offered as of the date of this Bulletin—results will vary product by product.

UL Versus IUL Example:

10-Pay Premium Solve Targeting $1 CV Age 120
Male, Age 55, Best Nonsmoker Underwriting Class, $1 Million Level Death Benefit

Product	Crediting Rate	Premium Solve	% Difference
UL	5.15%	$24,037	n/a
IUL	5.15%	$26,179	8.9%
IUL	5.65%	$23,592	(1.9%)
IUL	6.15%	$21,361	(11.1%)
IUL	6.65%	$19,433	(19.2%)

What is an Appropriate IUL Crediting Rate Assumption? - Illustration systems provide a default IUL crediting rate, which may or may not be appropriate for a crediting rate assumption. The default IUL crediting rates can vary significantly from product to product and should not be considered as similar to a UL current crediting rate. The UL current crediting rate is based on the underlying general account portfolio yield comprised primarily of investment grade bonds and mortgages. The portfolio yield is relatively stable and is primarily impacted by changes in new money rates as the portfolio assets mature and new assets are purchased. IUL does not support a current crediting rate as the historical and likely future IUL crediting rates will be quite volatile due to the link to an equity index. Therefore IUL requires the potential buyer to determine an appropriate crediting rate assumption when running illustrations.

There certainly is no definitive answer for an appropriate IUL crediting rate assumption. It may be suggested that the assumption be based on a long-term return expectation but decreased for conservatism. While historical returns are no guarantee of future performance, they can provide a basis for developing an expected future return assumption. Many IUL illustration systems offer hypothetical historical crediting rates based on the IUL product's current index crediting levers. Some insurers also offer a historical rate calculator, which provides hypothetical historical IUL crediting rates based on user defined crediting rate levers. This allows for comparisons between different index strategies.

For the IUL example (S&P 500 without dividends, 100% participation rate, 12% cap, 0% floor), the hypothetical 20-year historical cumulative annual crediting rate is 8.2% (October 1990 to October 2010). Some rate calculators are more thorough, providing a longer historical time period and a rolling start date by month. Confidence intervals and an average return may also be provided. See example below.

Example Hypothetical Historical Index Crediting Rate:

(S&P 500 without dividends, 100% Participation Rate, 12% Cap, 0% Floor)

40-Year Hypothetical Average Crediting Rate[1]	7.55%
90% Confidence Factor[2]	6.64%
50% Confidence Factor	7.56%
10% Confidence Factor	8.38%

[1] *Average of annual returns from 240 individual annual segments, each created monthly from 1/15/1970 through 12/15/1998 and held and reinvested in each respective indexed account for 20 years with the last segment maturing on 12/15/2009*

[2] *90% of the 240 segments over 20 years would produce at least the hypothetical annual crediting rate of 6.64%*

Based on these hypothetical historical crediting rates for an S&P 500 index strategy that has a 100% participation rate, 12% cap, and a 0% floor, an IUL crediting rate assumption in the range of 6%-7.5% may be justified. The more conservative IUL buyer may be comfortable with an IUL crediting rate assumption of 6%.

Another consideration for determining an appropriate IUL crediting rate is the current interest rate environment and expectations for the direction of future interest rates. As reviewed in the pricing section of this Bulletin, general account portfolio yields will impact index crediting levers (typically the cap rate). Portfolio yields are currently experiencing downward pressure; therefore, current index cap rates should also be exposed to downward forces. But over the long term there may be expectations for increasing interest rates as today's rates are at historical lows. Increasing interest rates would provide upward pressure for index cap rates.

To put the possibility of a changing cap rate into perspective, below are historical hypothetical index crediting rate results based on varying cap rates. The hypothetical historical IUL crediting rates change by approximately 50 bps

per 1% change in the cap rate. For the conservative buyer, funding a policy with a 6% IUL crediting rate assumption may be appropriate. A 6% crediting rate is higher than most current UL crediting rates and would appear to provide a cushion even if the cap rate is reduced to 10% based on hypothetical historical results.

20-Year Historical Hypothetical Cumulative Index Crediting Rates:
October 1990 – October 2010
S&P 500 Index (without Dividends), 0% Floor, 100% Participation Rate

14% Cap	13% Cap	12% Cap	11% Cap	10% Cap
9.1%	8.6%	8.2%	7.7%	7.1%

As with UL and VUL, IUL requires active in-force management. Illustrated values are not guaranteed and assumptions and performance will change over time. This is particularly true for an IUL product where crediting rates will vary significantly. Policy reviews should be conducted to ensure that the policy remains on target. In-force illustrations are critical in determining a policy's status relative to the financial objective. Additional premium funding or a face amount reduction may be considered when actual policy performance falls behind schedule. Reducing premium funding or taking distributions may be considered when actual policy performance is ahead of schedule. A policy replacement, under certain circumstances, may also be an option.

Summary

IUL offers the potential for an enhanced crediting rate that is tied to an equity index (typically without dividends) and guarantees a minimum return. As with UL crediting rates, an IUL crediting rate is not guaranteed and will vary over time. However, IUL pricing is disciplined where the general account portfolio yield and call option pricing will determine the current crediting levers (participation rate, floor, and cap). Call options allow the insurer to transfer the equity index risk to a third party and provide leveraged returns. In many instances IUL insurance charges will be higher than UL insurance charges, and therefore IUL will require an enhanced crediting rate. Based on hypothetical historical results, IUL has provided an enhanced yield of 100 to 150 bps as compared to UL crediting rates.

A critical assumption when illustrating IUL is the crediting rate. Hypothetical historical crediting rates may be used as a basis for setting a crediting rate assumption (even though they do not provide a guarantee for future returns). Hypothetical rates calculated with current IUL crediting levers may be considered conservative as historical levers would likely have been more favorable due to higher historical general account portfolio yields. It may be suggested that a margin be deducted (such as 100 bps, at a minimum) or a 90% confidence factor be considered in order to provide a policy performance cushion.

Many valid considerations have been raised regarding IUL and they should not be ignored. IUL product education will provide the basis for a balanced review. IUL considerations should be reviewed in the context of the risk/return trade-offs and relative to the considerations of other life insurance products such as WL, UL, and VUL.

With an educated review, and a thorough assessment of objectives, it may be determined that IUL is an appropriate product choice for the life insurance buyer.

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