



# CASE DESIGN INSIGHTS

## M Carrier Index Account Crediting Rate Tools

*M Financial Group's Case*

*Design Insights illustrate*

*advanced case design*

*concepts, explain design*

*strategies, and showcase*

*M Carrier illustration*

*features to assist*

*M Member Firms.*

Indexed universal life (IUL) products and index accounts within variable universal life (VUL) products may be an attractive solution for clients. IUL offers the potential for a higher crediting rate than a traditional universal life (UL) policy with partial participation in the equities markets (e.g., S&P 500) in conjunction with protection via a guaranteed minimum crediting rate (floor). IUL is considered to be in the middle of the risk/return spectrum relative to UL (most conservative) and VUL (most aggressive).

The following process is recommended for determining an appropriate illustrated crediting rate assumption for an index account:

### **Research index account mechanics:**

- Index – S&P 500 without dividends, S&P 500 with dividends, international, etc.
- Growth rate calculation – point-to-point, point-to-monthly average, monthly cap, etc.
- Index Term – 1 year, 2 years, 5 years, etc.
- Participation rate, floor, cap, etc.

**Review hypothetical historical crediting rates.** While the past is not a predictor of the future, when evaluating index accounts there is value in applying the current index account mechanics (e.g., participation rate, cap, floor, etc.) to the historical returns of the underlying index and calculating the hypothetical historical crediting rates (i.e., quantify the potential performance differential of different index accounts). For example, assuming all factors are equal, higher cap rates will provide higher index account crediting rates, which can be quantified with hypothetical historical crediting rate calculations. The equity market has experienced up and down cycles and therefore it is recommended that multiple historical time periods be reviewed as results may differ by time period.

**Choose a crediting rate assumption based on the appropriate hypothetical historical crediting rate less 100 – 200 basis points.** For example, if the hypothetical historical crediting rate is 7.5%, then consider a crediting rate assumption of 5.5% to 6.5% (7.5% less 1.0% or 7.5% less 2.0%). This will provide some conservatism and performance cushion for volatility (actual crediting rates are not smooth and vary by index segment and timing) and in case future results are not as favorable as historical results.

**Stress test the crediting rate assumption.** For example, run downside scenarios with the crediting rate assumption reduced by 100 basis points increments all the way to the guaranteed minimum crediting rate. This will determine how the policy performs under adverse conditions and may lead to a decision for more conservative funding. It is also recommended that downside crediting rate scenarios be shown to the client so the client understands and is comfortable with the risk involved.

Fortunately, many carriers recognize the uncertainty in the crediting rate assumption for index accounts and have developed tools to streamline this process. This tutorial will walk you through the index account tools available through M Carriers, how to access the tools, and how they operate.

## M Carrier Index Account Tools

### Pacific Life: Hypothetical Historical Indexed Account Return Calculator

Pacific Life's spreadsheet calculator tool can be used to create client-ready output of hypothetical historical index account crediting rates for user specified index accounts.

1. Log into Lifeline (Pacific Life's producer web portal)
2. Under Resource Center>Software & Tools>Calculators, select the IUL Rate Calculator
3. Open the excel file and enter specified assumptions
4. Click "Illustrate Output" to generate report (see below)

<b>Date Range</b>		<b>Input Help</b>	
Beginning Year	1973	The year that the first allocation is made (must be at least 10 years prior to the Ending Year). Beginning Year cannot be less than 1928 for S&P, 1988 for International	
Ending Year	2012		
Number of Years (calculated)	39	The last date that interest is calculated.	
<input type="button" value="Illustrate Output"/>			
<b>Calculation (Select choices from cell drop down options)</b>			
Accumulation Period (# of Years)	1	The number of years over which returns are calculated.	
Frequency	Annual	Choose either Monthly (12 allocations each year [15th of the month]), or Annual (1 allocation per year [December 15])	
Index Account	1 Year pt. to pt.	This is how we measure the index returns. Both assume the S&P 500 Index (excluding dividends): - The 1-Year point to point measures the S&P500 change between the same date 12 months apart - The 5-Year point to average measures the S&P500 change between the same date 60 months apart, but uses the average of the S&P closing values during the 5th year (based on the 15th of month)	
<b>Equity Features</b>			
Floor	0.00%	The minimum annual growth rate.	
Growth Cap	12.00%	leave blank.	
Participation Rate	100.00%	The percentage of the index return (subject to the cap/floor) included in the calculation	

## Historical Hypothetical Calculator Results

### Indexed Segment Hypothetical Annual Growth Rate

The table displays the annualized growth rate for the Segment over the entire accumulation period that you chose. If you chose a monthly frequency, then the rate shown will be the average of the 12 Segments for that calendar year.

Segment Beginning Year	Segment Ending Year	Indexed Segment Hypothetical Annual Growth Rate for Ending Year	S&P 500 Index Without Dividends
2008	2009	12.00%	28.27%
2009	2010	11.44%	11.44%
2010	2011	0.00%	-2.40%
2011	2012	12.00%	16.65%
		<b>Avg.: 7.52%</b>	<b>Avg.: 8.68%</b>

### Range of Indexed Segment Hypothetical Annual Growth Rates

The percentage of the Segments that would have had the corresponding Segment Growth Rate or better during the Historical Data Range given the assumptions.

90%	75%	50%	25%	10%
0.00%	0.00%	12.00%	12.00%	12.00%

## M Carrier Index Account Tools (Continued)

### John Hancock: Rate Translator

John Hancock’s Rate Translator provides a suggested IUL crediting rate assumption that is aligned with your client’s expectations for long-term equity returns. John Hancock Rate Translator can be used to create client ready reports to help explain how different index strategies and underlying assumptions may affect the potential for interest credits in an IUL policy.

1. Open John Hancock’s Illustrator
2. Choose an IUL product to illustrate. Under the “Allocation” section of “Policy Design,” there will be a “Rate Translator” box
3. Click the Rate Translator box and choose your indexed account—capped, high par, or uncapped
4. Adjust the assumptions requested by the Rate Translator and click “Apply”
5. The translated illustrative rate will appear to the right (see below)

The screenshot shows the Rate Translator interface with the following settings:

- Tab:** Capped
- Equity Assumption:** Hypothetical Long-Term Equity Return: 8%
- Indexed UL Crediting Strategy:** Based on S&P 500.1-Year Point-to-Point Method
- Participation Rate:** 100%
- Annual Floor:** 0%
- Cap:** 12%
- Translated Assumption:** 6.4%
- 25-Year Look-Back Rate:** 7.27%

Example is for an S&P 500, one-year point-to-point capped strategy with a 0% Floor

Cap Level	Expected Equity Performance				
	6%	8%	10%	12%	13%
9%	4.7%	5.1%	5.4%	5.8%	6.0%
10%	5.1%	5.5%	5.9%	6.3%	6.5%
11%	5.5%	5.9%	6.3%	6.8%	7.0%
12%	5.8%	6.3%	6.7%	7.2%	7.4%
13%	6.1%	6.6%	7.1%	7.6%	7.9%

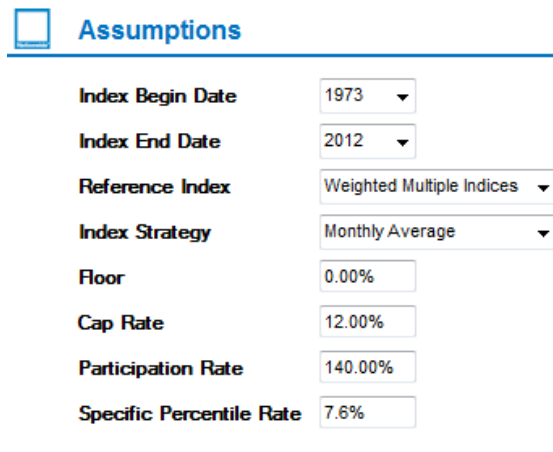
An 8% S&P 500 return assumption (with dividends) produces a 6.3% index crediting rate assumption with a 12% cap.

## M Carrier Index Account Tools (Continued)

### Nationwide: IUL Calculator

The Nationwide IUL Calculator can be used to help you better understand how varying indexed account strategies and assumptions affect the actual credited interest rate at each segment maturity.

1. Open Nationwide Life Illustrator
2. Select “Calculators” then “IUL Calculator” then “New Plan”
3. Enter the required assumptions
4. Click “Calculate Illustration”—The software will calculate historical and hypothetical rates based on assumptions entered (see below)



The screenshot shows the 'Assumptions' section of the Nationwide IUL Calculator. It includes the following fields and values:

Field	Value
Index Begin Date	1973
Index End Date	2012
Reference Index	Weighted Multiple Indices
Index Strategy	Monthly Average
Floor	0.00%
Cap Rate	12.00%
Participation Rate	140.00%
Specific Percentile Rate	7.6%

**Example:** Looking at the chart below (based on actual index performance and select input assumptions), over each 10-year rolling period, a rate of 5.64% or greater was achieved 90% of the time. The Average Index Crediting Rate was 7.72%. The specified rate of 7.60% was achieved 55% of the time.

Rolling Period	100th Percentile	90th Percentile	80th Percentile	70th Percentile	60th Percentile	50th Percentile	Average Index Crediting Rate	7.60% Specified Rate
5-year	3.70%	4.86%	5.25%	5.96%	6.71%	7.20%	7.48%	45th Percentile
10-year	4.86%	5.64%	6.23%	6.39%	7.33%	7.88%	7.72%	55th Percentile
20-year	7.20%	7.30%	7.55%	7.79%	7.89%	7.94%	8.12%	78th Percentile

### Prudential

Prudential does not have a calculator or tool to assist with choosing an indexed account crediting rate, but rather they have knowledge pieces available. Access the “Understanding Index UL” course and the “eLearning – IAUL” course through Prudential’s producer website by searching for “Index.”

### ING: Hypothetical Historical Index Strategy Calculator

The ING Hypothetical Historical Index Strategy Calculator can be used to create client ready reports to help explain how different index strategies and underlying assumptions may affect the potential for interest credits in an IUL policy.

1. Open ING Presents 2
2. Select “Tools”
3. Open the “Hypothetical Index Strategy Calculator” and enter the required assumptions
4. Click “Presentation” to view the client ready presentation (see below)

## M Carrier Index Account Tools (Continued)

### Strategy Details

What index strategy is the client using?

Single Index with S&P 500®  
 Multi-Index

What is the annual guaranteed minimum interest rate?

Is there a cap on the index change rate?

No  
 Yes  
 Cap

What is the participation rate?

What is the index crediting period and style?

### Presentation Details

When do you want the calculation to begin?  
 Begin  of

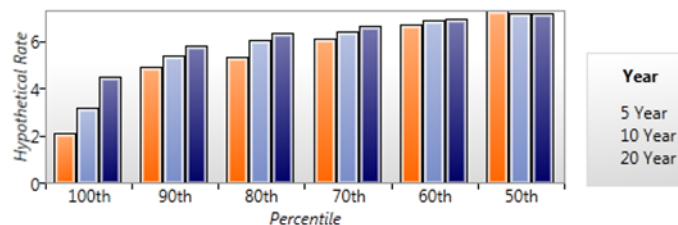
Calculate the percentile for a specific rate?

No  
 Yes  
 Specified Rate

### Hypothetical Percentile Rates for Rolling Periods

Hypothetical percentiles for rolling periods starting since June 1950 and ending by June 2013.

	Percentile							Percentile for 6.50%
	100th	90th	80th	70th	60th	50th	Avg	
5 Yr	2.11%	4.93%	5.35%	6.12%	6.73%	7.28%	7.14%	64.31
10 Yr	3.17%	5.41%	6.03%	6.44%	6.88%	7.20%	7.13%	68.58
20 Yr	4.54%	5.84%	6.37%	6.67%	6.92%	7.18%	7.15%	75.48

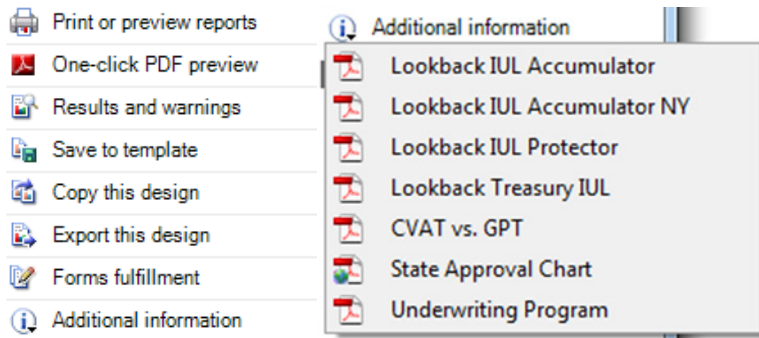


This tool can also be accessed via ING's producer website.

## Lincoln Financial Group

Lincoln Financial Group does not have a calculator or tool to assist with choosing an illustrative IUL crediting rate, but they do provide hypothetical historical data through the DesignIt illustration software.

1. Open DesignIt
2. Select a product
3. Select "Additional information" and choose the applicable look-back PDF (see below)



	S&P 500®*	1-Year Point-to-Point	1-Year Monthly Cap	1-Year Monthly Average
<b>Hypothetical annually compounded average of the 1-year rates:</b>				
30-Year	8.18%	7.82%**	7.77%	7.59%
25-Year	7.35%	7.88%	7.63%	6.80%
20-Year	6.16%	7.43%	7.24%	6.08%
15-Year	2.67%	7.02%	5.70%	4.77%
10-Year	4.62%	7.91%	7.20%	4.41%
5-Year	-0.22%	7.37%	6.89%	5.33%
1-Year	17.65%	12.00%	12.68%	12.78%

\*S&P 500 is a trademark of Standard & Poor's Financial Services, LLC

## Summary

There are a number of considerations when choosing an illustrated rate of return for an index account. The tools outlined above provide an excellent starting point in helping to choose an appropriate index account crediting rate assumption.

## For More Information

To learn more, please contact:

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