

Portfolio Optimization with Indexed Universal Life

**Advisor Name:** 

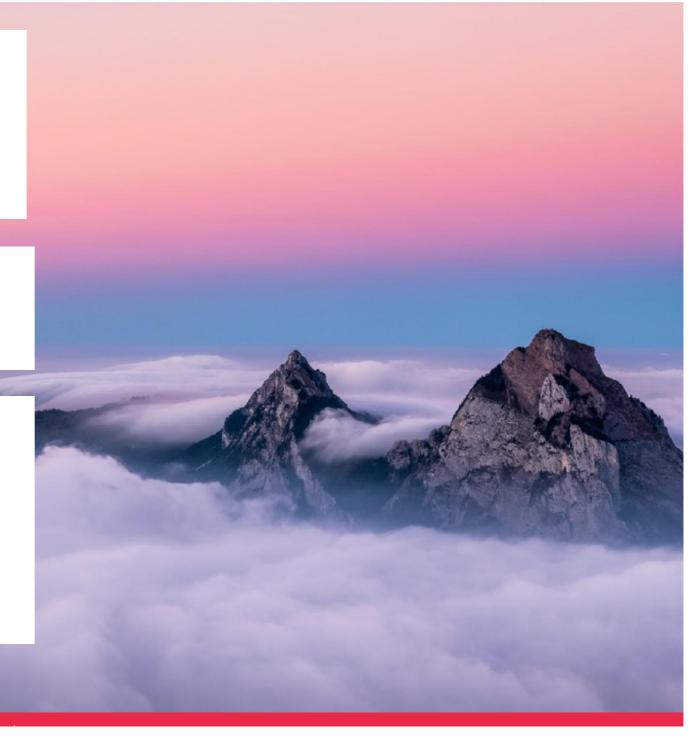
**Advisor Resource** 

Client Info: vijay test

Report Date : 10/15/2022

Illustration:

illustration\_22\_09\_2022



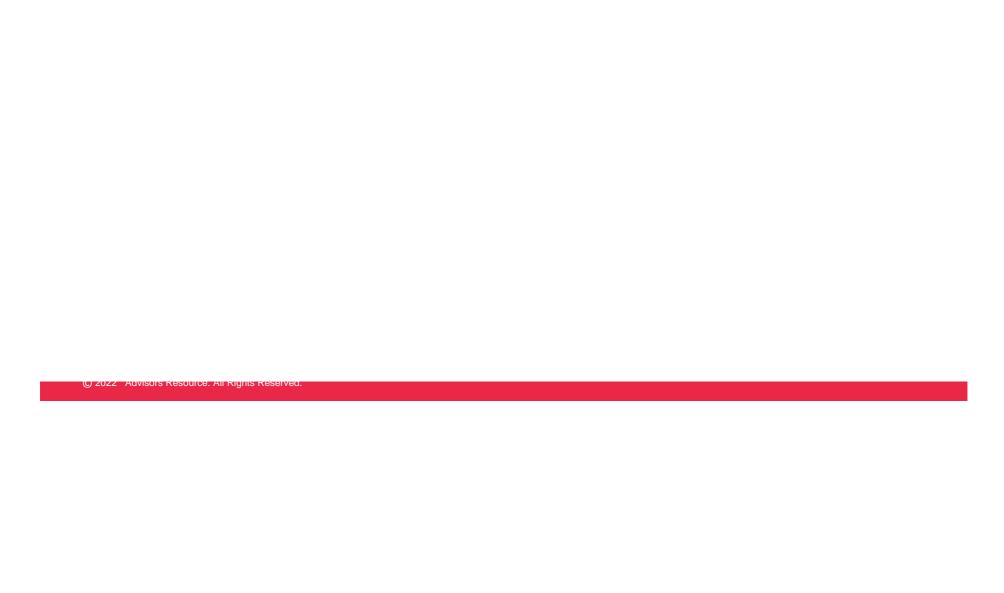


### Life Insurance Retirement Plan Analysis

- 1. The objective of this report is to give a real-life picture as to the performance of the policy, incorporating the actual policy charges and varying rates of return. The report shows the probability of "Lapse Prior to Death." based on the desired amount of income out of the policy.
- A Monte Carlo simulation uses a history of returns of the given Index options and runs 5000 different return scenarios. By randomly mixing up the returns it helps to minimize sequence of return risk.
- 3. The results of the Monte Carlo show us the Worst Case, Median, and Best case scenarios. The focus when comparing outcomes should be on the Median Values, which represents the "middle of the road." The outcomes also compare the client taking the same dollar amount that goes into the IUL and investing similar in the S&P 500 Index Fund.

4.

After we complete the Monte Carlo simulation consisting of 5000 different iterations we rank them from Worst (5th percentile), Midpoint 50th percentile and Best case, 95th percentile.



S&P 500 N COMPERC

## **Asset Class Returns**

	S&P 500 3LC	OMBERG	PIMCO	
2002	-22.10%	1.22%	0.00%	
2003	28.68%	11.73%	0.00%	
2004	10.88%	5.02%	0.00%	
2005	4.91%	0.83%	-2.18%	
2006	15.79%	6.12%	5.17%	
2007	5.49%	2.86%	2.95%	
2008	-37.00%	0.37%	5.86%	
2009	26.46%	5.81%	4.21%	
2010	15.06%	8.46%	11.32%	
2011	2.11%	5.19%	3.84%	
2012	16.00%	6.92%	6.81%	
2013	32.39%	8.01%	7.75%	
2014	13.69%	6.88%	1.53%	
2015	1.38%	-1.33%	-2.33%	
2016	11.96%	4.93%	5.75%	
2017	21.83%	14.73%	14.46%	
2018	-4.38%	-0.66%	-2.10%	
2019	31.49%	12.83%	10.35%	
2020	18.40%	4.45%	4.07%	
2021	28.71%	5.00%	10.29%	
Mean	11.09%	5.47%	4.39%	
Std.Deviation	17.57%	4.34%	4.81%	

#### **Net of All Adjustments**

	Mean	Standard Deviation
Portfolio	-231.54%	96.75%
IUL*	7.09%	0.00%

- \* For the Portfolio the Mean return is Net of a 10% T and 1% Advisor Fee
- \* For the IUL the Mean return is Net of adding Participation Rate and any product bonuses the guaranteed.

 Par Rate
 120.00%

 Bonus Rate
 40.00%

 Select Fee
 1.00%

# Monte Carlo Analysis

				IUL Cash Value	es	I	UL Death Bene	efit		Portfolio		Cumu
Voor	BOY	Net Premiums	5th	50th	95th	5th	50th	95th	5th	50th	95th	BOY
Year	Age	(Distributions)	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Age
1	40	\$ 595134	\$ 77923	\$ 83268	\$ 93947	\$ 2960494	\$ 2965839	\$ 2976518	\$ 76900	\$ 111320	\$ 128150	0
2	41	\$ 595134	\$ 159484	\$ 175700	\$ 182768	\$ 3042055	\$ 3058271	\$ 3065339	\$ 143890	\$ 221625	\$ 273475	1
3	42	\$ 595134	\$ 241970	\$ 271083	\$ 292531	\$ 3124541	\$ 3153654	\$ 3175102	\$ 199415	\$ 353957	\$ 415751	2
4	43	\$ 595134	\$ 335368	\$ 369448	\$ 400072	\$ 3217939	\$ 3252019	\$ 3282643	\$ 274876	\$ 475740	\$ 585157	3
5	44	\$ 595134	\$ 437804	\$ 475828	\$ 519203	\$ 3320375	\$ 3358399	\$ 3401774	\$ 413149	\$ 591126	\$ 787864	4
6	45	\$ 595134	\$ 544785	\$ 591589	\$ 650190	\$ 3427356	\$ 3474160	\$ 3532761	\$ 523811	\$ 745461	\$ 988366	5
7	46	\$ 595134	\$ 661605	\$ 713582	\$ 789375	\$ 3544176	\$ 3596153	\$ 3671946	\$ 645278	\$ 878809	\$ 1132552	6
8	47	\$ 595134	\$ 666402	\$ 755561	\$ 834214	\$ 2882571	\$ 2882571	\$ 2882571	\$ 661055	\$ 912063	\$ 1276291	7
9	48	\$ 595134	\$ 687849	\$ 790786	\$ 879044	\$ 2882571	\$ 2882571	\$ 2882571	\$ 559760	\$ 948038	\$ 1423192	8
10	49	\$ 595134	\$ 722216	\$ 826536	\$ 940724	\$ 2882571	\$ 2882571	\$ 2882571	\$ 587806	\$ 991832	\$ 1513885	9
11	50	\$ -	\$ 754622	\$ 854122	\$ 997485	\$ 2882571	\$ 2882571	\$ 2882571	\$ 721930	\$ 1030953	\$ 1749430	10
12	51	\$ -	\$ 796127	\$ 892985	\$ 1039778	\$ 2882571	\$ 2882571	\$ 2882571	\$ 639216	\$ 1161011	\$ 1978268	11
13	52	\$ -	\$ 859103	\$ 960492	\$ 1105176	\$ 2882571	\$ 2882571	\$ 2882571	\$ 661213	\$ 1206301	\$ 1828339	12
14	53	\$ -	\$ 908305	\$ 1025647	\$ 1166501	\$ 2882571	\$ 2882571	\$ 2882571	\$ 707186	\$ 1338928	\$ 1862930	13
15	54	\$ (5951340)	\$ 966131	\$ 1054383	\$ 1218357	\$ 2882571	\$ 2882571	\$ 2882571	\$ 777437	\$ 1413020	\$ 1876305	14
16	55	\$ -	\$ 1041331	\$ 1132126	\$ 1283247	\$ 2882571	\$ 2882571	\$ 2882571	\$ 876106	\$ 1415379	\$ 2168239	15
17	56	\$ -	\$ 1107088	\$ 1206288	\$ 1348797	\$ 2882571	\$ 2882571	\$ 2882571	\$ 976946	\$ 1442157	\$ 1985649	16
18	57	\$ -	\$ 1179816	\$ 1287731	\$ 1427031	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1084409	\$ 1459482	\$ 2107088	17
19	58	\$ -	\$ 1250088	\$ 1355190	\$ 1490451	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1200891	\$ 1509418	\$ 2190199	18
20	59	\$ -	\$ 1359318	\$ 1456902	\$ 1580827	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1357976	\$ 1595786	\$ 2250391	19
21	60	\$ -	\$ 1370039	\$ 1552711	\$ 1761626	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1192405	\$ 1782497	\$ 2555623	20
22	61	\$ -	\$ 1420546	\$ 1671147	\$ 1860977	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1055716	\$ 1937228	\$ 2834249	21
23	62	\$ -	\$ 1509315	\$ 1759952	\$ 1978111	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1158046	\$ 2032096	\$ 2987074	22
24	63	\$ -	\$ 1592702	\$ 1856991	\$ 2154236	\$ 2882571	\$ 2882571	\$ 2882571	\$ 1297231	\$ 2159123	\$ 3531019	23
25	64	\$ -	\$ 1569449	\$ 1896884	\$ 2216133	\$ 2789728	\$ 2789728	\$ 2789728	\$ 1236197	\$ 2154723	\$ 3626673	24
26	65	\$ -	\$ 1529973	\$ 1931480	\$ 2222522	\$ 2692244	\$ 2692244	\$ 2709109	\$ 1290546	\$ 2114030	\$ 3819723	25
27	66	\$ -	\$ -	\$ 1942742	\$ 2309389	\$ 2589885	\$ 2589885	\$ 2803783	\$ 1230711	\$ 2088957	\$ 4112524	26
28	67	\$ -	\$ -	\$ 1985616	\$ 2436782	\$ 2482408	\$ 2482408	\$ 2947434	\$ 1102242	\$ 2056117	\$ 4409409	27
29	68	\$ -	\$ -	\$ 2041293	\$ 2518753	\$ 2369557	\$ 2502214	\$ 3042762	\$ 950218	\$ 2052480	\$ 4604378	28
30	69	\$ -	\$ -	\$ 2074792	\$ 2591745	\$ 2251064	\$ 2546852	\$ 3150233	\$ 965085	\$ 2098821	\$ 4859338	29

\* 5th Percentile

\* 50th Percentile

\* 95th Percentile

Worst Case Scenario Median Case Scenario Best Case Scenario All trials ranked, this is the bottom 5%, 95% of trials are better than Worst Case Scenario All trials ranked, this is the midpoint value  $\frac{1}{2}$ 

All trials ranked, this is the top 5%, 95% of trials are worse than Best Case Scenario



# Monte Carlo Analysis

				IUL Cash Valu	es		IUL Death Ben	efit		Portfolio		Cum
Year	BOY	Net Premiums	5th	50th	95th	5th	50th	95th	5th	50th	95th	BOY
rear	Age	(Distributions)	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Percentile	Age
31	70	\$ -	\$ -	\$ 2141056	\$ 2688253	\$ 2126646	\$ 2600526	\$ 3271244	\$ 916779	\$ 2183494	\$ 4982878	30
32	71	\$ -	\$ -	\$ 2167402	\$ 2766554	\$ 2061040	\$ 2627259	\$ 3242805	\$ 933565	\$ 2195582	\$ 4830584	31
33	72	\$ -	\$ -	\$ 2227443	\$ 2800518	\$ 2171660	\$ 2638674	\$ 3239836	\$ 1003542	\$ 2201930	\$ 4486326	32
34	73	\$ -	\$ -	\$ 2269036	\$ 2917202	\$ 2175199	\$ 2668752	\$ 3314479	\$ 1017098	\$ 2221513	\$ 4401138	33
35	74	\$ -	\$ -	\$ 2336392	\$ 3048187	\$ 2156555	\$ 2697806	\$ 3394703	\$ 1021703	\$ 2258853	\$ 4987453	34
36	75	\$ -	\$ -	\$ 2449065	\$ 3068254	\$ 2148728	\$ 2724058	\$ 3301153	\$ 1023418	\$ 2247122	\$ 4806212	35
37	76	\$ -	\$ -	\$ 2507009	\$ 3184002	\$ 2317006	\$ 2839942	\$ 3480386	\$ 1014638	\$ 2254670	\$ 5290083	36
38	77	\$ -	\$ -	\$ 2622868	\$ 3323264	\$ 2382918	\$ 2977011	\$ 3614571	\$ 954750	\$ 2330823	\$ 5420112	37
39	78	\$ -	\$ -	\$ 2738684	\$ 3417105	\$ 2486283	\$ 3119996	\$ 3717826	\$ 979002	\$ 2395089	\$ 4652380	38
40	79	\$ -	\$ -	\$ 2840004	\$ 3335365	\$ 2835539	\$ 3200301	\$ 3660626	\$ 1029145	\$ 2429360	\$ 4212382	39
41	80	\$ -	\$ -	\$ 2881833	\$ 3760514	\$ 2784297	\$ 3336358	\$ 4181221	\$ 961745	\$ 2396822	\$ 4504495	40
42	81	\$ -	\$ -	\$ 2904390	\$ 3956155	\$ 2763696	\$ 3560774	\$ 4382549	\$ 916317	\$ 2331768	\$ 4881021	41
43	82	\$ -	\$ -	\$ 2996400	\$ 4176320	\$ 2819656	\$ 3735108	\$ 4600251	\$ 884935	\$ 2394530	\$ 5211985	42
44	83	\$ -	\$ -	\$ 3093898	\$ 4497858	\$ 3020751	\$ 3882788	\$ 5015912	\$ 771663	\$ 2502773	\$ 5718981	43
45	84	\$ -	\$ -	\$ 2983441	\$ 4687309	\$ 3015467	\$ 4143384	\$ 5358242	\$ 722150	\$ 2565240	\$ 5969695	44
46	85	\$ -	\$ -	\$ 3027568	\$ 4842797	\$ 3228150	\$ 4371982	\$ 5525660	\$ 697967	\$ 2653575	\$ 6086211	45
47	86	\$ -	\$ -	\$ -	\$ 5177365	\$ 3417162	\$ 4604316	\$ 5914998	\$ 635443	\$ 2706361	\$ 6540669	46
48	87	\$ -	\$ -	\$ -	\$ 5612361	\$ 3421197	\$ 4874235	\$ 6420088	\$ 555167	\$ 2777699	\$ 6932654	47
49	88	\$ -	\$ -	\$ -	\$ 5811894	\$ 3331701	\$ 5093790	\$ 6785471	\$ 486790	\$ 2775033	\$ 7361019	48
50	89	\$ -	\$ -	\$ -	\$ 5998002	\$ 3714516	\$ 5340649	\$ 7269578	\$ 433797	\$ 2751699	\$ 7307975	49
51	90	\$ -	\$ -	\$ -	\$ 6453246	\$ 4010593	\$ 5761186	\$ 7765891	\$ 455831	\$ 2915927	\$ 8142193	50
52	91	\$ -	\$ -	\$ -	\$ 6655497	\$ 4244342	\$ 6016480	\$ 7990152	\$ 472012	\$ 2949409	\$ 8046433	51
53	92	\$ -	\$ -	\$ -	\$ 6801401	\$ 4739979	\$ 6405205	\$ 8246083	\$ 501027	\$ 3171898	\$ 8138767	52
54	93	\$ -	\$ -	\$ -	\$ 7046658	\$ 5087259	\$ 6777330	\$ 8678293	\$ 539189	\$ 3404097	\$ 8572497	53
55	94	\$ -	\$ -	\$ -	\$ 7419192	\$ 5309950	\$ 7005140	\$ 9357123	\$ 603645	\$ 3555676	\$ 9207850	54
56	95	\$ -	\$ -	\$ -	\$ 7948265	\$ 5512631	\$ 7646893	\$ 9393097	\$ 669374	\$ 3758236	\$ 9373396	55
57	96	\$ -	\$ -	\$ -	\$ 8081910	\$ 6209276	\$ 8152139	\$ 10315674	\$ 741626	\$ 4050175	\$ 9829705	56
58	97	\$ -	\$ -	\$ -	\$ 7897986	\$ 6954271	\$ 8835233	\$ 11081715	\$ 746973	\$ 4256739	\$ 10035078	57
59	98	\$ -	\$ -	\$ -	\$ 8089739	\$ 7583451	\$ 9555008	\$ 11650421	\$ 830189	\$ 4513861	\$ 9640314	58
60	99	\$ -	\$ -	\$ -	\$ -	\$ 8978272	\$ 10182808	\$ 11720220	\$ 820325	\$ 4592967	\$ 9668483	59

All trials ranked, this is the midpoint value

All trials ranked, this is the bottom 5%, 95% of trials are better than Worst Case Scenario

All trials ranked, this is the top 5%, 95% of trials are worse than Best Case Scenario

Worst Case Scenario

Best Case Scenario

Median Case Scenario

\* 5th Percentile

\* 50th Percentile

\* 95th Percentile

## **Comparing Outcomes**

Lapse: Lapse is when account value is "\$0" before a "death" occurs in the trial

Death: The probability of death is calculated randomly each iteration.

Percentage of Trials: Of all the trials, how many had a lapse.

Percentage of Trials that Lapse Prior to Death



- 1. This information is hypothetical and for discussion purposes only. It is not intended to represent any specific return, yield or investment. It is provided for illustrative purposes only and does not constitute a recommendation to invest in any fund or strategy and is not a promise of future performance, an estimate of actual returns or of the volatility any client portfolio may experience. Hypothetical results do not represent actual trading and do not reflect the impact of any fees, ex taxes applicable to an actual investment. Hypothetical and past performance are no guarantee of future results.
- 2. Guarantees are based on the claims-paying ability of the issuing insurance company
- 3. Death benefits generally are not subject to income taxes but may be subject to income taxes in certain cases. Policy owners should consult with legal counsel prior to assigning the ownership rights in life insurance policies. Insurance policy death benefits are includable in the gross estate of the decedent if the decedent owned or was deemed to have owned certain "incidents of ownership" in the policy. Death benefit protection is based on the claims-paying ability of the is insurance company.



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%
0.01%
0.03%
0.06%
0.09%
0.13%
0.17%
0.22%
0.27%
0.33%
0.40%
0.48%
0.57%
0.67%
0.78%
0.91%
1.05%
1.21%
1.39%
1.60%
1.85%
2.12%
2.42%
2.75%
3.12%
3.54%
4.01%
4.54%
5.12%
5.77%
6.48%



#### ılative

%
7.28%
8.19%
9.21%
10.38%
11.70%
13.20%
14.89%
16.78%
18.89%
21.23%
23.84%
26.73%
29.91%
33.40%
37.19%
41.32%
45.75%
50.48%
55.45%
60.57%
65.71%
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75.53%
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87.29%
90.18%
92.59%
94.56%
96.11%



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