

Pitfalls of IRR Pricing

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New Term Product Summary

		Competitive Positioning versus 20 core competitors			
	<u>Return</u>	<u>Min. Rank</u>	<u>Average Rank</u>	<u>Average Prem vs. #1</u>	<u>Ave Prem vs. Ave of Top 5</u>
Old Product:	8.0%	9	5	+12%	+9%
New Product:	15.5%	5	2	+5%	+2%

Sales Jump!

Agents get record bonuses!

Humphrey Sanders gets a promotion and raise!

The CFO appears on the cover of "Forbes" magazine.

Who loses? ... To be answered later.

Where are the Earnings ????!

Roadmap for this Presentation

- Use the Term Insurance Example above (featuring a 3rd party Capital Solution) to Expose Some of the Shortcomings of the IRR measure.
 - > *IRR Profit versus \$\$\$ Profit.*
 - > *Risk*
 - > *GAAP Earnings*
- Create a better pricing report
- Using the knowledge gained above, analyze the IRR's shortcomings in Other Business Scenarios
 - > *Agent Commission Example*
 - > *IOI Example*

What IRR is:

- A beautiful and powerful tool for re-imagining a Business, Business Unit, Product, or Product Line as a bond-like investment.
- A percentage
- A measure of the rate of incidence of Profit
- Technically, the return rate at which a set of Cash flows will present value back to zero.

What IRR is not:

- A measure of profit level.
- Dependable as an all-encompassing indicator of financial well-being

Comparative 8% Investments

	Coupon & Redemption Bond	Fixed Period Annuity	Humphrey Term (Before Capital Solution)
IRR	8.0%	8.0%	8.0%
PV Profits	\$295	\$188	\$159
FY Investment:	1,000	1,000	1,000
1	(1,000)	(1,000)	(1,000)
2	80	160	223
3	80	160	201
4	80	160	181
5	80	160	163
6	80	160	146
7	80	160	132
8	80	160	119
9	80	160	107
10	1,080	160	96

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Capital Soutlion Impact on Cash Flows

	<u>Humphrey Term (Before Capital Solution)</u>	<u>Capital Solution Cash Flows</u>	<u>Humphrey Term (After Capital Solution)</u>
<i>IRR</i>	8.0%		15.5% 94%
<i>PV Profits</i>	\$159		\$13 -92%
<i>FY Investment:</i>	1,000		100 -90%
1	(1,000)	900	(100)
2	223	(73)	150
3	201	(51)	150
4	181	(81)	100
5	163	(113)	50
6	146	(96)	50
7	132	(182)	(50)
8	119	(219)	(100)
9	107	(257)	(150)
10	96	(261)	(165)

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Pushing the Limit

	<u>Before Capital Solution</u>	<u>Capital Solution</u> <i>Cash Flows</i>	<u>Extreme Capital Solution</u>
IRR	8.0%		9900.0% 123679%
PV Profits	\$159		\$1 -99%
FY Investment:	1,000		0 -100%
		999.99	
1	(1,000)		(0.01)
2	223	(222)	1
3	201	(201)	-
4	181	(181)	-
5	163	(163)	-
6	146	(146)	-
7	132	(132)	-
8	119	(119)	-
9	107	(107)	-
10	96	(96)	-

Capital Budget of \$1,000,000 for this Product

	8.0%	15.5%	5.5%	6.3%
IRR:	8.0%	15.5%	5.5%	6.3%
PV Profits:	\$158,969	\$12,812	\$103,521	\$116,333
FY Investment:	\$1,000,000	\$100,000	\$900,000	\$1,000,000
	Sell 1000 Policies Invest \$1,000,000 in 8% Term Business	Invest \$100,000 in Term Business	Invest \$900,000 Difference in 5.5% Bonds	Total Corporate Cash Flows
1	1,000,000	(1,000,000)	(100,000)	(1,000,000)
2		223,257	150,000	199,500
3		200,931	150,000	199,500
4		180,838	100,000	149,500
5		162,754	50,000	99,500
6		146,479	50,000	99,500
7		131,831	(50,000)	(500)
8		118,648	(100,000)	(50,500)
9		106,783	(150,000)	(100,500)
10		96,105	(164,619)	784,881

Risk Exposure Inherent in Thin Cash Flows

	Before Capital Solution	After Capital Solution	Mal-Experience Impact	Before Capital Solution	After Capital Solution
IRR	8.0%	15.5%		7.0%	-26.3%
PV Profits	\$159	\$13		\$118	(\$28)
FY Investment:	1,000	100		1,005	105
1	(1,000)	(100)	(5)	(1,005)	(105)
2	223	150	(5)	218	145
3	201	150	(5)	196	145
4	181	100	(5)	176	95
5	163	50	(5)	158	45
6	146	50	(5)	141	45
7	132	(50)	(5)	127	(55)
8	119	(100)	(5)	114	(105)
9	107	(150)	(5)	102	(155)
10	96	(165)	(5)	91	(170)

Impact of GAAP on Humphrey Term Distributable Earnings

	Statutory		GAAP			
	Before Capital Solution	After Capital Solution	Net GAAP Impacts		Before Capital Solution	After Capital Solution
IRR	8.0%	15.5%				
PV Profits	\$159	\$13			\$301	(\$53)
FY Investment:	1,000	100				
			Before CS	After CS		
1	(1,000)	(100)	1,040	93	40	(7)
2	223	150	(185)	(157)	39	(7)
3	201	150	(164)	(157)	37	(7)
4	181	100	(143)	(107)	38	(7)
5	163	50	(126)	(56)	37	(6)
6	146	50	(113)	(56)	33	(6)
7	132	(50)	(97)	44	35	(6)
8	119	(100)	(82)	94	36	(6)
9	107	(150)	(71)	144	36	(6)
10	96	(165)	(59)	158	37	(6)

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Pricing / Capital Allocation Report For Upper Management

Statutory Analysis

Capital Solution Utilization	Investment	Return	PV Profits
High	\$100,000	15.5%	\$12,812
Medium High	\$250,000	14.1%	\$37,171
Medium	\$500,000	10.7%	\$77,771
None	\$1,000,000	8.0%	\$158,969

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None	\$1,000,000	8.0%	\$158,969	Low

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Medium High	\$250,000	14.1%	\$37,171	Medium High
Medium	\$500,000	10.7%	\$77,771	Medium
None	\$1,000,000	8.0%	\$158,969	Low

Projected GAAP Earnings by Year per \$1000 Statutory Investment:

<u>Capital Solution Utilization</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
High	(\$71)	(\$68)	(\$65)	(\$67)	(\$65)
None	\$40	\$39	\$37	\$38	\$37

Analyzing the Year 10 Commission Scheme

The Deal: Rather than paying out Year 1 Commissions today, accumulate at 7.5% interest and pay in ten years.

The Analysis:

	<u>IRR</u>
Base Product	14%
Revised Commission Scheme	14%

Analyzing the Year 10 Commission Scheme

The Deal: Rather than paying out Year 1 Commissions today, accumulate at 7.5% interest and pay in ten years.

The Analysis:

	<u>IRR</u>	<u>Profit Margin</u>	<u>PV 25Yr GAAP Earnings</u>	<u>Common Sense</u>
Base Product	14%	7.4%	101%	Reasonable
Revised Commission Scheme	14%	3.6%	55%	Mighty Generous

New Growth Strategy

- 1 Reorganize Sales force to pursue Older Aged Sales
- 2 Revamp UL Product to meet this Market's needs (lower premiums).

Why do it?

- > Fertile demographics (lots of available business!)
 - Tap IOLI markets
- > Larger Sales Premium per case
- > Higher profits??

Profitability of Current Sales Strategy

(\$59.8 million of Sales Premiums)

	<u>% of Sales Premium</u>	<u>IRR</u>	<u>Profit Margin</u>	<u>Strain</u>	<u>PV Profits (\$1000s)</u>
Younger Aged	65%	11.3%	9.0%	64%	29,000
Age 70+	<u>35%</u>	<u>17.1%</u>	<u>10.9%</u>	<u>40%</u>	<u>18,016</u>
Total:	100%	12.4%	9.1%	56%	47,016

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Younger Aged	65%	11.3%	9.0%	64%	29,000
Age 70+	35%	17.1%	10.9%	40%	18,016
Total:	100%	12.4%	9.1%	56%	47,016
	<u>New Age 70+</u>	<u>11.4%</u>	<u>4.4%</u>	<u>42%</u>	

New Age 70+

11.4%

4.4%

42%

-26%

Profitability of Older-Aged Sales Strategy

(\$71.1 million of Sales Premiums)

	<u>% of Sales Premium</u>	<u>IRR</u>	<u>Profit Margin</u>	<u>Strain</u>	<u>PV Profits (\$1000s)</u>
Younger Aged	35%	11.3%	9.0%	63%	18,740
Age 70+	<u>65%</u>	<u>11.4%</u>	<u>4.4%</u>	<u>42%</u>	<u>16,093</u>
Total:	100%	11.4%	5.6%	48%	34,833

-26%

Take Aways

- > *A high IRR can be cooked up through low strain.*
- > *Not all IRRs are created Equal. Some have greater :*
 - *Dollar Profits*
 - *GAAP Earnings*
 - *Risk*
- > *IRR is an essential and indispensible Profitability Statistic when used appropriately as a measure of the Rate of Earnings.*