

Funding Alternatives

Funding Alternatives: How to best deal with an Insurable Liability

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Objective

The premise of the Funding Alternatives concept is to allow clients and advisors to weigh the merits of various funding methods to address a future need today. Insurance is only one way that a future need can be covered. Looking at multiple options gives the client a full "view" when it comes to answering the question of what is the best way to fund a future liability?

In order to properly analyze each option, the concept of Present Value is used to bring each option down to one simple cost in today's dollars. The object is not to show which one is "better" or which is preferred but which provides the lowest "cost" solution. Since every solution incurs a cost, none of the options will be particularly favourable, but at least a decision can be made on the merits of the solution based on cost.

Once cost is established, other important items can be taken into account. For instance: the insurance may be the lowest cost but it turns out the client is uninsurable, or cash may be available but the cost of holding the cash for this purpose may be too high to justify not using an alternative, thus freeing up the cash. Borrowing may be cost effective but may put the heirs in a difficult cash flow position at a time when they can least afford to deal with stress. All of these and more considerations should be taken into account.

Understanding Net Present Value Comparison

One of the difficulties in comparing these alternatives is that each has a different cash flow stream. Although each is designed to achieve the same end result, the way they are funded is completely different.

This makes it very difficult to decide which is really the best option from a cost comparison standpoint. The common method used to determine the comparative cost is to calculate the present value of each stream of funding. Basically, taking each option's cost stream and bringing all the required future payments back to today. To do this we need certain specific data:

Discount rate:

In our examples all funding will be created from after tax income of some nature, therefore, it is possible to compare each payment stream using the same discount rate. This rate is similar to inflation or the after tax cost of capital in that it takes a future stream of payments and shows what it is worth in a single number today.



Event (Life Expectancy, CI Diagnosed or LTC Required):

The time of insurance event can be selected or altered. For life insurance analysis we utilize life expectancy which is actuarial life expectancy. For Critical Illness and Long Term Care coverages, we can select an arbitrary "trigger" date in the future when one of these events may occur. This enables us to analyze the options.

Funding Alternatives:**Save:**

The saving example calculates the amount of money that the client will be required to deposit into a fund at which interest will be earned and tax paid so that the correct amount of capital will be available at life expectancy. One problem with this method of funding is that the funding will not be available in full until that point and if death occurs early there will be a shortfall.

Cash:

This alternative utilizes a future pool of savings as the source of funds. You can elect to utilize current savings (ie. Bank account or non-registered funds) or withdrawing funds from RRSP's.

Insurance:

Here you can choose two alternate insurance examples to be illustrated.

Borrow:

In this case there is no cash flow until the loan is taken out to meet the liability. Since this happens at life expectancy the calculation determines the present value based on payments continuing for some time after the death of the client. The challenge with this solution is that the heirs must first be able to obtain the loan and then must use their after tax cash flow to service the payments.

Net Present Value of Funding Alternatives

Accumulation Fund of: \$100,000 at age 65

For: Female Prospect

Female, Age 35, CI Diagnosed age 65

Funding: Critical Illness

Personal Marginal Tax Rate: 40.00%

Before Tax GIC Rate: 5.00%

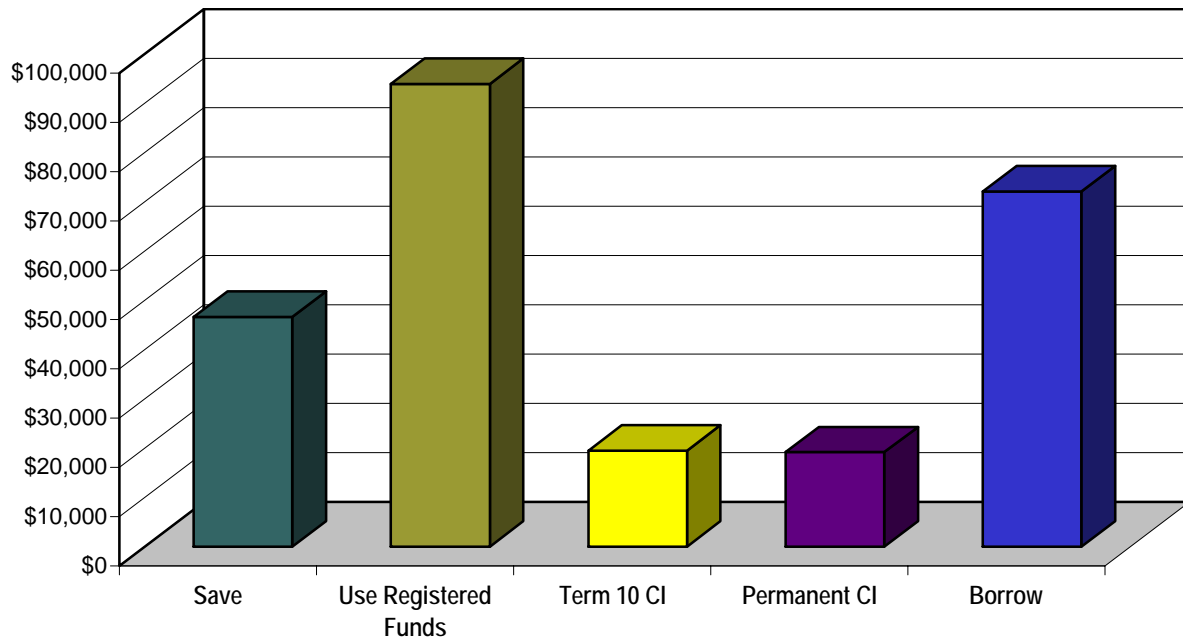
Net Present Value Rate: 2.00%

Loan Interest Rate: 7.00%

by: **CBS Planner**

Net Present Value

Save	46,619
Use Registered Funds	93,852
Term 10 CI	19,527
Permanent CI	19,166 <i>Lowest NPV</i>
Borrow	72,019



Funding Alternatives

For: Female Prospect
 Female, Age 35, CI Diagnosed age 65

Funding: Critical Illness
 Net Present Value Rate: 2.00%

Loan: \$100,000 for 10 Years, compounded Annually at 7.00%

by: **CBS Planner**

	Save	Registered Funds	Term 10 CI	Permanent CI	Borrow
NPV:	<u>\$46,619</u>	<u>\$93,852</u>	<u>\$19,527</u>	<u>\$19,166</u>	<u>\$72,019</u>

Year	Age	30 Annual Deposits	Cash at Age 65	Use Cash	Cash at Age 65	Term 10 CI*	Cash at Age 65	Permanent CI*	Cash at Age 65	Begin Loan payments at Age 65
1	36	2,041		0		375		839		0
2	37	2,041		0		375		839		0
3	38	2,041		0		375		839		0
4	39	2,041		0		375		839		0
5	40	2,041		0		375		839		0
6	41	2,041		0		375		839		0
7	42	2,041		0		375		839		0
8	43	2,041		0		375		839		0
9	44	2,041		0		375		839		0
10	45	2,041		0		375		839		0
11	46	2,041		0		808		839		0
12	47	2,041		0		808		839		0
13	48	2,041		0		808		839		0
14	49	2,041		0		808		839		0
15	50	2,041		0		808		839		0
16	51	2,041		0		808		839		0
17	52	2,041		0		808		839		0
18	53	2,041		0		808		839		0
19	54	2,041		0		808		839		0
20	55	2,041		0		808		839		0
21	56	2,041		0		1,625		839		0
22	57	2,041		0		1,625		839		0
23	58	2,041		0		1,625		839		0
24	59	2,041		0		1,625		839		0
25	60	2,041		0		1,625		839		0
26	61	2,041		0		1,625		839		0
27	62	2,041		0		1,625		839		0
28	63	2,041		0		1,625		839		0
29	64	2,041		0		1,625		839		0
30	65	2,041	100,000	166,667	100,000	1,625	100,000	839	100,000	14,238
31	66	0		0		0		0		14,238
32	67	0		0		0		0		14,238
33	68	0		0		0		0		14,238
34	69	0		0		0		0		14,238
35	70	0		0		0		0		14,238
36	71	0		0		0		0		14,238
37	72	0		0		0		0		14,238
38	73	0		0		0		0		14,238
39	74	0		0		0		0		14,238
40	75	0		0		0		0		0

Net Present Value of Funding Alternatives

Accumulation Fund of: \$100,000 at age 65

For: Male Prospect

Male, Age 35, CI Diagnosed age 65

Funding: Critical Illness

Personal Marginal Tax Rate: 40.00%

Before Tax GIC Rate: 5.00%

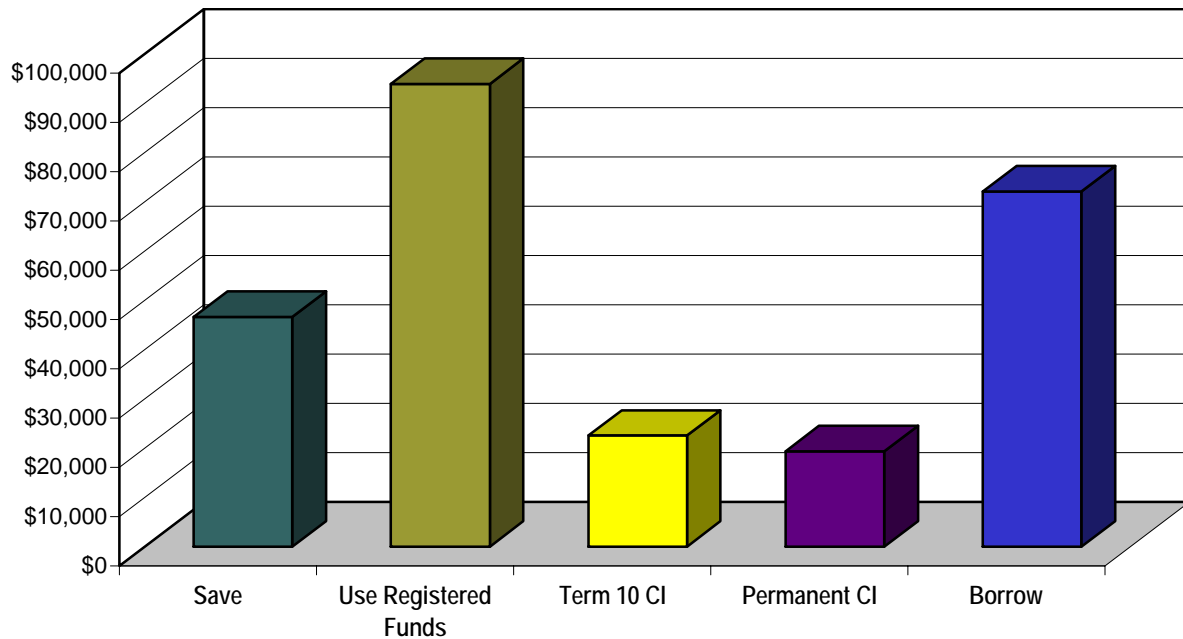
Net Present Value Rate: 2.00%

Loan Interest Rate: 7.00%

by: **CBS Planner**

Net Present Value

Save	46,619
Use Registered Funds	93,852
Term 10 CI	22,545
Permanent CI	19,417 <i>Lowest NPV</i>
Borrow	72,019



Funding Alternatives

For: Male Prospect

Male, Age 35, CI Diagnosed age 65

Funding: Critical Illness
 Net Present Value Rate: 2.00%

Loan: \$100,000 for 10 Years, compounded Annually at 7.00%

by: CBS Planner

Save

Registered Funds

Term 10 CI

Permanent CI

Borrow

NPV: \$46,619

\$93,852

\$22,545

\$19,417

\$72,019

Begin Loan
 payments at
 Age 65

Year	Age	30 Annual Deposits	Cash at Age 65	Use Cash	Cash at Age 65	Term 10 CI*	Cash at Age 65	Permanent CI*	Cash at Age 65	Begin Loan payments at Age 65
1	36	2,041		0		384		850		0
2	37	2,041		0		384		850		0
3	38	2,041		0		384		850		0
4	39	2,041		0		384		850		0
5	40	2,041		0		384		850		0
6	41	2,041		0		384		850		0
7	42	2,041		0		384		850		0
8	43	2,041		0		384		850		0
9	44	2,041		0		384		850		0
10	45	2,041		0		384		850		0
11	46	2,041		0		809		850		0
12	47	2,041		0		809		850		0
13	48	2,041		0		809		850		0
14	49	2,041		0		809		850		0
15	50	2,041		0		809		850		0
16	51	2,041		0		809		850		0
17	52	2,041		0		809		850		0
18	53	2,041		0		809		850		0
19	54	2,041		0		809		850		0
20	55	2,041		0		809		850		0
21	56	2,041		0		2,100		850		0
22	57	2,041		0		2,100		850		0
23	58	2,041		0		2,100		850		0
24	59	2,041		0		2,100		850		0
25	60	2,041		0		2,100		850		0
26	61	2,041		0		2,100		850		0
27	62	2,041		0		2,100		850		0
28	63	2,041		0		2,100		850		0
29	64	2,041		0		2,100		850		0
30	65	2,041	100,000	166,667	100,000	2,100	100,000	850	100,000	14,238
31	66	0		0		0		0		14,238
32	67	0		0		0		0		14,238
33	68	0		0		0		0		14,238
34	69	0		0		0		0		14,238
35	70	0		0		0		0		14,238
36	71	0		0		0		0		14,238
37	72	0		0		0		0		14,238
38	73	0		0		0		0		14,238
39	74	0		0		0		0		14,238
40	75	0		0		0		0		0

Net Present Value of Funding Alternatives

Accumulation Fund of: \$100,000 at age 70

For: Female Prospect

Female, Age 45, CI Diagnosed age 70

Funding: Critical Illness

Personal Marginal Tax Rate: 40.00%

Before Tax GIC Rate: 5.00%

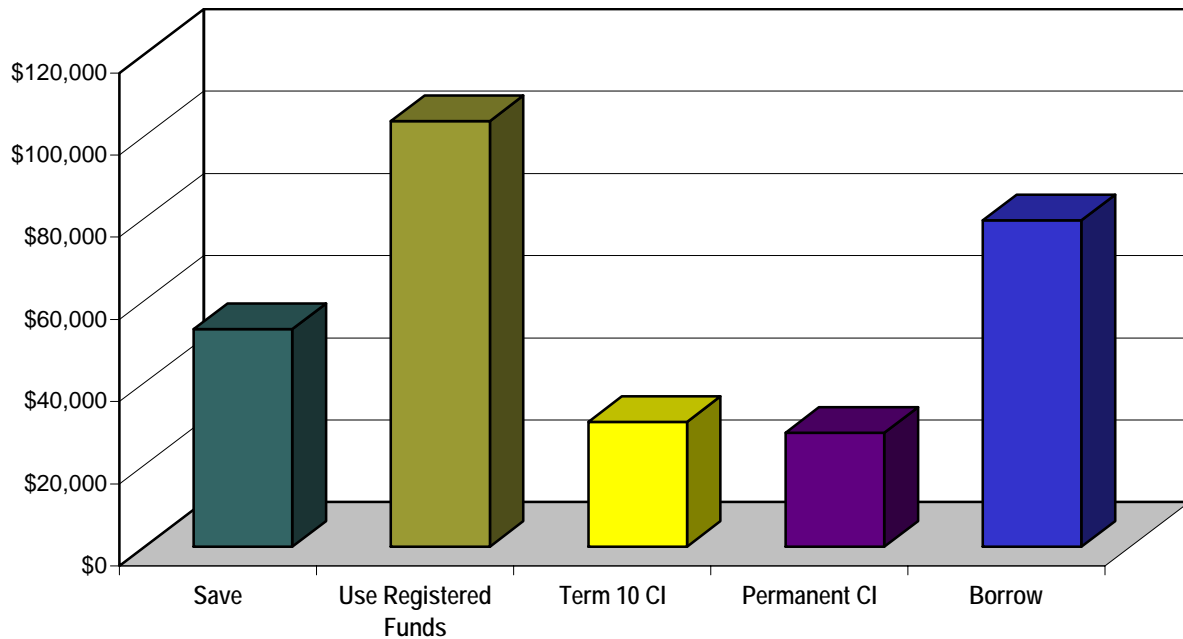
Net Present Value Rate: 2.00%

Loan Interest Rate: 7.00%

by: **CBS Planner**

Net Present Value

Save	53,029
Use Registered Funds	103,620
Term 10 CI	30,451
Permanent CI	27,720 <i>Lowest NPV</i>
Borrow	79,514



Funding Alternatives

For: Female Prospect
 Female, Age 45, CI Diagnosed age 70

Funding: Critical Illness
 Net Present Value Rate: 2.00%

Loan: \$100,000 for 10 Years, compounded Annually at 7.00%

by: **CBS Planner**

	Save	Registered Funds	Term 10 CI	Permanent CI	Borrow
NPV:	<u>\$53,029</u>	<u>\$103,620</u>	<u>\$30,451</u>	<u>\$27,720</u>	<u>\$79,514</u>

Year	Age	25 Annual Deposits	Cash at Age 70	Use Cash	Cash at Age 70	Term 10 CI*	Cash at Age 70	Permanent CI*	Cash at Age 70	Begin Loan payments at Age 70
1	46	2,663		0		741		1,392		0
2	47	2,663		0		741		1,392		0
3	48	2,663		0		741		1,392		0
4	49	2,663		0		741		1,392		0
5	50	2,663		0		741		1,392		0
6	51	2,663		0		741		1,392		0
7	52	2,663		0		741		1,392		0
8	53	2,663		0		741		1,392		0
9	54	2,663		0		741		1,392		0
10	55	2,663		0		741		1,392		0
11	56	2,663		0		1,625		1,392		0
12	57	2,663		0		1,625		1,392		0
13	58	2,663		0		1,625		1,392		0
14	59	2,663		0		1,625		1,392		0
15	60	2,663		0		1,625		1,392		0
16	61	2,663		0		1,625		1,392		0
17	62	2,663		0		1,625		1,392		0
18	63	2,663		0		1,625		1,392		0
19	64	2,663		0		1,625		1,392		0
20	65	2,663		0		1,625		1,392		0
21	66	2,663		0		3,539		1,392		0
22	67	2,663		0		3,539		1,392		0
23	68	2,663		0		3,539		1,392		0
24	69	2,663		0		3,539		1,392		0
25	70	2,663	100,000	166,667	100,000	3,539	100,000	1,392	100,000	14,238
26	71	0		0		0		0		14,238
27	72	0		0		0		0		14,238
28	73	0		0		0		0		14,238
29	74	0		0		0		0		14,238
30	75	0		0		0		0		14,238
31	76	0		0		0		0		14,238
32	77	0		0		0		0		14,238
33	78	0		0		0		0		14,238
34	79	0		0		0		0		14,238
35	80	0		0		0		0		0

Net Present Value of Funding Alternatives

Accumulation Fund of: \$100,000 at age 70

For: Male Prospect

Male, Age 45, CI Diagnosed age 70

Funding: Critical Illness

Personal Marginal Tax Rate: 40.00%

Before Tax GIC Rate: 5.00%

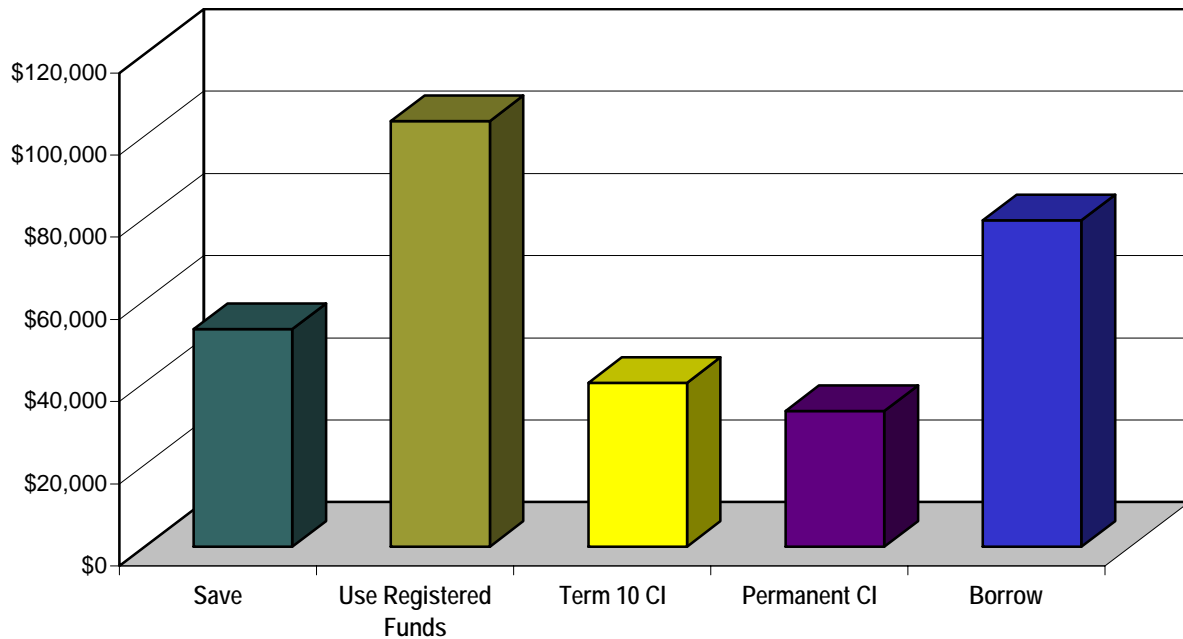
Net Present Value Rate: 2.00%

Loan Interest Rate: 7.00%

by: **CBS Planner**

Net Present Value

Save	53,029
Use Registered Funds	103,620
Term 10 CI	39,845
Permanent CI	33,035 <i>Lowest NPV</i>
Borrow	79,514



Funding Alternatives

For: Male Prospect

Male, Age 45, CI Diagnosed age 70

Funding: Critical Illness
 Net Present Value Rate: 2.00%

Loan: \$100,000 for 10 Years, compounded Annually at 7.00%

by: CBS Planner

Save

Registered Funds

Term 10 CI

Permanent CI

Borrow

NPV: \$53,029

\$103,620

\$39,845

\$33,035

\$79,514

Begin Loan
 payments at
 Age 70

Year	Age	25 Annual Deposits	Cash at Age 70	Use Cash	Cash at Age 70	Term 10 CI*	Cash at Age 70	Permanent CI*	Cash at Age 70	Begin Loan payments at Age 70
1	46	2,663		0		742		1,659		0
2	47	2,663		0		742		1,659		0
3	48	2,663		0		742		1,659		0
4	49	2,663		0		742		1,659		0
5	50	2,663		0		742		1,659		0
6	51	2,663		0		742		1,659		0
7	52	2,663		0		742		1,659		0
8	53	2,663		0		742		1,659		0
9	54	2,663		0		742		1,659		0
10	55	2,663		0		742		1,659		0
11	56	2,663		0		2,100		1,659		0
12	57	2,663		0		2,100		1,659		0
13	58	2,663		0		2,100		1,659		0
14	59	2,663		0		2,100		1,659		0
15	60	2,663		0		2,100		1,659		0
16	61	2,663		0		2,100		1,659		0
17	62	2,663		0		2,100		1,659		0
18	63	2,663		0		2,100		1,659		0
19	64	2,663		0		2,100		1,659		0
20	65	2,663		0		2,100		1,659		0
21	66	2,663		0		5,336		1,659		0
22	67	2,663		0		5,336		1,659		0
23	68	2,663		0		5,336		1,659		0
24	69	2,663		0		5,336		1,659		0
25	70	2,663	100,000	166,667	100,000	5,336	100,000	1,659	100,000	14,238
26	71	0		0		0		0		14,238
27	72	0		0		0		0		14,238
28	73	0		0		0		0		14,238
29	74	0		0		0		0		14,238
30	75	0		0		0		0		14,238
31	76	0		0		0		0		14,238
32	77	0		0		0		0		14,238
33	78	0		0		0		0		14,238
34	79	0		0		0		0		14,238
35	80	0		0		0		0		0