

NOTE ON PERSONAL FINANCIAL PLANNING LIFE INSURANCE NEEDS ANALYSIS

*François Brouard, DBA, FCPA, FCA
Sprott School of Business, Carleton University*

Life Insurance Timing

Funding period	Needs of funds period	
	Funds for Parent 2 and children	Funds for children
Now	Death Parent1	Death Parent2

Life Insurance Calculations

A) Cash Required at Death

Cash requirements immediately (funeral costs, accounts payable)	(CRI)	1
Cash available (life insurance on death, collective insurance, other cash)	CAI	2
Net cash available (NCAI) / Required cash (RCI) (CRI-CAI)	<u>NCAI / (RCI)</u>	3

B) Cash Required after Death (Long-Term)

Cash required for mortgage and children education	(CRME)	4
Cash available (insurance on mortgage)	CAIM	5
Cash available (investments, personal assets / other assets to liquidate)	CAIP	6
Net cash available (NCA) / Required cash (RC) (CRME-CAIM-CAIP)	<u>NCA / (RC)</u>	7

C) Annual Living Expenses

	<u>Parent</u>	<u>Children</u>	
Living expenses	LE-P	LE-C	
Adjusted level of living expenses (55%-75%)	ALE-P	ALE-C	
Living expenses to be covered			<u><u>LE-TBC</u></u> 8

D) Actual Annual Income to Cover Living Expenses

	<u>Parent</u>	<u>Children</u>	
Employment income	INC-PE	INC-CE	
Business income	INC-PB	INC-CB	
Property income	INC-PP	INC-CP	
Other income	INC-PO	INC-CO	
sub-total	INC-P	INC-C	
Income tax on income	x tax rate P	x tax rate C	
	INC-P	INC-C	
Total annual income to cover living expenses (after tax)			<u><u>INC</u></u> 9

E) Additional Insurance Needed

Net cash available (NCAI) / Required cash (RCI)	(from 3)	NCAI / (RCI)	
Net cash available (NCA) / Required cash (RC)	(from 7)	NCA / (RC)	
If negative = amount; if positive = 0		<u>(RCI + RC) =</u>	RCIRC 10
or If positive (investment inc. ((NCAI+NCA)x %) - tax)		II	
Living expenses to be covered	(from 8)	(LET-BC)	
Actual total annual income (after tax)		INC	
If negative ((II + (-LET-BC) + INC), Missing annual income		MINC	
Missing Capital to cover living expenses (Investment rate at %)		/ ___%	<u>MICLE</u> 11
Additional insurance needed	(10 + 11)		<u><u>ADIN</u></u> 12