

Financial Game 1: Explanation

Financial Game 1

Best Life Insurance

- Each group is required to figure out the most valuable life insurance program for the specified customers.

Example

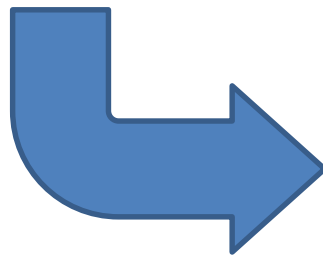
SCB Best Saving 15/8

ออมคุณค่า 15/8		ตัวอย่างพลประโยชน์ (ชาย / หญิง อายุ 30 ปี)
อายุที่รับประกันภัย	1 วัน – 80 ปี	เริ่มทำประกันภัย อายุ 30 ปี
ระยะเวลาชำระเบี้ยประกันภัย	8 ปี	ตั้งแต่อายุ 30 – 37 ปี
ระยะเวลาเอาประกันภัย	15 ปี	ถึงอายุ 45 ปี
จำนวนเงินประกันภัย	เริ่มต้น 50,000 บาท – สูงสุดไม่จำกัด	500,000 บาท
เบี้ยประกันภัย (ชำระ ณ ต้นปีกรมธรรม์)	คำนวณเบี้ยเบื้องต้น	รายปี งวดละ 437,500 บาท
พลประโยชน์กรณีมีชีวิตอยู่		
มีเงินคืนระหว่างสัญญา	ปีละ 2% ณ สิ้นปีกรมธรรม์ที่ 1 – 5	50,000 บาท
	ปีละ 3% ณ สิ้นปีกรมธรรม์ที่ 6 – 10	75,000 บาท
	ปีละ 4% ณ สิ้นปีกรมธรรม์ที่ 11 – 15	100,000 บาท
เงินคืนเมื่อครบสัญญา	870% ณ สิ้นปีกรมธรรม์ที่ 15	4,350,000 บาท
ผลประโยชน์เงินคืนรวมตลอดสัญญา	915%	4,575,000 บาท
พลประโยชน์กรณีเกิดเหตุการณ์ไม่คาดฝัน		
ความคุ้มครองกรณีเสียชีวิตทั่วไป	100% – 800% (ขึ้นอยู่กับปีกรมธรรม์ที่ระบุ)	500,000 – 4,000,000 บาท
เบี้ยประกันภัยเฉพาะสัญญาณหลักสามารถนำไปลดหย่อนภาษีได้สูงสุด 100,000 บาทต่อปี (ภายใต้เงื่อนไขของกรมสรรพากร)		

Required Information

What we need to know:

- 1) Premium
- 2) Sum assured
- 3) Cash return
- 4) Other benefits

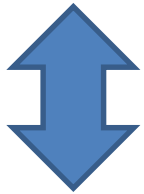


Year (end)	Payments
0	437,500.00
1	437,500.00
2	437,500.00
3	437,500.00
4	437,500.00
5	437,500.00
6	437,500.00
7	437,500.00
8	
9	
10	
11	
12	
13	
14	
15	
15	
Total	3,500,000.00

Year (end)	Returns
0	-
1	10,000.00
2	10,000.00
3	10,000.00
4	10,000.00
5	10,000.00
6	15,000.00
7	15,000.00
8	15,000.00
9	15,000.00
10	15,000.00
11	20,000.00
12	20,000.00
13	20,000.00
14	20,000.00
15	20,000.00
15	4,350,000.00
Total	4,575,000.00

Calculating Internal Rate of Returns

$$P = \frac{C}{1+i} + \frac{C}{(1+i)^2} + \dots + \frac{C}{(1+i)^n} + \frac{F}{(1+i)^n}$$



$$P = \frac{P_1}{1+i} + \frac{P_2}{(1+i)^2} + \dots + \frac{P_m}{(1+i)^m}$$

- Look at the Excel file again.
- Apart from the cash returns, tax benefits can be seen as a part of the cash flows provided by the insurance policy.

Personal Income Tax in Thailand

Assessable income

Less Deductible expenses

Less Allowances

Net income

Deductible Income

- Generally, a deductible of 50% of assessable income is allowed subject to a maximum of Baht 100,000
- Note: The rate of deductible may vary for some types of assessable income

Allowances

1. <i>Personal allowances</i>	<i>Baht</i>
• Taxpayer	60,000
• Spouse (if spouse has no income)	60,000
• Taxpayer's legitimate child or the spouse's legitimate child (without limit) each	30,000
• Taxpayer's adopted child (maximum 3), each (If there are legitimate and adopted children together, a maximum of only 3 children allowed)	30,000
• Parental care, each	30,000
• Care of disabled or incapacitated family members, each	60,000
• Care of a disabled or incapacitated person other than a family member	60,000

In addition, a Thai resident who is 65 years of age or older is entitled to personal income tax exemption on income up to an amount not exceeding Baht 190,000.

Allowances

2. *Specific allowances*

- Life insurance premiums in an amount not exceeding Baht 100,000 paid by a taxpayer on his/her own life are allowed as a deduction provided that the insurance policies are for a minimum period of ten years and the insurer is carrying on a life insurance business in Thailand. The amount of any embedded health or accident premium will not be deductible. Moreover, if the policy includes a savings plan which provides an annual return to the policy holder exceeding 20% of the annual premium, the entire premium will be non-deductible.

Deposits with banks in the type similar to life insurance for a minimum deposit term of ten years is allowed as a deduction in the amount up to Baht 100,000 in each tax year. However, these deposits together with the above qualified life insurance premiums must not exceed Baht 100,000 in each tax year.

In addition, the amount paid, up to a maximum of Baht 10,000, for a life insurance premium for the taxpayer's spouse who does not earn income is also allowed providing their marital status exists throughout the tax year.

Tax Rate

Net income (Baht)	Tax rates
0 – 150,000	Exempt
150,001 – 300,000	5%
300,001 – 500,000	10%
500,001 – 750,000	15%
750,001 – 1,000,000	20%
1,000,001 – 2,000,000	25%
2,000,001 – 5,000,000	30%
Over 5,000,000	35%

Tax Calculation: Examples without life insurance

W/O Life Insurance	Case 1	Case 2	Case 3
	Income = 20,000 baht/month	Income = 40,000 baht/month	Income 100,000 baht/month
Assessible Income	240,000	480,000	1,200,000
<u>Less</u> Personal Expenses	100,000	100,000	100,000
Less Allowance(s)			
(a) Personal	60,000	60,000	60,000
(b) Life insurances			
Net Income Before Tax	80,000	320,000	1,040,000
<u>Tax Calculation</u>			
Bracket 1 (0 - 150,000)	80,000	150,000	150,000
Bracket 2 (150,001 - 300,000)	0	150,000	150,000
Bracket 3 (300,001 - 500,000)	0	20,000	200,000
Bracket 4 (500,001 - 750,000)	0	0	250,000
Bracket 5 (750,001 - 1,000,000)	0	0	250,000
Bracket 6 (1,000,001 - 2,000,000)	0	0	40,000
<u>Tax from:</u>			
Bracket 1 (0 - 150,000)	0	0	0
Bracket 2 (150,001 - 300,000)	0	7,500	7,500
Bracket 3 (300,001 - 500,000)	0	2,000	20,000
Bracket 4 (500,001 - 750,000)	0	0	37,500
Bracket 5 (750,001 - 1,000,000)	0	0	50,000
Bracket 6 (1,000,001 - 2,000,000)	0	0	10,000
Total Tax	0	9,500	125,000

Tax Calculation: Examples with life insurance

W Life Insurance	Case 1	Case 2	Case 3
	Income = 20,000 baht/month	Income = 40,000 baht/month	Income 100,000 baht/month
Assessible Income	240,000	480,000	1,200,000
Less Personal Expenses	100,000	100,000	100,000
Less Allowance(s)			
(a) Personal	60,000	60,000	60,000
(b) Life insurances	100,000	100,000	100,000
Net Income Before Tax	-20,000	220,000	940,000
<i>Tax Calculation</i>			
<i>Bracket 1 (0 - 150,000)</i>	-20,000	150,000	150,000
<i>Bracket 2 (150,001 - 300,000)</i>	0	70,000	150,000
<i>Bracket 3 (300,001 - 500,000)</i>	0	0	200,000
<i>Bracket 4 (500,001 - 750,000)</i>	0	0	250,000
<i>Bracket 5 (750,001 - 1,000,000)</i>	0	0	190,000
<i>Bracket 6 (1,000,001 - 2,000,000)</i>	0	0	0
<i>Tax from:</i>			
<i>Bracket 1 (0 - 150,000)</i>	0	0	0
<i>Bracket 2 (150,001 - 300,000)</i>	0	3,500	7,500
<i>Bracket 3 (300,001 - 500,000)</i>	0	0	20,000
<i>Bracket 4 (500,001 - 750,000)</i>	0	0	37,500
<i>Bracket 5 (750,001 - 1,000,000)</i>	0	0	38,000
<i>Bracket 6 (1,000,001 - 2,000,000)</i>	0	0	0
Total Tax	0	3,500	103,000

Tax Calculation: Examples of tax benefits

	Case 1	Case 2	Case 3
	Income = 20,000 baht/month	Income = 40,000 baht/month	Income 100,000 baht/month
Total tax without life insurance	0	9,500	125,000
Total tax with life insurance	0	3,500	103,000
<u>Tax Benefit</u>	0	6,000	22,000

Example

SCB Best Saving 15/8

SCB Best Saving 15/8								
	$i =$	2.88%			<i>Sum assured</i>	500,000.00		
Year (end)	Payments	Discount Factor	PV	Year (end)	Returns	Tax Benefits	Discount Factor	PV
0	437,500.00	1.00	437,500.00	0	-	22,000.00	1.00	22,000.00
1	437,500.00	1.03	425,248.04	1	10,000.00	22,000.00	1.03	31,103.86
2	437,500.00	1.06	413,339.19	2	10,000.00	22,000.00	1.06	30,232.81
3	437,500.00	1.09	401,763.84	3	10,000.00	22,000.00	1.09	29,386.16
4	437,500.00	1.12	390,512.65	4	10,000.00	22,000.00	1.12	28,563.21
5	437,500.00	1.15	379,576.55	5	10,000.00	22,000.00	1.15	27,763.31
6	437,500.00	1.19	368,946.70	6	15,000.00	22,000.00	1.19	31,202.35
7	437,500.00	1.22	358,614.54	7	15,000.00	22,000.00	1.22	30,328.54
8		1.26	-	8	15,000.00		1.26	11,951.03
9		1.29	-	9	15,000.00		1.29	11,616.35
10		1.33	-	10	15,000.00		1.33	11,291.04
11		1.37		11	20,000.00		1.37	14,633.12
12		1.41		12	20,000.00		1.41	14,223.33
13		1.45		13	20,000.00		1.45	13,825.01
14		1.49		14	20,000.00		1.49	13,437.85
15		1.53		15	20,000.00		1.53	13,061.53
15		1.53		15	4,350,000.00		1.53	2,840,882.04
Total	3,500,000.00		3,175,501.52	Total	4,575,000.00			3,175,501.52

Other factors

- Financial situation
- The insurance company
- Reason for buying a program
- Plan for the future
- Etc.