FINA 2342 Insurance: Theory and Practice

Course Project: Life Insurance Policy Recommendation

by Cost Index, Financial Capacity, and Policy Coverage Analysis

Contents

Abstract

With the comparison of critical illnesses (CI) insurance policies from 5 insurance companies, namely AIA, AXA, Prudential, Manulife and BOC, this report is aimed to select the optimal CI policy, with around 1 million coverage and 20 years' premium payment, for the 44-year-old uncle of the writers, Mr. Chan.

To provide a comprehensive comparison, a cost measure comparison by calculating Surrender Cost Index (SCI) and Net Payment Cost Index (NPCI) is followed by a sensitivity analysis that measures the sensitivity of the cost indexes towards different non-guaranteed values. A capacity comparison of the insurance companies was conducted to compare the profit margins and ability to pay non-guaranteed dividends, along with a company rating comparison for more insights. Furthermore, the report would compare the policy coverage to differentiate the policies in terms of technical details. Based on these analyses, the optimal policy will be suggested taking in account the preferences and conditions of the policyholder, Mr. Chan.

Last but not least, suggestions on policy design and clarity were made to insurers whose policies were analyzed in this report. Finally, the report will be ended with reflections of our group members after the completion of this report.

1 Cost Comparison

Considering these five policies have significant differences in annual premium, payment period, dividend, interest rate, cash value and death/illness benefit, the first part of the evaluation is to compare the cost indexes, namely Net Payment Cost Index (NPCI) and Surrender Cost Index (SCI). NPCI indicates the cost of a policy if the insured is diagnosed with at least one conditions covered in the critical illness coverage or dies in a specified year. Since it is uncertain when the death or critical illness benefit will be paid, it is necessary to calculate NPCI for each year in the insurance period, which is taken as 30 years as required.

SCI indicates the cost of a policy if the insurant surrenders the policy in a specific year. It is believed that this index should be taken into consideration, since Mr. Chan may be diagnosed with some illnesses which are not covered in the insurance policies and therefore urgently requires cash, or faced with some serious financial distress. In these situations, he may choose to surrender the insurance to get the cash value of the policy back.

1.1 Calculation method of NPCI and SCI

1.1.1 AIA

For AIA, the accumulated annual dividends were provided in the policy. The maturity dividend will be paid upon the death or surrender of Mr. Chan. Therefore, the annual dividend accumulated and the maturity dividend was summed to obtain the total dividend for the corresponding year. The accumulated total premium was then subtracted by total dividend to give the net premium, which was divided by the cost of money, calculated using a compound rate of 5%, to give the Interest-adjusted Cost (IAC) for that year. It was then divided by coverage and multiplied by 1000, to give the NPCI.

For SCI, accumulated total premium was first subtracted by guaranteed cash value to give the insurance cost. This number was then subtracted by total dividend and then divided by the opportunity cost to give the IAC. Similarly, it was adjusted to per $1000 coverage basis for

comparison.

1.1.2 AXA

AXA policy does not pay any annual dividend but offers to pay special bonus, which is a non-guaranteed lump-sum payment that adds on to the death and critical illness benefit, or is paid upon surrender or maturity. This is hence essentially the same with the maturity dividend by AIA, and was treated likewise. It should be noted that 35% of the face amount of the policy will be paid additional to the original amount if claims are made before the 10th policy anniversary, so for the NPCI and SCI calculation before the 10^{th} policy year, the coverage amount is 35% larger. The rest procedures are the same as that of AIA.

1.1.3 BOC

BOC provides a lump-sum terminal dividend, shares the same payment structure as the maturity dividend by AIA, hence it was summed up with the accumulated annual dividend to obtain the total accumulated dividend while calculating NPCI and SCI. Furthermore, the guaranteed major illness/death benefit is $153600 for the first 15 policy years and 128000 for the rest.

1.1.4 Manulife

As for Manulife, it was noticed that it doesn't pay any maturity dividend or special bonus other than annual dividends. The total dividend hence consists of only maturity dividend. The procedure of calculation is the same with that of AXA.

1.1.5 Prudential

For Prudential, a lump-sum terminal bonus is included, which share the same payment structure with maturity dividend by AIA and the special bonus, hence it was treated likewise. It should be noted that the terminal bonus is only available after the 5^{th} policy year. The major disease/death benefit contains coverage of $128000, and a guaranteed 10-year crisis cover of $44800 in case the claim is made before the 10^{th} policy year. The procedure of calculation is the same with that of AIA.

1.2 Comparisons for NPCI and SCI

1.2.1 NPCI

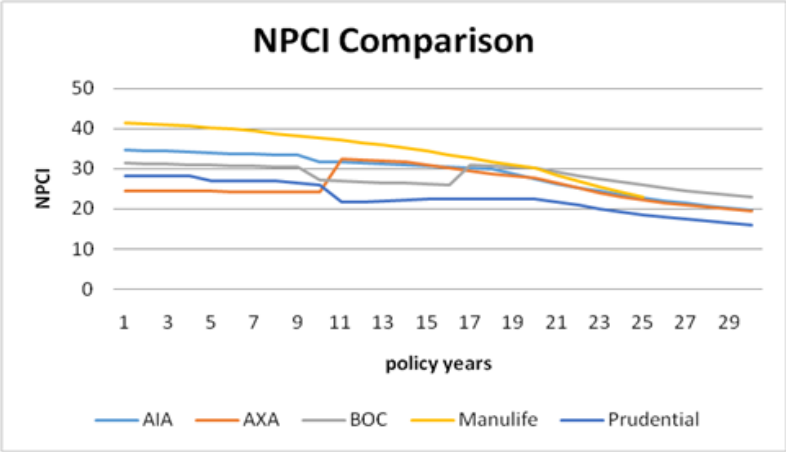

Figure 1. NPCI comparison

According to the graph, NPCI of all policies decreases over time. In the first ten years, the policy by AXA has the lowest NPCI, followed by BOC, AIA, Prudential and Manulife in ascending order. However, the NPCI of AXA policy increases significantly in the 10th policy anniversary, which is caused by the ceasing of extra 35% coverage benefit.

Therefore, from the 10th policy year on, Prudential has the lowest NPCI.

1.2.2 SCI

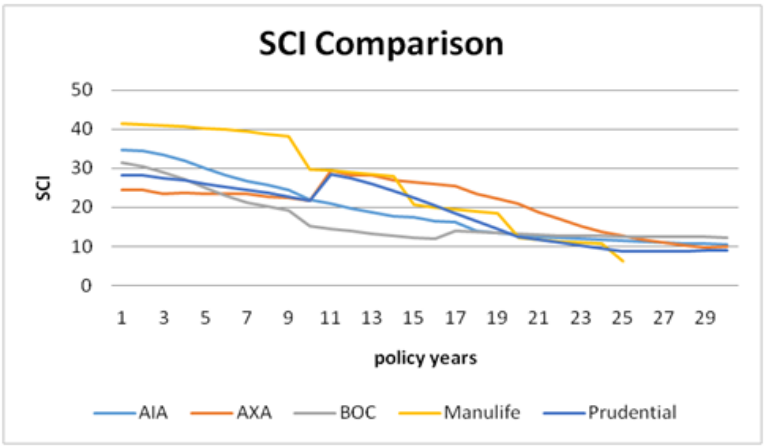

Figure 2. SCI comparison

For SCI part, the graph above shows that the general tendency for five policies is still going down

as time goes by. The jump in the 10th policy anniversary for AXA and in the 15th policy anniversary for BOC is also due to the loss of death benefits.

As a conclusion, according to the NPCI graph, for the first ten years, the cost of AXA is the lowest and for the next following years, the cost of Prudential is the lowest among the five policies. The death rate of Mr. Chan in his 44 to 54 period is (924905-869466) / 924905 = 0.0596, which is comparatively low. Therefore, from mathematical perspective, after the comparison of the NPCI for these five policies, it is suggested that Mr. Chan choose the Prudential, which has the lowest cost in long term.

2 Sensitivity Analysis

2.1 Risk by non-guaranteed values

The five policies contain non-guaranteed values that are fundamental determinants of performance of the policies. The change in these values leads to fluctuation of the cost and benefits of the policies. For example, dividends shown on policies are projected figures that are estimations based on past information and market expectation. The fluctuation of dividends significantly affects the net premium of the policies, and hence the NPCI and SCI. To capture the effect of these risks posed by the non-guaranteed value on the cost, we have conducted sensitivity analysis on NPCI and SCI of the five policies, and calculated their sensitivity towards four variables, namely average dividend interest rate, annual dividend, and maturity dividend.

2.1.1 Definition of the variable

- **Average dividend interest rate**

The average rate adopted by insurance companies in annual dividend accumulation, assuming the dividends will be deposited until maturity of the policies. This should be differentiated from the discount rate used when computing the future value of total premium, which represents the

opportunity cost of premium by the insured.

- **Annual dividend**

The amount of dividend distributed each year by insurance companies.

- **Maturity dividend**

The amount of one-time cash payment payable by insurance companies at maturity. The term used to describe this factor varies among policies.

2.1.2 Conclusion of variables in five policies

It should be noted that not all policies have the same non-guaranteed values. For example, Prudential and AXA policies do not pay annual dividend. The non-guaranteed values contained in the policies are represented in the table below.

	Interest Rate	Annual Dividend	Maturity Dividend
AIA	✓	✓	✓
AXA			✓
BOC	✓	✓	✓
Manulife	✓	✓	
Prudential			✓

Figure 3. Non-guaranteed values of insurance policies

2.2 Methodology

The sensitivity of NPCI and SCI towards different independent variables were captured by calculating the percentage change of NPCI and SCI caused by variations of independent variables, which are also represented in percentage term. The projected values provided in the policies are taken as average or expected value. The values that are not consistent through time, such as annual dividends, premium and interest rate are assumed to increase for the same percentage each year, and sensitivity analysis is conducted based on that percentage, otherwise known as the average variation. For the calculation of changed total dividends due to change in annual dividend face

amount or interest rate, the accumulated dividend is decomposed into annual dividend, and compounded in a new rate. As the values of NPCI and SCI in each year are different for the same policy, the values of the 10th, and 20th policy year are used to conduct the sensitivity analysis. The sensitivity analysis towards interest rate and annual interest rate gave consistent results for 10th and 20th year data, so only the graph of the 10th will be shown to avoid redundancy. The 20th year graph could be found in appendix for reference. However, maturity dividend analysis gave different results for the two sets of data, so both cases were discussed.

2.3 Sensitivity towards interest rate

Insurers with sensitivity towards interest rate: AIA, BOC, Manulife.

Among the policies, the one by Manulife demonstrated the highest sensitivity towards the change in dividend interest rate, reaching nearly a 0.8% change in NPCI and SCI, when the variation of interest rate is -50%, which makes the cost for purchasing Manulife policy most vulnerable to interest rate risk. However, the magnitude of change is relatively insignificant. In year 10, a 50 % change in interest rate could only cause a change in costs for at most 0.8%.

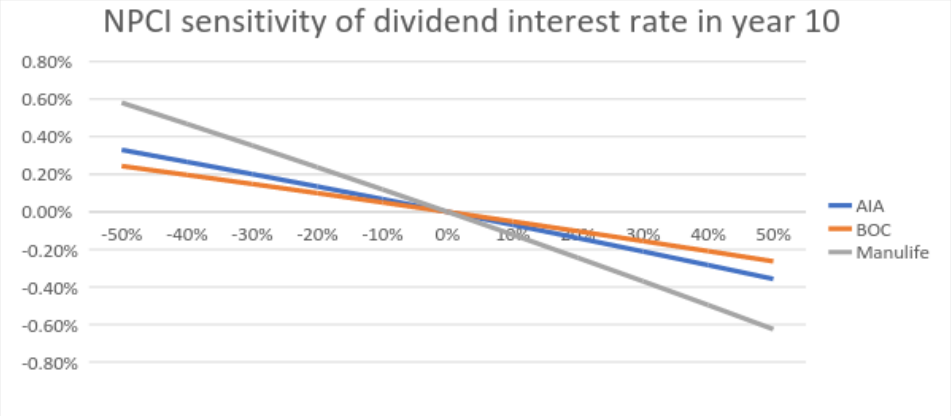

Figure 4. NPCI sensitivity of dividend interest rate

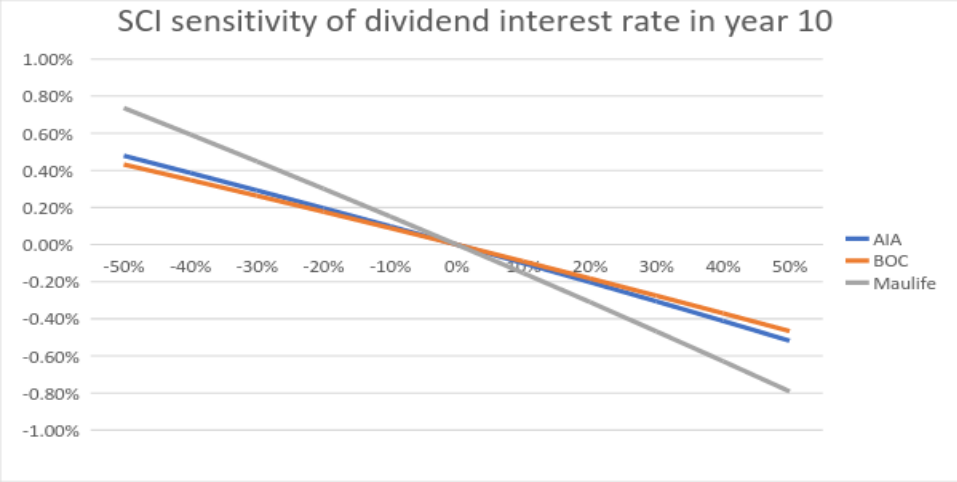

Figure 5. SCI sensitivity of dividend interest rate

2.4 Sensitivity towards annual dividend

Insurers with sensitivity towards annual dividend: AIA, BOC, Manulife.

Among the policies, the one by Manulife demonstrated the largest sensitivity towards annual dividend. The NPCI and SCI will increase by nearly 0.8% when the annual dividend is 50% lower than the projected value. Manulife policy thus has a significantly higher vulnerability towards dividend risk. However, the magnitude of change caused by dividend risk is not very significant as well, so the consideration given to it should be limited.

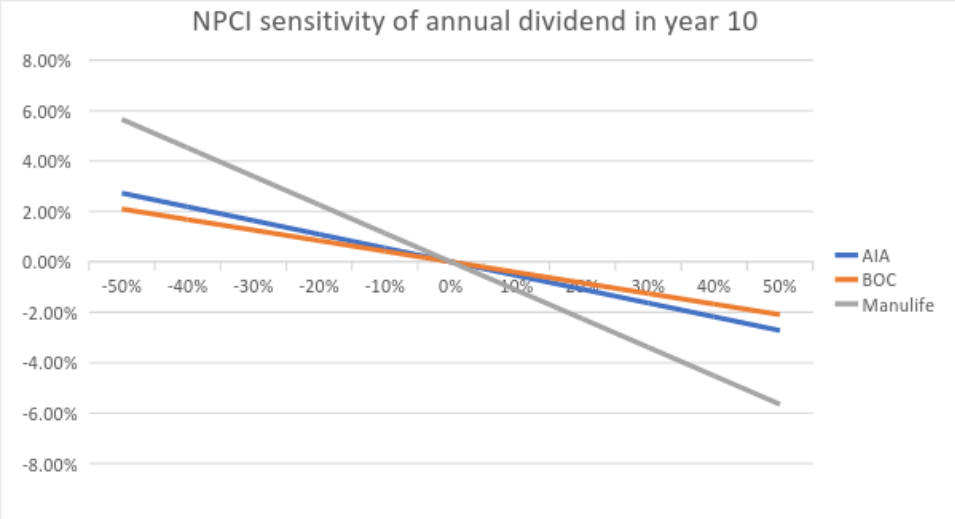

Figure 6. NPCI sensitivity of annual dividend

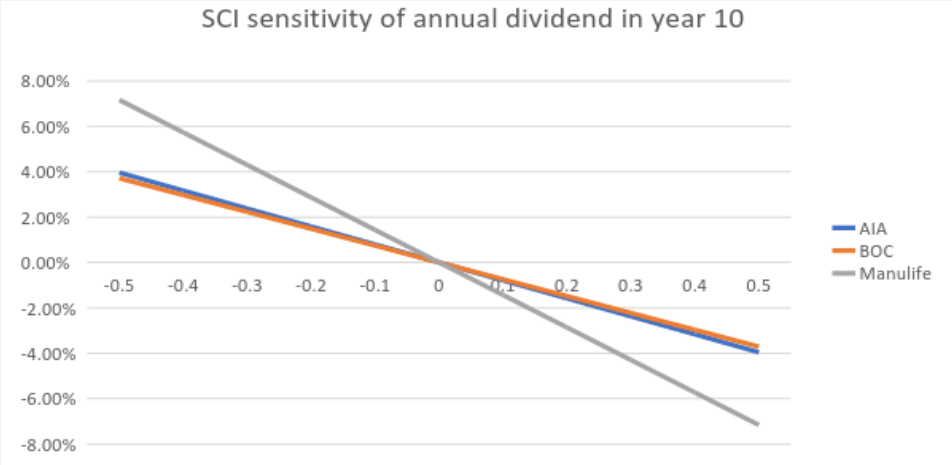

Figure 7. SCI sensitivity of annual dividend

2.5 Sensitivity towards mutual dividend

2.5.1 Result in the 10th policy year

Insurers with sensitivity towards annual dividend: AIA, AXA, Prudential, BOC.

Among the policies, the one by BOC demonstrated the largest NPCI sensitivity towards maturity dividend in year 10, and is followed by Prudential, AIA and then AXA. If the buyer intends to receive the death or illness benefit, the policy by AXA has the least vulnerability to maturity dividend change, while that by BOC has the most. However, the SCI of AXA shows the highest sensitivity towards the change in maturity dividend, when that by Prudential has the least. Therefore, if there is a high probability of surrender, AXA policy is the most susceptible to the change in maturity dividend and Prudential is the least.

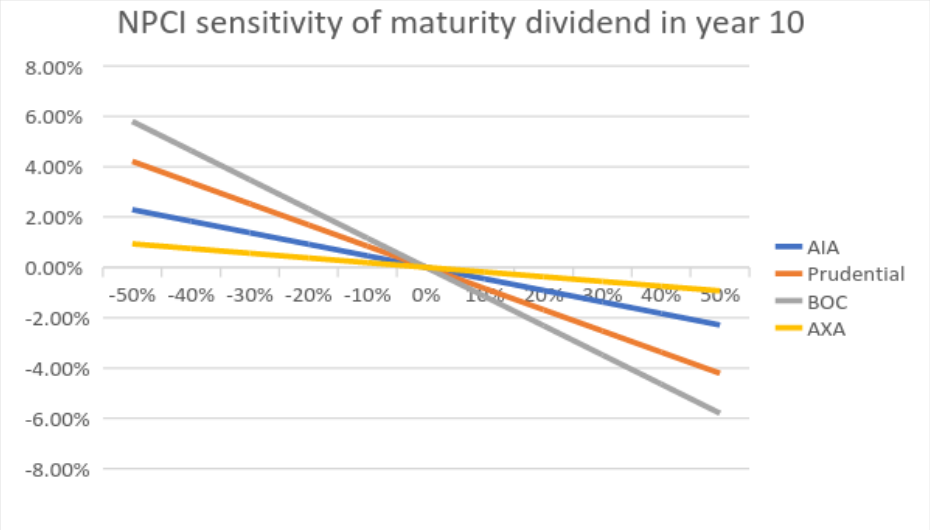

Figure 8. NPCI sensitivity of maturity dividend

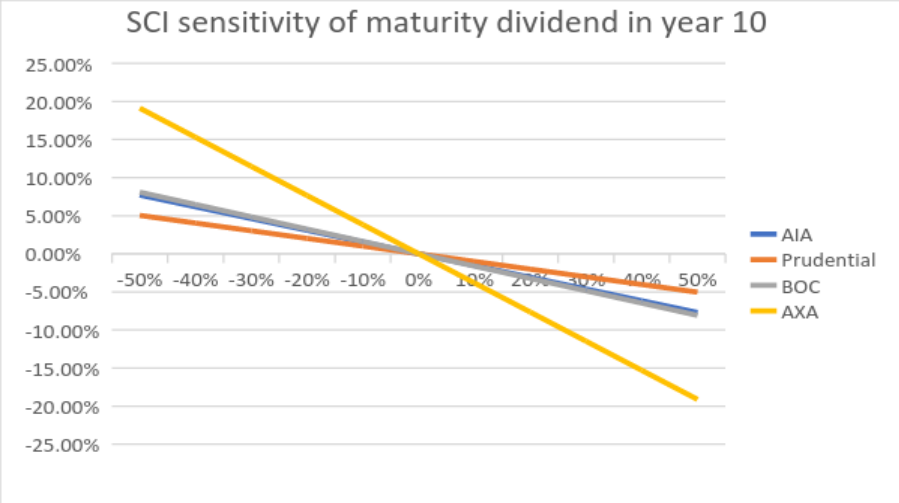

Figure 9. SCI sensitivity of maturity dividend

2.5.2 Result in the 20th policy year

In the case of sensitivity towards maturity dividend, the results obtained from the year 10 data and year 20 data are substantially different. It is therefore worth discussing them separately. As can be seen from the graph, in year 20, Prudential has the highest sensitivity towards maturity dividend. As the policy time lengthens, the vulnerability of cost to this risk of the policy by Prudential increases. Therefore, if the claim or surrender is not expected to happen in short term, Prudential policy has a significant downside.

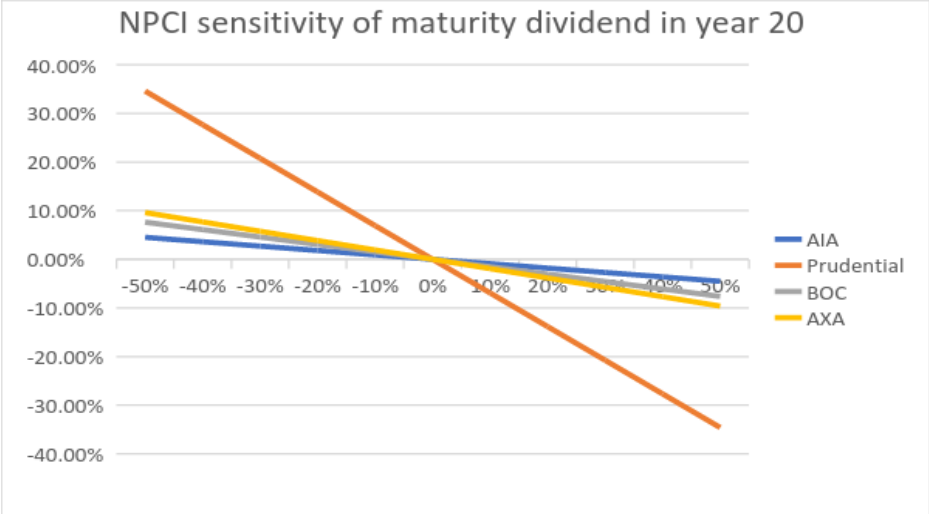

Figure 10. NPCI sensitivity of maturity dividend

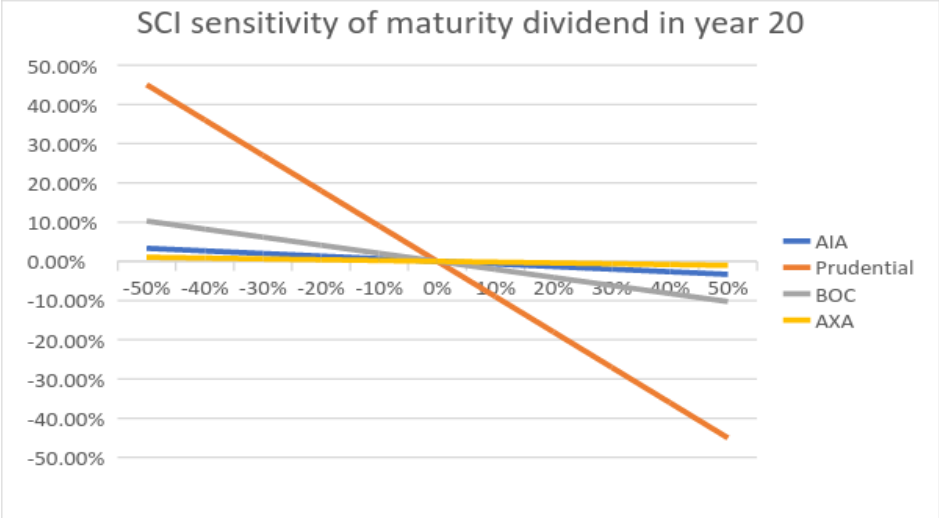

Figure 11. SCI sensitivity of maturity dividend

3 Financial Capacity Comparison

Even though cost comparison should be the focus of evaluation, insurance policy can never be split from insurance company completely. Therefore apart from cost comparison among these insurance policies, financial capacity of different insurance companies, which may affect the realization of non-guaranteed dividends, should also be taken into consideration. This section will evaluate the financial capacity of these companies based mainly on their profitability including net margin and

free cash flow.

3.1 Profitability comparison

Due to the absence of complete historical data regarding non-guaranteed dividends paid to single policyholder, profitability index such as net margin and free cash flow will be used as indicators with the assumption that dividends distributed to policyholders are related to profitability and free cash flows of the insurance company to some degree. Vertical analysis of each company will be displayed one by one together with a horizontal comparison among these companies in this section. Since it is difficult to get accurate information of BOC life as it is a subsidiary of BOC group, analysis of BOC group will not be covered in this section.

3.1.1 AIA

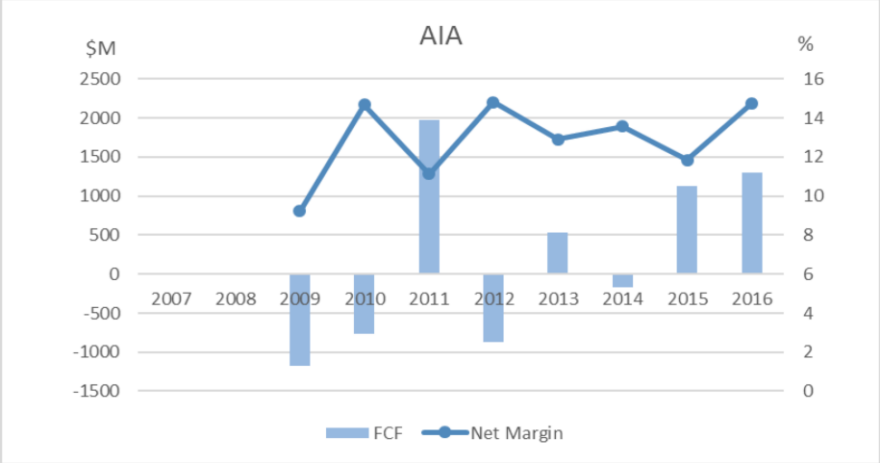

Figure 12. AIA profitability condition

Based on the data acquired from AIA's annual reports, the line chart (figure 10) reveals an overall growing trend of AIA's net margin, which has been maintained at a level higher than 10% since 2010. On the other hand, even though it might be difficult for AIA to keep its free cash flow at an extraordinary high level since it has been listed only for less than 10 years, a growing trend of AIA's free cash flow has been shown recently.

Thus, with high profitability and growing free cash flow, it is very likely for AIA to distribute annual non-guaranteed dividends as well as maturity dividends in the future as stated in its

insurance policy.

3.1.2 AXA

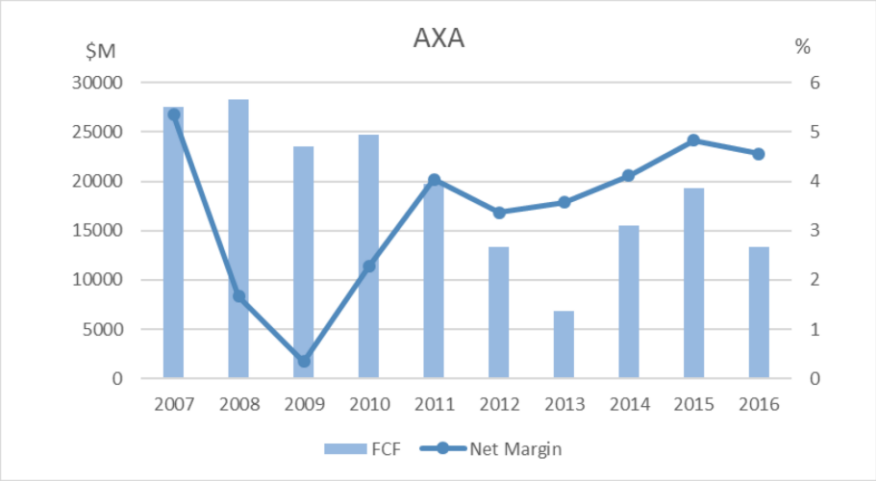

Figure 13. AXA profitability condition

As shown in the chart above, net margin of AXA is relatively stable around 4% from 2007 to 2016. While a sudden drop of AXA's net margin during 2008 and 2009 reveals the fact that its business can be affected a lot by economic environment, AXA recovered from this crisis in a short time. Additionally, AXA always keeps its free cash flow at a relatively high level, which reduces its insolvency risk.

As a conclusion, the non-guaranteed dividends are likely to be distributed in the future. However, payments of non-guaranteed dividends might be influenced by the economic condition. And if the free cash flow keeps dropping in the future, AXA's ability to pay non-guaranteed dividends can be decreased.

3.1.3 Prudential

The figure above shows that net margin of Prudential was unstable over the past years. It is difficult to summarize the specific pattern of Prudential's net margin based on the historical data. However, a slight drop of its net margin as well as free cash flow has been shown recently. Therefore, distribution of non-guaranteed dividends of Prudential is difficult to predict.

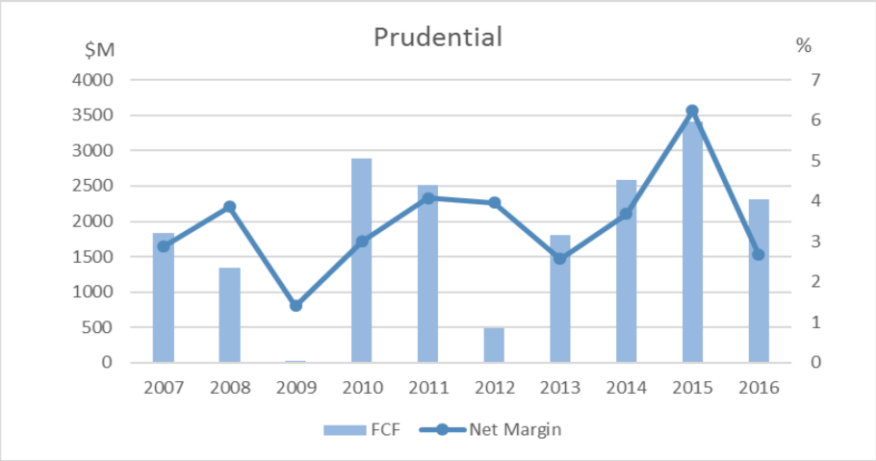

Figure 14. Prudential profitability condition

3.1.4 Manulife

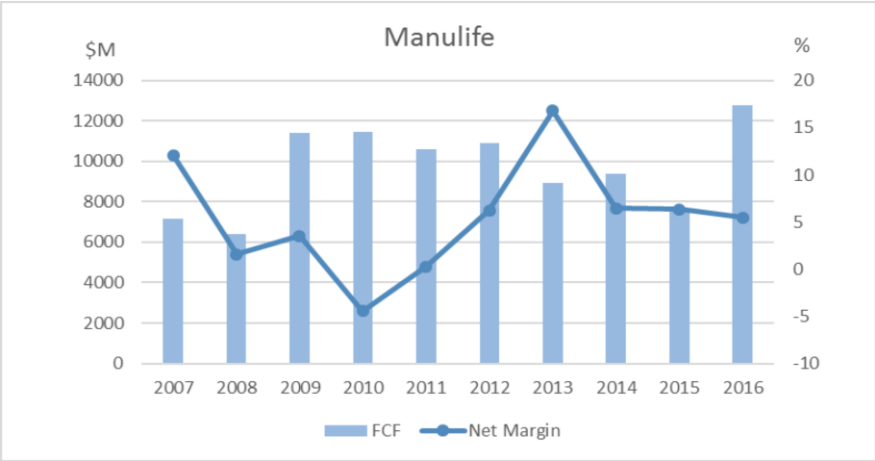

Figure 15. Manulife profitability condition

According to the data, net margin of Manulife has an overall trend of decreasing with an overall growth of its free cash flow. Additionally, significant impact of outside economic environment has also been revealed by a sudden drop of net margin in 2008 and 2009, which cost Manulife several years to recover.

Unless Manulife can keep its net margin and free cash flow at an acceptable level, payments of non-guaranteed dividends cannot be assured.

3.2 Comparison of net margin and free cash flow

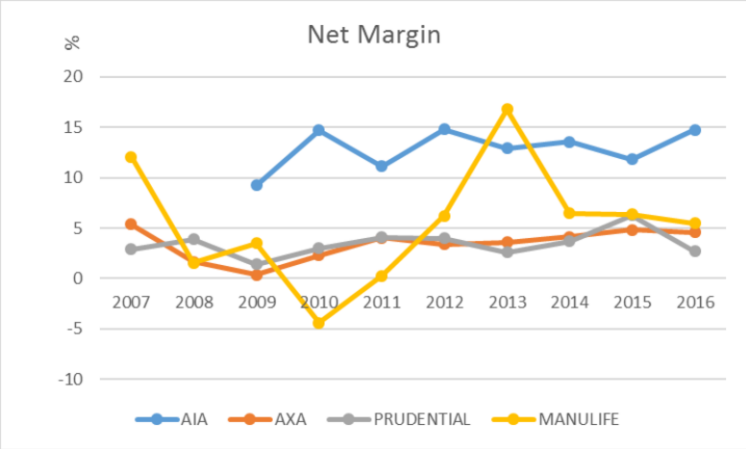

Figure 16. Net margin comparison

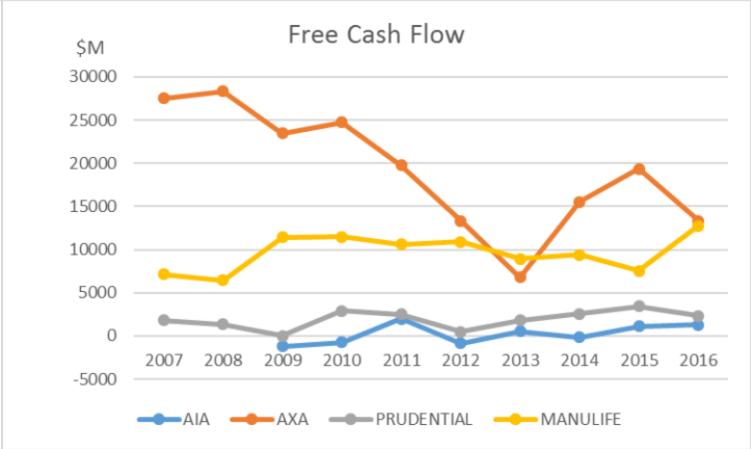

Figure 17. Free cash flow comparison

The figures above show the net margin and free cash flow of these four companies respectively from 2007 to 2016. It is easy to conclude that AIA has a highest net margin with a trend of stable growth compared with other three companies. On the other hand, AXA has the largest free cash flow in absolute term among the four companies.

In conclusion, AIA and AXA might have a higher capacity to pay non-guaranteed dividends compared to Prudential and Manulife.

3.3 Default risk comparison

Another important factor that should be considered by the insureds is the default risk of each insurance company. This part of the report will cover comparison of default risk among these 5 companies using their credit rating by 3 leading rating agencies—S&P, Moody's and Fitch.

According to the chart above, while all these 5 companies have a credit rating higher than or equal to upper medium grade, which indicates relatively negligible default risks of these companies, AIA outperforms other 4 companies in credit rating, making it the most desirable option to choose in terms of default risk.

Company	S&P	Moody's	Fitch
AIA	AA-	Aa3	N/A
AXA	A+	Aa3	AA-
BOC life	A+	Aa3	A
Manulife	AA-	A1	AA-
Prudential	A	A3	A-

Figure 18. Rating comparison

4 Coverage Comparison

Broadly speaking, the five policies are similar in terms of their general coverage. However, differences could still be observed and the decision is dependent on the personal preference and background of the policyholder.

This section is aimed at differentiating the policies in terms of coverage details.

4.1 General coverage

Detailed coverage table is listed in Appendix I.

Company	Diseases Coverage	Coverage	Premium	Payment Period
BOC	43	128,000	4821	20
AXA	66	128,000+44800[2]	4230	20
AIA	58	128,000	4490	18
Manulife	60	128,000	5360	20
Prudential	541	128000+44,800[3]	4879	20

Figure 19. Coverage condition comparison

1: Coverage in which Mr. Chan cannot enjoy due to age factor are excluded.
2: Extra 35% coverage benefit before the 10th policy anniversary.
3: Add-on value $44,800 comes from Free 10-year crisis cover.

The disease coverage of these companies varies. The maximum number of disease covered comes from AXA and the minimum comes from BOC. AXA provides extra coverage on certain diseases

that are exclusive from its company, for instance, amputation of feet due to complication from diabetes. In the meantime, exclusive diseases coverage provision also comes from other companies. For example, HIV from assault is exclusively provided only by Manulife.

Despite the fact that common critical illnesses like cancer are covered in most of the policies, there are some differences in the coverage for rare diseases. Thus the optimal choice is dependent on Mr. Chan's personal background, for instance, living habit and working environment, which will increase the probability of some particular illnesses.

Apart from disease coverage, the critical illness amount is also different. For AXA and prudential, extra benefits are included. Smart Medimoney from AXA will provide supplement cash benefit when the insured is confined in a hospital due to disability. The add-on benefits are advantages for AXA and Prudential, nonetheless, the opting for these add-ons are dependent on the background of the insured, such as job nature and family financial source.

4.2 Details comparison

The table below shows some of the details of claiming policies.

Company	Major diseases	Minor diseases	Death benefit	Number of claim
BOC	128,000	20000	128,000 + div.	1
AXA	128,000 + bonus	25600	128,000 + bonus	3
AIA	128,000	64000	128000	1
Manulife	128,000	/	128000	upon 100% coverage
Prudential	128,000 + bonus	/	128,000 + bonus	upon 100% coverage

Figure 20. Detail comparison

Despite that the coverage is 128,000 for all policies, there are small differences between them in terms of detail of claims.

For major diseases and death benefit, AXA and Prudential provide bonus amount above 128,000, for instance, 20%. BOC provides accumulated dividend for death benefit. For minor diseases, the

maximum compensation differs greatly among companies, ranging from 20,000 to 64,000. And the number of claims allowed also differs, from 1 to unlimited upon 100% coverage ($128,000) of the policy.

Furthermore, each company offers some distinguishable extra benefits. For instance, AIA provides an extra $12,800 above face value of the policy for male cancer patients. Prudential provides a 20% amount above face value of the policy for heart attack, cancer and stroke patients. The same applies for BOC, AXA and Manulife, each carries a different special claim for the policy like the AIA & Prudential.

From the comparisons above, it is realized that all of the five insurance products share similar medical coverage and the slight difference will be discussed in the section 7 Industrial suggestions and constraints. Therefore, it can be concluded that the choice of policy based on the policy detail is subjective and situational, and depends greatly on personal background.

5 Conclusion

Each of the five policies has their own strengths in each comparison section, it could be difficult to make a composite comparison among all factors. Since the results of sensitivity analysis and coverage comparison do not give any significant advantage to a specific policy, our choice should be based on the cost analysis. Therefore, Prudential is the best choice due to the lower NPCI and SCI. Despite that the performance of Prudential in other aspects are not significantly outstanding, the weighted overall performance is still satisfactory and most suitable.

6 Industrial Suggestions and Constraints

6.1 Information disclosure

During the process of evaluation, it is found that certain constraints of information disclosure limit the effectiveness of comparison. And the lack of certain critical information also calls for standard regulations on the insurance industry, such as a standardized disclosure format. Details will be discussed in this section.

6.2 Base of annual dividend allocation

During the comparison of the policies, it is found that the principles related to the dividend distribution are not clear. It would be much better if insurance companies could disclose the details about the dividend distribution, so that policy return rate could be computed for comparison.

6.3 Release of non-guaranteed dividend

One of the difficulties encountered during the comparison is that different insurance companies adopt different format standards when releasing the information about historical dividend payments. Some companies tend to hide the information within a particular period of time. Since non-guaranteed dividend is an important component of the total dividend, it would be much easier to compare the policies with all the information related to non-guaranteed dividend released.

6.4 Coverage and definition for critical illness

It is realized that different insurance companies would have different coverages and definitions about the illness during the medical coverage comparison. Certain terms about a particular kind of illness covered in one insurance policy will not be valid in another one, even it is quite a common and general illness like cancer. This becomes critically important as the potential customer is seeking for a product on critical illness.

Since the insurance companies possess the ultimate right of explanations, especially in terms of

the definition of the illness, it could happen to the policyholders that their claims could not be accepted due to the ambiguous policy terms and conditions. Even though the terms are clearly stated in the contract, it would be rather difficult for the insured, especially those who do not have medical background, to identify and differentiate each statement on certain illness. Therefore, it is highly likely that unfair claim rejections would occur.

6.5 Regulation of uniformed disclosure

During the process of evaluation, it is recognized that the standardization of disclosure of certain information is of vital importance. For instance, it would be rather constructive for the potential customers to analyze and compare the non-guaranteed dividend payment with the data and past records, if it is possible for the insurance companies to provide them.

In fact, it is realized that it might be difficult for insurance companies to release all the relevant information about their products, since sometimes they need to hide certain information to enhance their competitiveness and reduce the cost of operation. Therefore, it is necessary for regulators to reorganize the insurance industry by uniformed regulations, not only to reduce the number of unfair rejections of claim and to ensure solvency, but also to promote the development of the entire industry.

6.6 Limiting constraints

It is realized that the choice of the policy would depend on whether Mr. Chan will die in 10 years. Therefore, it is important to get the probability of death within 10 years for Mr. Chan. Since the health condition of Mr. Chan is unknown, it is hard to predict precisely unless more information is given.

Hence, when calculating the death probability of Mr. Chan within 10 years, the Mortality table is adopted. However, it is recognized that there will be errors generated since the actual situation of

Mr. Chan cannot be fully consistent with the table which is based on a large sample. Besides, the data from the Mortality table calculated in 1981 is certainly outdated. Therefore, it would be better if a renewed table could be provided for calculation.

7 Reflection

The project has given us a comprehensive experience of tackling real life insurance policy selection. It provided a precious opportunity for us to both deepen our understanding of course materials and gain solid knowledge of real life insurance products.

More importantly, through the process, we have recognized some issues with existing insurance products. For instance, the complexity of an insurance policy is overwhelming for ordinary people with no financial background. A lot of confusion and conflicts might emerge in the claiming process due to the misunderstanding of the policy details

Apart from that, we have learnt that a similar policy from different companies can be significantly different in details. It is hence very important for us to compare clearly and consult agents before purchasing any policy. It is also very important for us to ask for clarifications of unclear details and definitions.

8 Appendix

Comparison of Medical Coverage:

Companies	AIA	AXA	BOC	Manulife	Prudential
Total Number of Diseases Covered (Major + Minor)	55 (53+2)	66 (56+10)	43 (40+3)	70 (60+10)	69 (52+17)
Number of Major Diseases Covered	55	56	40	60	52
Cancer					
Cancer	•	•	•	•	•

Heart related illness					
Cardiomyopathy	•	•	•	•	•
Heart Attack	•	•	•	•	•
Coronary Artery Disease Surgery	•	•	•	•	•
Surgery to the Aorta	•	□	•	•	•
Pulmonary Arterial Hypertension	•	•	•	•	•
Infective Endocarditis	•	•	□	•	□
Other Serious Coronary artery	•	□	□	•	□
Eisenmenger's Syndrome	□	•	□	□	□
Dissecting Aortic Aneurysm	□	•	□	□	□
Nervous system related illness					
Alzheimer	•	•	•	•	•
Apallic	•	•	•	•	•
Bacterial Meningitis	•	•	•	•	•
Coma	•	•	•	•	•
Encephalitis	•	•	•	•	•
Major Head Trauma	•	□	•	•	•
Motor	•	•	•	□	•
Multiple Sclerosis	•	•	•	•	•
Muscular Dystrophy	•	•	•	•	•
Necrotizing Fasciitis	•	•	•	□	•
Paralysis	•	•	•	•	•
Parkinson	•	•	•	•	•
Poliomyelitis	•	•	•	□	•
Stoke	•	•	•	•	•
Severe Myasthenia Gravis	•	□	□	•	□
Progressive Supranuclear Palsy	•	•	□	•	•
Hemiplegia	•	□	□	□	□
Tuberculosis Meningitis	□	•	□	□	•

Spinal Muscular Atrophy	□	•	□	•	□
Progressive Bulbar Palsy	□	•	□	•	•
Brain Damage	□	•	□	□	•
Amyotrophic Lateral Sclerosis	□	•	□	•	•
Primary Lateral Sclerosis	□	□	□	•	□
Primary Muscular Atrophy	□	□	□	•	□
Major organ related illness					
Chronic Liver	•	•	•	□	•
End Stage Lung	•	•	•	•	•
Fulminant Hepatitis	•	•	•	•	•
Kidney Failure	•	•	•	•	•
Major Organ Transplantation	•	•	•	•	•
Medullary Cystic Disease	•	•	•	•	•
Chronic Adrenal Insufficiency	•	•	□	□	□
Loss of Independent Existence	•	□	•	□	
Acute Necrohemorrhagic Pancreatitis	•	□	□	□	□
Aplastic Anemia	•	•	•	•	•
SLE with Lupus Nephritis	•	•	□	•	•
End Stage Liver	□	□	□	•	□
Systematic Scleroderma	•	•	□	•	□
Disability related illness					
Blindness	•	•	•	•	•
Loss of Hearing	•	•	•	•	•
Loss of Limbs	•	•	•	•	•
Loss of One Limb and One Eye	□	□	□	•	□
Loss of Speech	•	•	•	•	•
Total and Permanent Disability	□	□	•	•	•
Other major illnesses					•

HIV due to Blood Transfusion	•	•	•	•	•
Occupationally Acquired HIV	•	•	•	•	•
HIV due to Assault	□	□	□	•	□
Major Burns	•	•	•	•	•
Severe Rheumatoid Arthritis	•	•	•	•	•
Terminal Illness	•	•	•	•	•
Chronic Relapsing Pancreatitis	□	•	□	•	•
Severe Crohn's Disease	□	•	□	•	•
Severe Ulcerative Colitis	□	•	□	•	□
Creutzfeld-Jacob Disease	•	•	□	•	•
Haemolytic Streptococcal Gangrene	□	□	□	•	□
Amputation of Feet due to Complication from Diabetes	□	•	□	□	•
Elephantiasis	•	•	□	•	•
Pheochromocytoma	•	□	□	•	□
Ebola	•	□	□	•	•

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