ACT 471 Assignment 3

Part 2: Current State of Insurance Regulation

1. (4 points)
   1. (1 point) Briefly describe the current mandatory Ontario automobile injury compensation system

**Ans:**

Auto insurance in Ontario is mandatory and is delivered through private-sector insurers. Since it is mandatory, the government must create a marketplace where fair benefits are fairly delivered and the cost is reasonable. There are two parts in Ontario, including the No-Fault part and the Tort part, where No-Fault part benefits are provided whether or not a driver is at fault (Accident Benefits) and tort part benefits are provided by suing the at-fault driver through court action (Bodily Injury). There are 10 coverages regarding to the current mandatory Ontario automobile compensation system. They are Accident Benefits, Medical and Rehabilitation Benefits, Attendant Care Benefits, Third Party Liability, Family Protection Coverage (OPCF 44R), Uninsured Automobile Coverage, Direct Compensation-Property Damage (DC-PD), Collision, Comprehensive Coverage, and All Perils Coverage.

* 1. (1.5 points) According to the Marshall Report, explain how the Ontario automobile injury compensation system is flawed

**Ans:**

Ontario has one of the lowest levels of auto accidents and fatalities in Canada and the most expensive auto insurance premiums. The benefits are fair but they are not being delivered fairly. There are 4 reasons behind this.

The first reason is that the insurers do not aim to provide care but rather focus on controlling costs. It takes longer for the insured to recover since the quality of care might be compromised to control costs, which increases the total cost.

The second reason is that accident victims may seek to maximize their entitlement rather than address their needs. In another word, they might prefer to sue instead of getting the treatment they need because they want to get as much money as possible, which is inefficient.

The third reason is that lawyers working on contingency fees work to boost the value of claims. The fees of paying lawyers increase Ontario’s insurance premium.

The last reason is that the providers are paid for the volume of treatments, not the results. It will compromise the quality of the treatment if accident victims do not get the proper attention of providers who just make sure to turn over treating as many patients as possible.

* 1. (1.5 points) According to the Marshall Report, briefly describe 3 actions the government can take to improve the system and why they would help.

**Ans:**

* Fix the structural flaw in the system by setting up an arms-length regulator with a skills-based board. For example, replace FSCO with a more flexible and less boring regulator, FSRA, which is aiming to achieve the goal of promoting increased flexibility, innovation, and simplicity. It makes the insurance companies easier to make some changes. For example, the filing process is easier. The legislation should set broad policy goals for auto insurance in the province and give the regulator powers to enact policies and procedures. The regulator must substantially overhaul existing Regulations to make them simpler to understand and easier to apply. The regulator will need to be very much more involved and proactive in the functioning of the auto insurance marketplace than it is today.
* Change the compensation for catastrophically injured people. Adopt lifetime care for catastrophically injured persons instead of cash settlement. Cash settlement for catastrophically injured persons is sometimes very large and often does not adequately meet the needs of a catastrophically injured person. It’s also very difficult to estimate the cost. So changing the focus from cash settlement to medical care the insured required improves the health outcomes of injured persons.
* Explore more open systems of regulation including changes to allow insurers to introduce new consumer products and to compete more freely on price and service in the marketplace. It’s extremely heavily regulated in most provinces in Canada right now, including Ontario. Innovation in the Auto insurance industry and changes in insurance products should be encouraged. So it’s necessary to loosen up the regulation such that the current market is able to respond to the competition.

1. (3 points)
   1. (1 point) Identify 2 problems that Alberta and Ontario auto insurance have in common

**Ans:**

* Both provinces have the problem of high premiums. The high premiums are caused by increasing Bodily Injury costs in Alberta, specifically due to non-pecuniary awards for pain & suffering due to the tort system. In Ontario, the high premium is caused by various reasons. For example, insurers focus on controlling costs, accident victims seek to maximize claim amount, lawyers working on contingency fees work to boost the claim values and etc.
* Health outcomes of catastrophically injured victims are worse in both Alberta and Ontario. The reason is that Alberta is under the tort system and Ontario is under hybrid tort and no-fault systems. Also in Ontario, health outcomes are worse because the insurers do not aim to provide care but rather focus on controlling costs. It takes longer for the insured to recover as the quality of care might be compromised, which increases the total cost. Moreover, the providers are paid for the volume of treatments, not the results. It will compromise the quality of the treatment if accident victims do not get the proper attention of providers who just make sure to turn over treating as many patients as possible. Overall, the health outcomes of accident victims are worse in both provinces.
  1. (0.5 points) Describe a primary cause of problems in AB & ON auto insurance

**Ans:** Tort systems and hybrid tort/no-fault systems is a primary cause of problems in AB & ON auto insurance. The focus of the systems is on the amount of money that is easier to be paid or received instead of the quality of medical care.

* 1. (0.5 points) Identify a similarity in recommendations to address these problems in AB & ON auto insurance

**Ans:** Replacing existing tort systems or hybrid tort or no-fault systems with pure no-fault care and compensation systems will address these problems in AB & ON auto insurance. The advantage of the no-fault system is that the benefits can be delivered without proving who is at fault before the insured receives the treatment. It helps reduce the delay of medical care, lawyer contingency fees, and additional costs related to bodily injury. It makes the insured focus more on medical care. Overall, the costs to the whole industry go down.

* 1. (1 point) Identify a difference in recommendations to address these problems in AB & ON auto insurance

**Ans:**

In Alberta, it’s necessary to introduce a “continuum of care model” to promote appropriate medical evaluation, assessment, and treatment, which improves the health outcome of accident victims. In Ontario, the government is encouraged to change the compensation for catastrophically injured persons. Adopt lifetime care for catastrophically injured persons instead of cash settlement. Cash settlement for catastrophically injured persons is sometimes very large and often does not adequately meet the needs of a catastrophically injured person. It’s also very difficult to estimate the cost. So changing the focus from cash settlement to medical care the insured required improves the health outcomes of injured persons. The government is also encouraged to be involved to fix the structural flaw in the system by setting up an arms-length regulator with a skills-based board.

1. (1 points) Briefly explain the concept of adverse selection.

**Ans**:  Adverse selection refers to situations in which an insurance company extends insurance coverage to people whose actual risk is substantially higher than the risk known by the insurance company because the potential loss risk has not been disclosed. The insurance company suffers adverse effects probably due to improper risk classification and charging each group an equitable rate.

1. (4 points) A Canadian auto insurance regulator in a highly competitive jurisdiction is considering a proposal by a Consortium of insurance companies and dental practitioners to use a *driver's number of dental visits in the past 12 months* as an automobile insurance rating variable. The Consortium has conducted a multivariate statistical analysis of empirical claims data to justify their proposal this analysis found the following statistically significant result each additional visit to the dentist in the past 12 months lowers the expected automobile insurance claims off the driver by 20%, all other variables held equal. The regulator has recently heard the testimony of Jeff Kucera at the NAIC public hearing of credit-based Insurance scores about the use of credit- based Insurance scores in rating. The regulator works closely with the NAIC and would like to ensure that number of dental visits in the past 12 months is evaluated relative to the arguments presented in this testimony
   1. (3 points) Evaluate using of the *number of dental visits in the past 12 months* as a fair and valid automobile insurance rating criterion.

**Ans:**

* Statistical Criteria: studies have found the relationship between the number of dental visits in the past 12 months and the value of expected automobile insurance claims to be statistically significant. The analysis indicates should use as a rating variable since there is a statistical relationship between insurance claims and the number of dental visits in the past 12 months. Expected costs for the individual risks within a class of the number of dental visits in the past 12 months are reasonably similar.
* Operational Criteria: the class of the number of dental visits in the past 12 months is measurable and clearly defined, which makes it objective. Levels are mutually exclusive and exhaustive. It’s inexpensive to collect the information. It’s also easy to obtain and verify.
* Social Criteria: it has unfairly discriminatory to certain groups such as poor families and immigrants. People in these groups may not get many opportunities to visit dentists even if they are careful in driving. Causality is not intuitive. However, it’s not difficult for the insured to control the number of dental visits to affect their insurance premium. It can be intrusive because it requires informed consent to obtain information on the number of dental visits.
* Legal Criteria: In Ontario, the number of dental visits might not be permitted as part of a risk classification for auto insurance
* Other considerations: accuracy could be impaired by identity. The insured who have frequent dental visits often pay small claims out-of-pocket, so their true costs may be understated. Improvements or deteriorations in economic conditions such as unemployment can lead to shifts in the distribution of dental visits and unwarranted premium rises.
  1. (1 point) The regulator elects to approve this rating variable. 5 years later a new study recognizes that a gradual increase in Dental fees has led to a 10% overall reduction in annual Dental visits across the driving population. Defend the regulator's decision to maintain *number of dental visits in the past 12 months* as an approved rating variable in light of this new study.

**Ans:**

The number of dental visits in the past 12 months is just one of the multiple rating factors. So Insurance companies' other criteria could lessen the effects of this decrease in dental visits and the overall impact would have been minor. Moreover, the number of dentist visits as a whole could result in an increase in overall premiums, but the expected total insurance cost might remain the same. Assume the total premium is sufficient. The insurer may adjust the total premium by off balance factor. Off-balance adjustment can ensure that the individual premium is unaffected if changes in the number of visits are uniform across individuals.

1. (3 points) A federally licensed Canadian insurer is replacing its current Appointed Actuary. The following information is available:

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| --- | --- | --- |
| Candidate | Designation | Information available about Candidate |
| A | ACIA | Has been working as a reserving actuary for 20 years |
| B | FCIA | Has been working as a reserving actuary in the company's  subsidiary in the US for the past 10 years |
| C | FCIA | Has been working in a Canadian consulting firm and acts as  AA for 5 Canadian insurers in the past 15 years |
| D | FCIA | Has been working as CEO of the company for 3 years |
| E | FCIA | Has been working as a pricing actuary in a Canadian  consulting firm for 12 years |

* 1. (2.5 points) For each of the above candidates, briefly explain whether they are eligible to serve as the AA.

**Ans:**

A is not eligible to serve as the AA because he/she is not an FCIA, but an ACIA.

B is not eligible to serve as the AA because he/she hasn’t worked at least 3 of the last 6 years in Canada, but in the US, with at least one performing valuation work

C is eligible to serve as the AA because he/she is an FCIA and has worked at least 3 of the last 6 years in Canada with at least one performing valuation work. C has not been subject to any adverse finding by the CIA Disciplinary Tribunal and is knowledgeable/have to experience with the CIA’s Standards of Practice and any other relevant legislation/regulation.

D is not eligible to serve as the AA because he/she hasn’t worked at least 3 of the last 6 years in Canada with at least one performing valuation work, i.e., reserving work. Instead, D has been working as a CEO for the last three years not reserving an actuary.

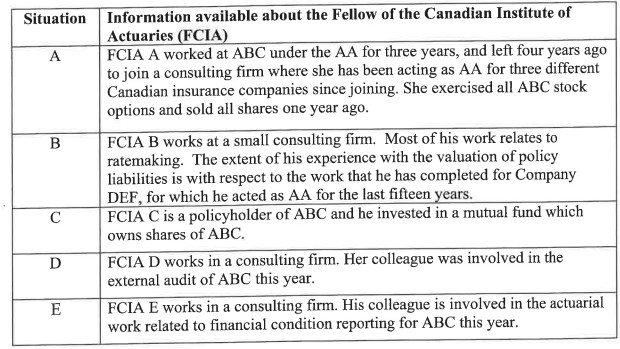
E is not eligible to serve as the AA because he/she hasn’t worked at least 3 of the last 6 years in Canada with at least one performing valuation work, i.e., reserving work. Instead, E has been working as a pricing actuary in consulting team for 12 years.

* 1. (0.5 points) Briefly describe whether an insurance company's provision for policy liabilities (shown in the Annual Return) may be different from the AA's estimated policy liabilities.

**Ans:** The AA’s report in the annual financial statement must opine that the policy liabilities are valued in accordance with the accepted actuarial practice.

1. (3 points) The following information is available:

* ABC is a federally licensed insurance company
* All actuaries are FCIAs in good standing



* 1. (2.5 points) For each of the above situations, justify whether the respective FCIA is eligible to serve as the peer reviewer of ABC’s AA Report.

**Ans:**

A is eligible to serve as the peer reviewer of ABC’s AA Report because she has the same qualifications as the ones for AA. Her prior experience includes exposure to three unrelated insurance companies. She has no relationship with the insurer or with the AA that would in any way impair objectivity. She hasn’t been employed by ABC or served as AA of ABC during the prior three years. She is not a shareholder of or has no direct financial investment in ABC.

B is not eligible to serve as the peer reviewer of ABC’s AA Report because his prior experience does not include exposure to two or more unrelated insurance companies, but one consulting firm, and one insurance company DEF.

C is not eligible to serve as the peer reviewer of ABC’s AA Report because C is a shareholder of or has a direct financial investment in ABC.

D is not eligible to serve as the peer reviewer of ABC’s AA Report because D has a relationship with ABC that would in any way impair objectivity.

E is not eligible to serve as the peer reviewer of ABC’s AA Report because E has a relationship with ABC that would in any way impair objectivity.

* 1. (0.5 marks) Identify 2 duties of the external peer reviewer

**Ans:**

* Review the AA’s work at a more granular level. Each of the assumptions used should be independently reasonable, in accordance with AAP and the methodology should be appropriate for each valuation model.
* Express an opinion on the appropriateness of the policy liabilities and provide feedback to the AA on the various aspects of their work.