

Introduction

المقدمة

Co-operative Education is a bridge between the employer, the student, and the academic institution. It benefits everyone involved. Work experience offers an excellent opportunity to see what the job entails within a 'live' commercial environment. It also provides a chance to network within the close knit, friendly actuarial professional community. From an employer's point of view, a graduate who has already taken the trouble to find work as an actuary has demonstrated a level of determination, drive and initiative that may well set him or her apart from the competition. Such experience also provides solid evidence of your ability to relate your studies to real life situations and your capacity to learn beyond the classroom

Method

الطرق المتبعة

Reserving using this method are calculated as follows:

- Cumulated paid or incurred claims are tabulated by underwriting year and calendar year.
- Development factors are calculated based on the claim's triangulation.
- The ultimate claims amounts are projected for each underwriting year using the development factors. Deduction of the paid claims leading to Outstanding Claims + IBN(E)R.

Accident Year	Development Year (Cumulative Paid Claims)				
	1	2	3	4	5
2015	7,835	12,288	16,176	19,511	21,599
2016	9,763	16,280	19,843	23,872	
2017	10,745	16,929	21,478		
2018	14,137	22,253			
2019	15,162				

Conclusions

الاستنتاجات

Actuaries look at data in a triangular format because It enables us to analyze the progression of claims over time to help estimate the IBNR and IBNER . (IBN(E)R).

This method is used widely in most insurance companies in Saudi Arabia and the world.

Objectives

الأهداف

"Loss Reserving" or "Reserving" refers to process of estimating the amount of money which should be held by an insurer so as to be able to meet all future claims arising from policies currently in-force and policies written in the past. Methods of calculating reserves in general insurance differ from those used in life insurance.

- Objectives:
- Provide an overview of commonly used basic actuarial reserving techniques:
 - Expected Loss Ratio Method
 - **Loss Development Method (Chain Ladder)**
 - Average Cost per Claim (ACPC)
 - Bornhuetter-Ferguson Method
 - Provide basic knowledge to have a more thorough review of the techniques and assumptions underlying the actuarial reserve estimates (mainly IBN(E)R).

Results

النتائج

In the above table, we have the accident year and development year of the claims. We use the Chain Ladder method to estimate the development years for the empty cells on the table. After calculating all the factors, we multiply the above triangle by the factors to fill the empty cells as shown here:

Accident Year	Development Year (Cumulative Paid Claims)				
	1	2	3	4	5
2015	7,835	12,288	16,176	19,511	21,599
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2017	10,745	16,929	21,478	25,869	28,638
2019	14,137	22,253	28,122	33,872	37,497
2019	15,162	24,181	30,559	36,807	40,746

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References

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- Estimating Unpaid Claims Using Basic Techniques by Jacqueline Friedland.
- Basic Ratemaking by Geoff Werner.

Contact Information

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مشاريع التخرج - بكالوريوس
مقرر ACTU499

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Deduction of the paid claims leading to Outstanding Claims + IBN(E)R.

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مشاريع التخرج -- بكالوريوس
مقرر ريك ٤٩٩

Final Report For The Co-op Training At
(Capital Market Authority, Market Risk Department)

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كلية العلوم

قسم الرياضيات

Introduction المقدمة

An introduction to the process of measuring and managing market risk. Market risk is the risk that arises from movements in stock prices, interest rates, exchange rates, and commodity prices. Market risk is distinguished from credit risk, which is the risk of loss from the failure of a counterparty to make a promised payment, and also from a number of other risks that organizations face, such as breakdowns in their operational procedures. In essence, market risk is the risk arising from changes in the markets to which an organization has exposure.

Method الطرق المتبعة

- Risk models, methodologies, processes
- systematic risk
- Cross-risk analytics
- Risk reporting

Conclusions الاستنتاجات

Although capital markets don't remove all risk, but we attempt to have the following :

- Measurement of exposure
- Control mechanisms for direct market risks
- Setting limits performance evaluation
- Restrict the regulations

Objectives الأهداف

- Analyze and quantify market risk
- Develop a strategy to manage market risk including setting risk appetite
- Develop appropriate policies, processes, and organization structures that links commodity/energy pricing policy overall corporate objectives to support ongoing management of market risk.

Results النتائج

- Assessment, design and implementation of market risk strategies
- Assessment, design and implementation of monitoring and reporting processes
- Assessment, design and implementation of Commodity, Energy and Financial Instrument Trading Risk Management Frameworks
- Assessment, design and implementation of Market Risk models

References المراجع

[bloomberg terminal](#)
<https://cma.org.sa/>
<https://www.tadawul.com.sa/>
<https://www.stats.gov.sa>

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