

ATLAS Pilot Course: ACT475 - Insurance Products, Market, and Regulation with AXIS (Winter 2015)

Instructor:

Vicki J. Zhang (FSA, ACIA, CERA, AcA, MS)

Office: SS 6015

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Seminars: Mondays, 6-9pm

Seminar location: SS Computing lab (SS 561), and sometimes the attached seminar/conference room

Office Hours: Tuesdays 2-4pm (from Week 2)

Teaching Assistants:

Bill (Xuancheng) Huang (xuancheng.huang@mail.utoronto.ca) – **chiefly in charge of Group A (see below)**

Jie Li (janejie.li@mail.utoronto.ca) – **chiefly in charge of Group B**

TA lab office hours at computing lab SS 561:

Fridays 1-2:30pm (from January 16th to March 13th)

Other lab hours for you to practice or complete take-home assignments:

Check SS 561 availability online: <http://lab.chass.utoronto.ca/ss.php>

Coursebook:

Zhang, V. & Ewener, J. (2014). *Uncalculated Risks: The transformation of insurance, the erosion of regulation, and the economic and social consequences*. Toronto: Canadian

Scholar Press

Available for purchase at UofT bookstore.

On course reserve at Robarts Library.

If there is any other supplementary reading, it will be posted on portal. Supplementary reading may be used to assist your understanding of the coursebook material and you do not need to write comments based on supplementary reading (see “student evaluation” below).

Student Evaluation:

1- Six 1-page (single spaced) reading comments/reflections (30%) – **Due Saturdays 6pm**

The class will be divided into 2 groups (**Group A: Last name A to Ma, and Group B: Last name Mc to Z**) for purposes of the comments (see week-to-week topics below). The comments are an opportunity to reflect upon the readings in a way that will provide a stimulus and focus for class discussion. You should not summarize the readings. Instead you should take a position or sketch an argument or indicate what you find interesting or puzzling or problematic about some part of the readings, which can be further discussed during the seminar. Every week I will provide a few topics you may want to reflect upon as you read. However, your comments need not cover every topic. You need not try to work out a detailed argument and indeed will not have the space to do so.

You must post your comments on Blackboard by **6:00 pm on the Saturday before the class in which the material is to be discussed. Late papers will not be accepted.** I will

make all papers available from that Saturday evening and you should scan all your colleagues' posted paper before coming to the seminar, so you can form an opinion or counterargument for the posted comments. You are welcome to research and consult other sources to help form your opinions but please quote your source.

2- Class participation, discussions/debates (5%, **up to 10% bonus points**)

Active and informed participation in class discussions: You will be expected to display familiarity with the assigned readings and with your colleagues' comments.

3- Five take-home AXIS assignments (25%) – **Due noon, on the Monday one week after the Monday lecture when the assignment was given. Assignments will be given during or immediately after Monday lectures. Late submissions will not be accepted.**

4- Pop-up quizzes/in-class activities related to AXIS (20%)

5- Final paper (20%): 4-6 pages (single spaced), **Due April 6th 6pm**. Submit electronically in word format.

Elaborate on a topic of your choice. The topic should be closely related to one of the seminar topics. You can reflect perspectives of multiple stakeholders but you should emphasize your personal perspective. Any tentative proposal for a future market and regulatory system is welcome. You can include any changes in your attitude and opinions on the matter before and after the course, concrete steps you plan to go forward, and further questions you would like to explore in your future studies.

Late Penalties: late papers will be penalized two points per day including weekends. No paper will be accepted after April 10th.

Schedule of Topics:

1) January 5: Welcome and Introduction

- Some questions to discuss:
 - How has your personal life (yours, your family's, or your close friends') been affected by the recent financial crisis?
 - What do you think had led to the recent financial crisis?
 - Personal stories related to the insurance industry – what do you know about the industry/product/market/regulation? Any experience to share as a consumer/policyholder, the child of someone working in the industry, an intern working for the industry, etc?
 - If you have no direct contact with the industry, what do you think is the role of the industry in our economy and society?
 - How do you imagine the relationship between the industry and its regulators – “is vs. ought to be”?
- Other business:
 - Name tags
 - Pedagogical study
- AXIS:
 - Introduction, general structure of AXIS
 - Students log-ins

- Lab hours (with TAs and without TAs)
- 2) January 12: Chapter 1. **Group A**
 - A brief and general history of financial deregulation (1970s-80s)
 - AXIS: Whole life policy modeling Part I (Regular Life Module).
- 3) January 19: Chapter 2. **Group B**
 - Implications of new economic environment and financial deregulation on the insurance industry and the industry's responses
 - AXIS: Whole life policy modeling Part II (Regular Life Module).
- 4) January 26: Chapter 3. **Group A**
 - Insurance regulators' reactions to the industry changes in product offering and asset investments
 - AXIS: Universal life policy modeling Part I (Universal Life Module).
- 5) February 2: Chapters 4 & 6. **Group B**
 - Enterprise risk management (ERM) incentives and disincentives
 - ERM technique 1: Reinsurance and "shadow (re)insurance"
 - AXIS: Universal life policy modeling Part II (Universal Life Module).
- 6) February 9: Chapters 8 & 7 (please read in this order). **Group A**
 - Common use of derivatives by the insurance industry, derivatives regulation
 - ERM technique 2: Derivative hedging
 - AXIS: Introduction to Annuities Module.
- 7) February 16: Reading week. No Class, office hour, or TA lab office hour.
- 8) February 23: Chapters 10 & 11. **Group B**
 - General modeling challenges in insurance industry
 - Market risk modeling of variable products
 - AXIS: Variable Annuity modeling (Annuities Module).
- 9) March 2: Chapter 9. **Group A**
 - ERM technique 3: Insurance Securitization
 - AXIS: Advanced topic^a 1 (tentative)

March 8 – Last day to drop courses without academic penalties

- 10) March 9: Chapters 14 & 15 & 16. **Group B**
 - Introduction on insurance regulation now and then
 - The current "rules-based" model and "principles-based" model; implication of the regulatory paradigm shift
 - AXIS: Advanced topic 2 (tentative)
- 11) March 16: Chapters 17 & 18. **Group A**

- Two case studies on challenges insurance regulators face in the process of regulatory paradigm shift: (1) asset reporting standard (“look-through reporting”) (2) liability valuation
- AXIS: Advanced topic 3 (tentative)

12) March 23: Chapter 21. **Group B**

- Two categories of limitations of technocrat-centric self-regulation
- AXIS: Advanced topic 4 (tentative)

13) March 30: Chapter 22. **Group A&B**

- Tentative proposals of change – sectoral and geographic regulation convergence? Re-establishing the sectoral “Chinese Wall”?
- Private vs. public provision of retirement protection
- Exit discussions
- AXIS: wrap-up

^a Depending on time and personnel availabilities, AXIS advanced topics may include: reinsurance, pricing by risk/rating classes, required surplus model, hedging in AXIS with a guest speaker