

NEW YORK UNIVERSITY STERN SCHOOL OF BUSINESS

FINC-UB.0081 Risk and Insurance

An examination of risk management, the insurance industry
and the financial services sector

Professors John Biggs and Samuel Liss
Fall 2014

About the Instructors:

John H Biggs, Phd and Fellow in the Society of Actuaries, and Adjunct, NYU Stern, is the former Chairman, CEO and President of TIAA-CREF (the largest annuity insurance company in the U.S.) and has served on numerous non- profit and for-profit Boards, including Boeing and JP Morgan.

Samuel G. Liss, MBA and Adjunct, NYU Stern, is the former Executive Vice President of Travelers Insurance (one of the largest business and personal lines insurance companies in the U.S.) and Managing Director of Financial Institutions banking and Equity Research at Credit Suisse. He serves on three company Boards, including businesses involved in data analytics, risk assessment and solutions, processing and insurance.

About the Course:

This course qualifies for NYU Stern undergraduate Finance Concentration, and is an excellent supplement for those in the Actuarial Concentration.

The recent financial crisis served as a powerful demonstration of failure in risk management. The insurance industry suffered far less structural damage and business model challenges than the commercial, retail and investment banking sleeves of the financial services sector. How did insurance companies fare during these years, and what roles and functions do insurance carriers play as key participants in our financial services infrastructure?

Insurance companies carry out a significant role in providing risk mitigation capabilities across the financial landscape. This industry sector is a leader in managing global investment assets and risk exposures, and accounts for some 7% of GDP, while supporting employment exceeding 5 million.

This course will introduce risk identification and the risk management process across both financial and non-financial services, leading to examination of insurance as a systematic and strategic process to pool, transfer and finance risk. We will study the private insurance industry framework, the underlying financial structure of insurance products, and explore the actuarial, financial, investment, underwriting, claims and technology issues in managing an insurance company. We will look at how the insurance industry is regulated, as well as include an introduction to some of the statutory and GAAP accounting concepts, public insurance company valuation, and the merger and acquisition process among insurance companies. We will also take a look at the various distribution channels and marketplace intermediaries who advise and sell insurance products. Given the richness of practitioners in the risk and insurance space in the greater NY area, terrific guest speakers from both the private and public sector will bring additional domain expertise to the class discussions.

In a practical vein, all Stern graduates will immediately need to know how to be smart in buying health insurance, life insurance as they start families, auto and property insurance as soon as they rent, lease or own some property, and liability coverage against large risks. It is important for all to understand the risks they and their families have and how to mitigate those risks with insurance.

The insurance industry represents a major group of employers who would be interested in NYU graduates who have had a broad course in risk management and the insurance industry. Major insurance companies based in the New York area include Metlife, TIAA-CREF, AIG, Prudential, New York Life, Guardian, Chubb, Travelers and many others.

Prerequisite: *Foundations of Finance*

The course is open to Junior/Senior undergraduates and will be additionally beneficial for students interested in exploring possible work as insurance industry professionals or advisors to the financial services sector as potential investment banking analysts, consultants, investment, financial product marketing, underwriters, actuaries, lawyers or general management professionals. It also is relevant to those aspiring to senior human resources, legal and senior management responsibilities in any company.

How the Course Will Be Taught:

Lectures, discussions, and presentations by Guest Speakers

Readings:

The main text will be *Fundamentals of Risk and Insurance* by Vaughan and Vaughan, Eleventh Edition, 2014.

Additional papers, journalistic reports and case studies will be used to generate discussions.

Grading will be based on:

1. Class attendance and active participation 20%
2. A mid- term exam 25%
3. Several brief papers (no more than two pages, typed and double- spaced), giving your analysis and views on an issue raised in readings and in class 25%
4. A final [take home] exam 30%

Class attendance and participation and professional behavior is mandatory. No late assignments will be accepted. No personal electronic devices (phones/ laptops/other) will be permitted as it creates distractions to all parties in the classroom.

The Stern Ethics Code will be strictly enforced.

Tentative Schedule

Week 1	Issues and Challenges of Risk Management
Week 2	The Insurance ‘Device’
Week 3	The Private Insurance Industry
Week 4	The Regulatory Framework
Week 5	Financial and Legal Structure(s)
Week 6	Life Insurance, Annuities and Health – Industry overview
Week 7	Deeper dive on Life- Part I
Week 8	Deeper dive on Life - Part II
Week 9	Property Casualty—Industry overview
Week 10	Property Casualty- Deep dive Part I/II- Consumer /Commercial
Week 11	Valuation and Deal making in the insurance industry
Week 12	Enterprise Risk management
Week 13	Working in the insurance industry broadly defined, weighing the opportunity set

Course Outline:

Part A: General Introduction to Risk and its Management

Week 1 Issues and Challenges of Risk Management

Overview: What are the key components of risk? Are they all measurable?

Professor Liss will cover the fundamentals of risk,. Insurable risks, managing catastrophic risks and invested asset risk. Enterprise risk, management-risk, contagion and barriers to risk management. Understanding the relationship between effective risk management and value creation

Professor Biggs will describe enterprise risk management from his experience on the audit committee of JP Morgan Chase when Jamie Dimon reorganized the risk management structure and his experience as Chair of the Boeing Audit Committee when they formalized their risk control process.

Vaughan Chapters 1 and 2 (33 pages)

Guest Speaker Ingo Walter or other Professor responsible for Stern's MS in Risk Management

Week 2 The Insurance 'Device'

What does "insurance" mean. Probability and Decision Theory, relevance of Pascal's Wager, and social security. Examples.

Biggs on theory, Liss on market failures and government's role.

Vaughan Chapters 3 and 4 (max 37 pages)

Week 3 The Private Insurance Industry

Brief History, types of companies and Federal programs, Marketing, Competitive markets, stock v. mutual organization and key attributes of public company financial statements.

Biggs and Liss

Vaughan Chapter 5 (24 pages)

Guest Speaker A Public Company CEO

Assignment_ Short Paper for completion by Class 6

Week 4 The Regulatory Framework

Regulation and Functions of Insurers. State and federal, Market failures, History, Current debate of federal vs. state, systemic insurers (Dodd Frank) , banks vs. insurers

Biggs and Liss

Vaughan Chapters 6 and 7 (47 pages)

Case study—the failure and rescue of AIG

Guest Speaker Eric Dinallo, Superintendent of New York Insurance Department during 2008-9

Week 5 Financial and Legal Structure(s)

Financial and Legal Aspects of Insurance: Accounting structure, reinsurance, Catastrophe Bonds, Taxation

Biggs and Liss

Vaughan Chapters 8 and 9 (37 pages)

Guest Speaker: Law School Professor

Part B: Traditional Insurance Product Coverage

Week 6 Life Insurance, Annuities and Health

Personal and Social Risks. Life, health disability and Social Security, Worker's Comp.

Primarily Biggs

Vaughan Chapters 10 and 11 (46 pages)

No Speaker

Mid-term exam

Week 7 Deeper dive on Life-I

Introduction to Life Insurance and the Actuarial Process. Types of contracts, uses of them, smart ways to own, decrement table, mortality, and life expectancy.

Primarily Biggs

Vaughan Chapters 12 and 14 (44 pages)

Wheeler (MetLife)

Week 8 Deeper dive on Life II

Provisions and Marketing of Life Contracts, Interesting aspects of Life Policies: cash values and other options, dividends, multi -purpose policies, universal v. standard life, benefit combinations for multiple purposes, cost of living, buy term and invest the difference, difficult cost comparisons.

Primarily Biggs

Vaughan Chapters 15, 16 and 17 (44 pages)

Speaker: A Life company marketing person, or agent, or brokerage firm

Assignment: Short Paper due by Week 10

Week 9 Property Casualty—Industry overview

Property Casualty Personal Products- Industry organization; Homeowners, Auto and the Legal environment. Complications of mortgages, auto financing, Special forms of property insurance: boats, inland marine, earthquake and flood insurance and others

Primarily Liss

Vaughan Chapters 24, 25, 26 and 29 (92 pages)

Speaker-Senior personal lines executive

Week 10 Property Casualty- Deep dive Part I

Personal Liability Coverages. Broad legal issues, exposures, types of coverage, errors and omissions, umbrella coverage, the special issues with auto insurance.

Primarily Liss

Vaughan Chapters 27, 28, 29 and 30

Speaker- Outside Lawyer perhaps from Debovoise and Plimpton

Week 11 Property Casualty- Deep dive Part II

Commercial Property and Liability Insurance. Structures of Coverage, the ISO, National flood insurance program, employee dishonesty and theft coverage, workers' compensation, professional liability D and O coverage, aircraft liability,

Primarily Liss

Vaughan Chapters 31 and 32 (58 pages)

Speaker - Officer of major insurance broker (or Boeing Director of Insurance)

Week 12 Property Casualty Deep dive III

Surety Bonds and other insurance like products. Types of bonds, including credit default swaps and other issues. Professional liabilities, pollution and other environmental

Biggs and Liss

Vaughan Chapter 33

Week 13 Deal making in the insurance industry

Private and public company valuation, capital raising, mergers and acquisitions.

Working in the insurance industry—weighing the opportunity set

Final exam