



Institute  
and Faculty  
of Actuaries

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## Actuaries as Financial Engineers: A Strategic Analysis

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## Overview

### 1) Conceptual background

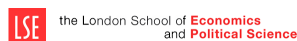
- Jurisdiction, bureaucratization and internationalisation

### 2) Historical evolution of the profession

- A couple of puzzles regarding the actuarial profession
- Periods of permissiveness and rigor in standards of governance
- Expansion of the actuarial jurisdiction into a 'wider field'.
- Why actuaries are financial engineers

### 3) What might future expansion of the profession look like if history repeated itself ?

- A simple and positive message



## Three Claims

1) A focus on financial technique is key to understanding change in the scope of the actuarial profession historically.

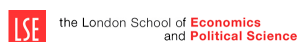
2) Greatest expansion of the actuarial profession jurisdiction was in the past associated with increased discretion in the financial aspect of actuarial work.

3) Increased discretion was driven by broad changes in the degree to which there was a focus on governance within the financial markets...

... but was also the consequence of the actions of some actuaries.

Two important caveats: 1) I am advocating sensitivity to the broad context within which this change occurred.

2) I do not have time to examine whether the consequences were in the interests of sponsors and members.



## Themes Relating to the Strategic Position of the Actuarial Profession

### 1) Jurisdiction

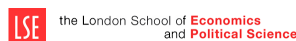
- The work that actuaries do.
- Its relationship to the work of other professions.

### 2) Bureaucratization

- The workplaces within which actuarial work is conducted
- Is the work conducted in corporations (insurance companies) in a professional service firms (consultancies)?
- A question of independence

### 3) Internationalization

- Where in the globe actuarial work is done.
- Where will future important actuarial innovations originate?



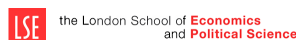
## Puzzle 1: Under What Conditions is the Actuarial Profession's Jurisdiction 'Limited'?

The actuarial profession is a dominant profession. Like lawyers and doctors, but unlike nurses, it has unimpeded control over a jurisdiction.

However, in contrast with other dominant professions which are aggressively expansionist, the actuarial profession sometimes accepts a limited jurisdiction.

The limited nature of actuarial work reflects, broadly, limitation of the actuarial expertise to expertise in the application of statistics to problems of life expectancy, classically within insurance companies.

Why does this happen when, ostensibly, only subordinated professions, such as nurses, would accept a limited jurisdiction?



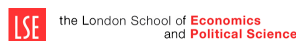
## **Puzzle 2: Why did the Bureaucratization of the Actuarial Profession Develop in Reverse to that of the Accounting Profession?**

Initially, accountants worked in professional partnerships. The trend over the past sixty years, until recently, has been for accountants to work in corporations.

Actuaries first worked in corporations (as insurance company actuaries). The trend over the past sixty years, until recently, has been for actuaries to work in professional partnerships.

Why did the bureaucratization of the actuarial profession evolve in an opposite manner from the accounting profession?

One might expect that they would develop similarly.



## **Limited Actuarial Discretion During Periods of Strict Governance**

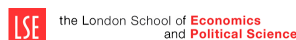
Actuarial expertise initially involved application of modelling and statistics within insurance companies.

However, this raises a question about independence. How, after all, can a profession that is subject to corporate influence exercise independence?

During periods in which standards of governance are strict, and this type of concern salient, the actuarial profession outsources the financial aspect of the work it conducts to another profession.

In the 1930s actuaries did not have discretion over the financial assumptions. When valuing pension funds, they utilized techniques developed by accountants. Investment management was conducted by other occupations.

Today, similarly, actuaries and accountants share a common framework for conducting valuations and a range of occupations exist concerned with statistical modelling of risk.

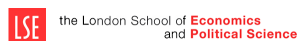


## Expansion of the Profession's Jurisdiction Post-war

In the 1950s and 1960s the context for corporate governance was permissive. In such an environment concerns regarding independent practice are reduced.

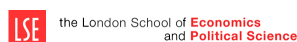
Consequently, the financial aspect of actuarial work is internalized. There is increased scope for discretion in the conduct of the financial aspect of actuarial work.

The consequence was the expansion of the actuarial jurisdiction into a wider field, namely, consulting work as a means of advising occupational pension funds, facilitating actuarial influence over investment management.



## Eras of Permissive and Rigorous Governance

	1920 - 1939	1945 - 1970	1970 - 1990	1990-2005	2005 - 2013
Governance	Strict	Permissive	Stricter	Stricter	Strict Again
Actuarial Workplace	Bureaucracies (insurance company actuaries)	Professional Partnerships (consulting actuaries)	Professional Partnerships (consulting actuaries)	Professional Partnerships (consulting actuaries)	Bureaucracies (insurance company actuaries)
Actuarial Jurisdiction	Limited	Expansive	Consolidation	Static	Static / Shrinking
Technical Actuarial Practice	No Financial Discretion	A Great Deal of Financial Discretion	Less Financial Discretion than Previously	Less Financial Discretion than Previously	No / Very Little Financial Discretion



## Conjectures

Based on the preceding analysis future growth of the profession would ...

... consist in the development of a new actuarial jurisdiction.

... be associated with technical innovation and to the extent that that consists in greater discretion, expansion will be more powerful.

Sources of such innovation might be located in countries that have undergone similar processes of loosening up to those that occurred in the UK in the mid-twentieth century.

New categories of membership are plausibly likely to be a source of ideas that could contribute to such growth.

A simple and positive message: there are large opportunities available to those maintaining openness to how context influences technical change.