Actuaries in Banking and Finance
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Banking and Finance: new fields for actuaries?

- no if one look at history
  - De Witt and others
- no if one look at countries like France
  - a long story
    - Deparcieux in 1746
    - Founders of the Cercle de Actuaires Français in 1870
    - large involvement in bond trading and bond portfolio management at the beginning of the 1970’s
French Actuaries in Banking

• Who are they?
  – mostly young people
  – attracted by the high salaries

• Why are they recruited
  – rocket scientists
  – high level of knowledge in Finance and applied mathematics
Finance and Actuarial Education

- extract of the core syllabus of the FFA
  - insurance : 105 hours of courses and 65 hours of tutorial
  - finance : 125 hours of courses and 45 hours of tutorial
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Traditional activities

• trading
  – derivatives

• portfolio management
  – bond
  – equity

• asset and liability management
### French Actuaries in Banking

Breakdown of French actuaries by profession in the finance industry

<table>
<thead>
<tr>
<th>Profession</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading</td>
<td>16%</td>
</tr>
<tr>
<td>Portfolio management</td>
<td>31%</td>
</tr>
<tr>
<td>Marketing</td>
<td>10%</td>
</tr>
<tr>
<td>Risk control</td>
<td>6%</td>
</tr>
<tr>
<td>Research</td>
<td>12%</td>
</tr>
<tr>
<td>Credit</td>
<td>8%</td>
</tr>
<tr>
<td>Data processing, organisation</td>
<td>9%</td>
</tr>
<tr>
<td>Others</td>
<td>8%</td>
</tr>
</tbody>
</table>
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Wider fields
• research & development
  – market and credit risk analysis
  – derivatives, exotic options
• data processing/organisation and methods
• risk management and control
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New Basel Capital Accord

• Market Risk: no change
  – Standardized approach, Internal VAR models

• Credit Risk:
  – Standardized approach, Internal ratings based approaches

• Operational Risk:
  – Basic Indicator approach, Standardized business line approach, Internal measurement system approach
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Role of the Actuary
Assess the risk

– Determine the distribution of gains or losses or more generally return

– Measure the dependence between the several risks incurred
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New developments

EU is reconsidering its solvency system for insurance

Question: are new banking rules relevant to the insurance sector?
Actuaries in Banking and the actuarial international organizations

• AFIR section

• Committee of Investment and Financial Risks of the Groupe Consultatif

• Committee on Financial Risks of the IAA