SAVINGS PRODUCTS AND THE LIFE INSURANCE INDUSTRY IN CANADA

Carl Hiralal 25 November 2004
Topics

• OSFI’s Role
• Canadian Industry
• Insurance Products in Canada
• Insurance versus Savings
• Segregated Funds
• Universal Life

• Investment Expertise of Insurers
• Risk Management and Corporate Governance Practices of Canadian Insurers
The Role of OSFI

- Primary regulator of Financial Institutions
- Safeguard policyholders from undue loss
- Contribute to the public confidence in a competitive system
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Federally Regulated Financial Institutions

• 305 Insurance Companies
• 145 Deposit-Taking Institutions
• 29 Foreign Bank Representative Offices
Asset Breakdown
Conglomerate Insurers
Worldwide

At June 30, 2004

• Assets Under Management $855 Billion
  – General Fund Assets $367 Billion
  – Segregated & Mutual Funds $488 Billion
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LIFE PRODUCTS EARNINGS

BALANCE SHEET

PROTECTION
INSURANCE
LIFE
HEALTH
UNIVERSAL LIFE

ON
ON
ON
ON

PROFIT MARGIN
EXPERIENCE GAINS/LOSSES
INVESTMENT INCOME

SAVINGS
DEFERRED ANNUITIES
IMMEDIATE ANNUITIES
SEGREGATED FUNDS
MUTUAL FUNDS

ON
ON
OFF
OFF

SPREAD
SPREAD
FEE INCOME
FEE INCOME
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On Balance Sheet
### Premiums – Canada only

**BREAKDOWN BY PRODUCT TYPE**

(Net of Reinsurance) - $ Billions

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2003</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNUITIES</td>
<td>21</td>
<td>45%</td>
</tr>
<tr>
<td>INSURANCE</td>
<td>26</td>
<td>55%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$47</td>
<td>100%</td>
</tr>
</tbody>
</table>
PREMIUMS - Canada only

Year

1999  2001  2003

Billions

$0  $10  $20  $30  $40  $50

Annuities  Insurance  Total
SAVINGS & INSURANCE PREMIUMS
Canada only (on balance sheet)

Year
1999 2001 2003

Deferred Annuities
Immediate Annuities
Universal Life
Other Life Insurance
Benefits of Product Mix

• Market Volatility Balance
  – Insurance versus savings products
• Mortality Balance
  – Annuities versus insurance
• Attractiveness varies with economic conditions
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Off Balance Sheet
<table>
<thead>
<tr>
<th>Protection Products</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance Sheet</strong></td>
<td></td>
</tr>
<tr>
<td>PROFIT MARGIN</td>
<td><strong>Insurance</strong></td>
</tr>
<tr>
<td>EXPERIENCE GAINS/LOSSES</td>
<td></td>
</tr>
<tr>
<td>INVESTMENT INCOME</td>
<td></td>
</tr>
<tr>
<td><strong>Savings</strong></td>
<td></td>
</tr>
<tr>
<td>SPREAD</td>
<td></td>
</tr>
<tr>
<td><strong>Deferred Annuities</strong></td>
<td><strong>Immediate Annuities</strong></td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td><strong>Segregated Funds</strong></td>
<td><strong>Mutual Funds</strong></td>
</tr>
<tr>
<td>FEE INCOME</td>
<td>FEE INCOME</td>
</tr>
</tbody>
</table>
Segregated Funds

- Off balance sheet
- Generate fee income
- Ten year capital guarantee
- TBS approach
- Modelling
- Low probability, high severity risk
- Assets off balance sheet
- Liabilities on balance sheet
### SEGREGATED FUND ASSETS HELD IN CANADA

<table>
<thead>
<tr>
<th>Year</th>
<th>Bonds</th>
<th>Stocks</th>
<th>Mutual Funds</th>
<th>Other Assets</th>
<th>Total Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>27%</td>
<td>47%</td>
<td>10%</td>
<td>16%</td>
<td>$36</td>
</tr>
<tr>
<td>1998</td>
<td>22%</td>
<td>33%</td>
<td>31%</td>
<td>14%</td>
<td>$60</td>
</tr>
<tr>
<td>2000</td>
<td>15%</td>
<td>31%</td>
<td>42%</td>
<td>12%</td>
<td>$90</td>
</tr>
<tr>
<td>2002</td>
<td>14%</td>
<td>26%</td>
<td>48%</td>
<td>12%</td>
<td>$87</td>
</tr>
</tbody>
</table>
Topics

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• **Universal Life**

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Universal Life Features

• On balance sheet
• Cost of insurance
  – Level – lapse supported
  – Yearly renewable term
• Savings element
  – Range of investment opportunities
  – Variable premium payments
    • Impact on profitability
Source of UL New Business Premium by Distribution Channel

- 60% brokers – GAs/MGAs
- 17% career agents
- 11% brokers – independent/PPGAs
- 9% national accounts
- 3% other
Universal Life Liabilities

• Large conglomerate companies

• Mid-sized companies
## Large Conglomerates-2003 Y/E

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>ACTUARIAL Liabilities CANADA only</th>
<th>ACTUARIAL Liabilities CONSOLIDATED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Billions</td>
<td>Billions</td>
</tr>
<tr>
<td>INSURANCE EXCLUDING UL</td>
<td>$38 47%</td>
<td>$80 47%</td>
</tr>
<tr>
<td>UNIVERSAL LIFE</td>
<td>3 4%</td>
<td>9 5%</td>
</tr>
<tr>
<td>SEGREGATED FUNDS</td>
<td>0.3 0%</td>
<td>1.4 1%</td>
</tr>
<tr>
<td>DEFERRED ANNUITIES</td>
<td>23 29%</td>
<td>49 29%</td>
</tr>
<tr>
<td>IMMEDIATE ANNUITIES</td>
<td>15 18%</td>
<td>26 15%</td>
</tr>
<tr>
<td>OTHER</td>
<td>1 2%</td>
<td>5 3%</td>
</tr>
<tr>
<td></td>
<td>$81</td>
<td>$171</td>
</tr>
</tbody>
</table>
# Seven Mid-sized Insurers
## 2003 Y/E

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>ACTUARIAL LIABILITIES CANADA only</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSURANCE EXCLUDING UL</td>
<td>$3,311</td>
<td>19%</td>
</tr>
<tr>
<td>UL</td>
<td>1,990</td>
<td>11%</td>
</tr>
<tr>
<td>SEGREGATED FUNDS</td>
<td>153</td>
<td>1%</td>
</tr>
<tr>
<td>DEFERRED ANNUITIES</td>
<td>8,813</td>
<td>50%</td>
</tr>
<tr>
<td>IMMEDIATE ANNUITIES</td>
<td>2,420</td>
<td>14%</td>
</tr>
<tr>
<td>OTHER</td>
<td>962</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$17,650</strong></td>
<td></td>
</tr>
</tbody>
</table>
UL Pricing Assumptions

• Funding level
  – Fee income
  – Cost of insurance

• Level of flow-through of risk
  – Equity or linked investment
  – Minimum guaranteed renewal rate
Investment Management
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Asset Management Expertise

• Manage medium and long-term assets
• Skills relate to cash flow and duration matching
• Expert in fixed income assets
• Control interest rate risk
  – Robust ALM techniques
  – Credit risk analysis
• Insurers manage business conservatively
Asset Management Expertise (cont’d)

• ALM methodology unique to life insurance companies
• Little equity risk
• Stochastic cash flow analysis
  – More sophisticated understanding
  – Quantify risks
Effective Use of Cash Flow
Differences Between Products

INTERSEGMENT NOTES

• Enhance cash flow management
• Make efficient use of cash flows between lines
  – e.g., deferred and immediate annuities
• Transfer spread from one line
• Maximum use based on capital
• Fully documented policy
• Surplus not used
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Savings Products - Risks

- Asset defaults
- Cash flow mismatch
- Interest rate volatility
- Market volatility
- DAC recoverability
- Persistency
- Management fee decline
Risk Management

- Asset liability management
- Corporate governance
- TBS for segregated funds
- Product design and pricing
- Variable MERs
- CALM valuation methodology
- Reinsurance
Corporate Governance

- ALCO
- Quality of assets
- Risk management committee
- Expertise with managing savings products
Insurance vs. Banks

- Longer term assets
- Liabilities longer term than assets
- Major assets: bonds
- Assets & liabilities equally important
- Explicit provision for each type of risk

- Shorter term assets
- Liabilities shorter term than assets
- Major assets: loans
- Focus mainly on assets
- Reliance on spread as implicit coverage of risks
Attractiveness to Customer

• Consumer protection
• Privacy
• Tax deferral
• Higher yield than banks
• Flexibility, choice and features
• Guarantees – interest, capital, mortality
• Easy move from deferred to vested annuity