ALM with ultra-low interest rates
- (Life) Insurance Perspective

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11 March 2015
Agenda

• The European Insurance Industry Risk Framework
• The (Italian) life Insurance Industry case
• Main challenges and new business perspectives
Almost three quarters of individual premiums related to traditional life products, which offer capital and/or return guarantees, while the remaining individual life premium income stemmed mainly from unit-linked products, in which the risk is borne by the policyholder.
The European Insurance Industry Risk Framework (2/7)

Key facts

![Graphs showing life insurance premiums and mathematical provisions as a percentage of GDP for various countries over the years 2011, 2012, and 2013.](image-url)
• “The risk from the low interest rate environment continues to be the major risk factor, both for insurance and pension companies alike”

(EIOPA Risk Assessment*, Dec. ‘14)
Guaranteed rates have tended to decrease in the period 2009-2013 in order to adapt the new business to a low yield environment.

How to cope with these risks without failing commitment with policyholders and maintaining competitiveness?
As a follow up of its “Opinion on Supervisory Response to a Prolonged Low Interest Rate Environment*” it was agreed that EIOPA would carry out a stocktaking exercise in 2014 in order to test sustainability of the financial guarantees embedded in life products.

**Low Yield Stress Test Module**

**Inverse scenario**

**Japanese-like scenario**
Test the effects of a prolonged period of low interest rates on European (life) insurance companies

- SCR ratio: Eligible Own Funds (post stress)/SCR (pre stress)
- Exposure on interest rates (durations, cash flow matching);
- Profitability (IRR)

(*) 28 February 2013
MCEV/EV sensitivity to a decline of 100 basis point

Table 3: MCEV/EEV sensitivities to a decline in interest rates by 100 basis points

<table>
<thead>
<tr>
<th>Region</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central and northern Europe</td>
<td>-10.7%</td>
<td>-12.7%</td>
<td>-56.1%</td>
</tr>
<tr>
<td>Japan</td>
<td>-11.7%</td>
<td>-10.7%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Southern Europe and France</td>
<td>-5.2%</td>
<td>-3.9%</td>
<td>-7.9%</td>
</tr>
<tr>
<td>UK</td>
<td>1.2%</td>
<td>1.1%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Reinsurance</td>
<td>0.2%</td>
<td>0.7%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

1 Aegon, Ageas, Allianz, Delta Lloyds, Eureko/Achmea, Munich Re (primary life insurance book), SNS REAAL, Storebrand, Swiss Life, UNIQA, Vienna, Zurich
2 Sony Life, Hitawari Life
3 AXA, CNP, Generali, Mediolanum
4 Aviva, Old Mutual, Phoenix, Resolution, SJP, Standard Life
5 Hannover Re, Munich Re (life reinsurance only), SCOR

Source: company MCEV/EEV reports for 2009 to 2011
The European Insurance Industry Risk Framework  (7/7)

EIOPA (Low Yield) Stress Test exercise

Global Stress Test result

- The European insurance industry is in general sufficiently capitalized in Solvency II terms
- The Italian insurance industry shows a «Japanese-like scenario» level of capitalization slightly better than the European average

<table>
<thead>
<tr>
<th>«Japanese-like» scenario</th>
<th>Europe</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR ratio ≥ 100%</td>
<td>76%</td>
<td>83%</td>
</tr>
<tr>
<td>SCR ratio &lt; 100%</td>
<td>24%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Sample: 6 individual undertakings
The Italian (life) Insurance Industry case
The Italian (life) Insurance Industry case

**Overall Life Industry trend**

- Insurance policies represent almost 12% of total financial assets of Italian households

Table 2 – Financial assets of Italian households

<table>
<thead>
<tr>
<th>INSTRUMENTS</th>
<th>YEAR-END STOCKS (Euro million) 2013</th>
<th>YEAR-END STOCKS/ TOTAL ASSETS %</th>
<th>FLOWS (Euro million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank instruments (**)</td>
<td>1,047,346</td>
<td>27.0</td>
<td>26.9</td>
</tr>
<tr>
<td>Italian</td>
<td>1,016,945</td>
<td>26.2</td>
<td>26.1</td>
</tr>
<tr>
<td>sight deposits</td>
<td>500,444</td>
<td>12.8</td>
<td>12.8</td>
</tr>
<tr>
<td>other deposits</td>
<td>316,601</td>
<td>13.4</td>
<td>13.3</td>
</tr>
<tr>
<td>Foreign</td>
<td>30,401</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Securities</td>
<td>624,998</td>
<td>18.6</td>
<td>16.0</td>
</tr>
<tr>
<td>Italian</td>
<td>511,180</td>
<td>15.2</td>
<td>13.1</td>
</tr>
<tr>
<td>of which: government</td>
<td>184,423</td>
<td>5.4</td>
<td>4.7</td>
</tr>
<tr>
<td>bank</td>
<td>326,454</td>
<td>9.6</td>
<td>8.4</td>
</tr>
<tr>
<td>Foreign</td>
<td>113,809</td>
<td>3.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Invest’s funds</td>
<td>309,093</td>
<td>7.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Italian</td>
<td>161,076</td>
<td>4.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Foreign</td>
<td>147,015</td>
<td>3.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Shares and equity</td>
<td>916,371</td>
<td>22.1</td>
<td>23.5</td>
</tr>
<tr>
<td>Italian</td>
<td>873,216</td>
<td>21.2</td>
<td>22.4</td>
</tr>
<tr>
<td>Foreign</td>
<td>43,155</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Insurance, pension and sovereign</td>
<td>726,842</td>
<td>18.2</td>
<td>18.7</td>
</tr>
<tr>
<td>of which: reserves of the the sector</td>
<td>457,143</td>
<td>11.2</td>
<td>11.7</td>
</tr>
<tr>
<td>Other assets</td>
<td>273,157</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Total assets</td>
<td>3,896,796</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term debts</td>
<td>58,739</td>
<td>6.4</td>
<td>6.4</td>
</tr>
<tr>
<td>of which: bank</td>
<td>57,398</td>
<td>6.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Medium- and long-term debts</td>
<td>639,474</td>
<td>69.7</td>
<td>69.4</td>
</tr>
<tr>
<td>of which: bank</td>
<td>544,950</td>
<td>59.2</td>
<td>59.2</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>223,524</td>
<td>23.8</td>
<td>24.2</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>2,921,261</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>BALANCE</strong></td>
<td>2,975,535</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

(*) Includes deposits of the Cassa Depositi e Prestiti
Source: Based on Banca d'Italia, Conti finanziari

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The Italian (life) Insurance Industry case

Overall Life Industry trend

- In Italy risks due to prolonged low interest rates are perceived to be lower than in other European countries.
- This is mainly due to specific product features and prudent asset allocation.
Main Drivers – competitiveness of segregated funds

- In Italy, interest rate sensitive life insurance business includes with-profits endowment and whole life policies (polizze rivalutabili), most of which are single premium business
  - The maximum guarantee is fixed at 60% of the average Italian 10-year government bond yield.
  - The maximum guarantee level has generally been in the last 2 years between 0 and 1% with cliquet mechanism, where the guarantee is paid out at maturity instead of annually.
  - Rates of return are computed on the basis of book value and realized value. In particular, the return is calculated annually as the ratio of the sum of coupons, dividends and realized capital gains to the average stock of fund assets, and is allocated, in whole or in part, to the accrued value of the contractual benefits.
  - Surrender charges vary by company, but generally decrease with the duration of the contract. However, there is no adjustment for market value of the assets backing these policies.
The Italian (life) Insurance Industry case

Main Drivers – competitiveness of segregated funds

- Over the years the share of life policies whose end-of-contract value is guaranteed has progressively grown – thanks to the increase in sales of Class I and V policies
- These products are more attractive when Government Bonds yields are low and/or decreasing

Source: ANIA, Datastream
Main Drivers – competitiveness of segregated funds

- Italian segregated funds allow:
  - to manage in an efficient way the minimum return guarantees through a conservative asset allocation
The Italian (life) Insurance Industry case

Main Drivers – competitiveness of segregated funds

- Italian segregated funds allow:
  - to get limited but stable returns

![Graph showing comparison of various financial indicators.](image-url)
Main Drivers – competitiveness of segregated funds

- Italian segregated funds allow:
  - to reduce return volatility to a minimum
Main Drivers – shift toward linked-type products (Class III)

- Some companies started to focus on products with no guarantees or less dependent on investment income.
- Nearly 1/3 of the new business in 2014 is represented by dynamic hybrid products, which are innovative life insurance contracts combining features of traditional participating life insurance with those of unit-linked policies.
Main challenges and new business perspectives
Main Challenges

Three Scenarios (adapted from Sigma, 2012)

1) **A gradual rise of interest rate.** The European economy recovers gradually thanks to national reforms and QE. Actual inflation and inflation expectations increase moderately toward 2%. We observe a gradual increase in both nominal and real interest rates.

2) **A prolonged period of ultra-low interest rate** QE is ineffective because overly leveraged banks and consumers opt to reduce debt rather than lending or spending it, preventing the economy from overheating. As a consequence, long-term government bond yields remain close to their current levels for the next ten years.

3) **An inflation-driven surge in interest rates,** CBs and in particular ECB react too slowly to prevent a rapid rise in inflation. Increasing inflation expectations lead to a sharp rise in nominal bond yields.
Main Challenges

• I strongly believe that scenario 1 is the most likely .... It is also the most favorable for insurers

• Scenario 3 appears - at the moment - to be very unlikely in 2-3 years
  – but never forget that “this time is different” is never true in the long run

• EIOPA seems to be mainly concerned by scenario 2
  – “A continuation of current low yield conditions could see some insurers exposed to this risk having problems in meeting promises to policyholders in 8-11 years” (EIOPA Stress Test Report, Nov. ‘14)
New business perspectives

**The Japanese experience**

- Japan experienced a prolonged period of low interest rates that led to a number of insolvencies and prompted the industry to find new ways to cope with the situation.

- Japanese insurance industry shifted the focus away from traditional endowment products towards protection products, searching for an optimal mix between savings and protection products.

- Even if a (Japanese) scenario 2 doesn’t materialize, it is worth for European insurers trying to strike the right balance between savings and protection, with a fast growing emphasis on the latter.

- Demographic reasons and budget constraints for Governments urge insurer to refine the supply of protection products
New business perspectives  
*Potential solutions*

How to reallocate assets and new premiums in order to make minimum financial guarantees sustainable in a prolonged low interest rate scenario?

- **Restructuring of financial guarantees embedded in with-profit products**
- **Pushing of linked- or hybrid-type products**
- **Asset reallocation: corporate and structured bonds**

- **New product features based on consumers’ life-cycle needs and macroeconomic scenario**

Consistent with the Japan experience
New business perspectives

Potential solutions

- Married life
  Parenthood protection gap
- Start work
  Income protection gap
- Wealth management gap
- Retirement
  Decrease of assets gap
- Longevity gap

New product features based on consumers’ life-cycle needs
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