THE IMPORTANCE OF INSURANCE FOR DISASTER RISK REDUCTION POLICIES: LESSONS FROM THE CRISIS

Paolo Garonna, Director General, Association of Italian Insurers (ANIA)

Event on Disaster Risk Reduction in South Eastern Europe

Roma, 8th March 2011
CONTENTS

• THE CONTEXT:
  - THE EVOLUTION OF NATURAL CATASTROPHES WORLDWIDE
  - FINANCIAL CRISIS IN EUROPE AND EXIT STRATEGIES

• ROLE OF INSURANCE: THE NEED FOR A PUBLIC-PRIVATE COOPERATION TO COVER NATURAL DISASTER RISKS;

• THE ITALIAN EXPERIENCE;

• EUROPE’S ROLE
EVOLUTION OF NATURAL CATASTROPHEs ……

**Number of events 1970-2009 world-wide**

**Numbers of victims 1970-2009 around the world**

*Fonte: Swissre*
World trend for damages caused by natural catastrophes has grown steadily. Consequently compensations for insured damages against such events have increased.

There is a growing awareness of risk and the need to plan financial resources to face such losses.
MACROECONOMIC PERSPECTIVES AND THE PROBLEM OF GROWTH: EUROPE VS EMERGING ECONOMIES

In 2010 and in the first months of 2011 we have witnessed the ongoing recovery of the world economy, with stronger accelerations in the US and in the emerging market economies. Europe as well has recorded an uptrend in economic growth, albeit lower than elsewhere since mid-2009.

- The economic recovery is closely linked to expansionary policies in the fiscal and monetary fields;
- The pace of the recovery seems to be still modest and irregular, due to the strong uncertainty characterizing some industrial sectors.

<table>
<thead>
<tr>
<th>The GDP evolution according to IMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
</tr>
<tr>
<td>Industrialised countries</td>
</tr>
<tr>
<td>USA</td>
</tr>
<tr>
<td>Euro area</td>
</tr>
<tr>
<td>Emerging countries</td>
</tr>
<tr>
<td>International trade</td>
</tr>
<tr>
<td>Oil price</td>
</tr>
</tbody>
</table>

% variation compared to the previous year.
Source: IMF World Economic Outlook. January 2011
MACROECONOMIC PERSPECTIVES: THE BURDEN OF PUBLIC DEBT

This context increases the difficulty to put aside resources so as to cover damages from natural catastrophes.

Font: Prometeia, January 2011
(*): Forecasts

<table>
<thead>
<tr>
<th>Deficit of the public sector in % of GDP</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011*</th>
<th>2012*</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>6.5</td>
<td>11.1</td>
<td>10.3</td>
<td>12.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Japan</td>
<td>2.7</td>
<td>10.6</td>
<td>9.0</td>
<td>7.8</td>
<td>6.4</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>3.3</td>
<td>3.6</td>
<td>2.6</td>
<td>1.7</td>
</tr>
<tr>
<td>France</td>
<td>3.4</td>
<td>7.5</td>
<td>7.7</td>
<td>6.5</td>
<td>5.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5</td>
<td>12.7</td>
<td>10.1</td>
<td>7.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Italy</td>
<td>2.7</td>
<td>5.3</td>
<td>5.0</td>
<td>4.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Spain</td>
<td>4.1</td>
<td>11.4</td>
<td>9.6</td>
<td>8.5</td>
<td>7.3</td>
</tr>
<tr>
<td>EMU (16 countries)</td>
<td>2</td>
<td>6.2</td>
<td>6.8</td>
<td>5.9</td>
<td>5.1</td>
</tr>
</tbody>
</table>
CONTENTS

• THE CONTEXT:
  - THE EVOLUTION OF NATURAL CATASTROPHES WORLDWIDE
  - FINANCIAL CRISIS IN EUROPE AND EXIT STRATEGIES

• ROLE OF INSURANCE: THE NEED FOR A PUBLIC-PRIVATE COOPERATION TO COVER NATURAL DISASTER RISKS;

• THE ITALIAN EXPERIENCE;

• EUROPE’S ROLE
THE POLICY RESPONSE

• The role of **Civil Protection** is growing

• The role of **international cooperation** is growing  (*Hyogo Framework For Action 2005-2015*)

• The role of **insurance** is growing

• Programs for **preparedness, prevention and resource planning** are growing

• **Public spending** is growing

---

**Focus ITALY**

The earthquake which struck the Abruzzo region caused damages for about 2-3 billion euros for dwellings only, around 300 million only of which will be financed by insurance companies. **Natural catastrophes cost on average 0.2% of GDP per year**

Fonte: Swissre, year 2009
## The Contribution of Insurance Programs to Disaster Risk Reduction

<table>
<thead>
<tr>
<th>Improvement areas</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Effective use of resources</td>
<td>An insurance plan for damages to dwellings allows a more efficient allocation of resources for emergency interventions.</td>
</tr>
<tr>
<td>2 Short timetable</td>
<td>Intervention timetable would become certain and be short-term</td>
</tr>
<tr>
<td>3 Amount of compensation</td>
<td>The amount of compensation is fixed a priori.</td>
</tr>
<tr>
<td>4 Low costs</td>
<td>If resources are put aside through insurance, they will be invested in productive activities whose yield would curb costs for individuals (this mechanism is typical of private insurance)</td>
</tr>
</tbody>
</table>

A defined program for natural catastrophe risk management encourages to develop prevention, risk mitigation measures. Prevention is the essential leverage to reduce the impact of natural catastrophes.
## COVER OF NATCAT LOSSES IN EUROPE

<table>
<thead>
<tr>
<th>Country</th>
<th>Risks</th>
<th>Insurance penetration rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Flood</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Earthquake</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Storm</td>
<td>75%</td>
</tr>
<tr>
<td>France</td>
<td>All natural disasters</td>
<td>97%</td>
</tr>
<tr>
<td>Germany</td>
<td>Flood</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>Earthquake</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>Storm</td>
<td>85%</td>
</tr>
</tbody>
</table>
| Italy       | All natural disaster      | Only 0.4% of fire insurance policies for dwellings have the extension to earthquake cover.
## INSURANCE SOLUTIONS ADOPTED IN SOME COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>System type</th>
<th>Brief description</th>
</tr>
</thead>
</table>
| France           | Semi-compulsory | **Private sector:** fire insurance policies with compulsory extensions to natcat risks.  
**State:** Plays the role of last resort reinsurer and declares the state of calamity. |
| Belgium          | Semi-compulsory | **Private sector:** fire insurance policies with compulsory extensions to natcat risks.  
**State:** Plays the role of last resort reinsurer with a limited capacity. If damages exceed the fixed limits, compensations are reduced proportionally. |
| United Kingdom   | Voluntary     | **Private sector:** property insurance policies cover not only ordinary risks (fire, theft..), but also natcat risks. The policy is ceded 100% to a Consortium.  
**State:** the system is totally private and voluntary. There is no State intervention |
LIMITS OF A VOLUNTARY INSURANCE APPROACH

Critical aspects of the voluntary insurance

- Adverse selection
- Attainment of critical mass

Possible solutions

Compulsory insurance

The introduction of a compulsory insurance allows to attain a critical mass avoiding a strong adverse selection which would render it unfeasible.

Semi-compulsory (Extension of fire insurance)

Can be adopted mostly in countries where there is a high spreading of fire insurance (e.g. France). In Italy at the moment only 40% of dwellings are covered by fire insurance.

For Countries where the spreading of insurance cover is low
THE GOVERNMENT AS LAST RESORT REINSURER

For damages exceeding the insurance capacity of national and international markets State intervention is needed as last resort reinsurer (also through a public company), upon payment of a reinsurance premium.

Insurance cover capacity of the system

State intervention as reinsurer to provide the private market with further capacity

The private insurance and reinsurance system has a certain capacity (maximum compensation possible), which is high but nevertheless limited.
FISCAL INCENTIVES AND POSSIBLE INVOLVEMENT OF LOCAL BODIES

- Given the social usefulness of the cover for natural catastrophe risk, an exemption of taxes and fiscal deductibility of premiums should be envisaged.

- Local bodies can play an active role in catastrophe risk prevention by setting up initiatives of safety measures of territory, thus allowing to obtain an insurance premium reduction for residents. Such measures could be financed by having part of the premium collected by the State as last resort reinsurer.

In order to implement prevention measures, an important pre-requisite is the mapping of the territory in relation to the various catastrophe risks envisaged.

### Tax rate (%) on fire premiums in some European countries

- **Italy**: 22.25%
- **Finland**: 22.00%
- **Germany**: 15.00%
- **Belgium**: 9.25%
- **The Netherlands**: 7.00%
- **Spain**: 6.00%
- **United Kingdom**: 5.00%
- **Ireland**: 2.00%
- **Sweden**: 0.00%
- **Denmark**: 0.00%
POSSIBLE SYSTEMS TO ALLOW MUTUALISTIC PRICES (1/2)

- Premiums in proportion to risk
  - Boosts territorial initiatives towards a risk reduction
  - Implies high premiums for very risky areas (a problem that may be solved eventually through State support policies for the payment of the premium)

- Compromise allowing to contain price volatility (e.g. establishment of a pre-set relationship between min. and max. price)

- Average mutualistic premiums
  - Undifferentiated price on the territory (not due to building features of the dwelling) and potentially available to all because moderate.
  - Minor incentive to apply measures for risk reduction in specific areas. The incentive to build following adequate safety measures remains.
Per ottenere in un mercato concorrenziale prezzi mutualistici bisogna adottare degli accorgimenti tecnici (ad es. Fondo di perequazione, Consorzio, riassicuratore pubblico che offre una copertura a costo medio, ecc…)

POSSIBLE SYSTEMS TO ALLOW MUTUALISTIC PRICES (2/2)

1. SMOOTHING FUND*
   - Compensations
   - Losses

2. PUBLIC REINSURANCE SYSTEM*
   - Reinsurance premium
   - Losses

3. PRIVATE INSURANCE CONSORTIUM*
   - Premiums
   - Losses

INSURANCE/REINSURANCE PRIVATE SYSTEM

Note(*): Provided that the State remains the last resort reinsurer
CONTENTS

• THE CONTEXT:
  - THE EVOLUTION OF NATURAL CATASTROPHES WORLDWIDE
  - FINANCIAL CRISIS IN EUROPE AND EXIT STRATEGIES

• ROLE OF INSURANCE: THE NEED FOR A PUBLIC-PRIVATE COOPERATION TO COVER NATURAL DISASTER RISKS;

• THE ITALIAN EXPERIENCE;

• EUROPE’S ROLE
A relevant part of Italian municipalities is in seismic risky areas. This is also due to Italy’s geographic positions.

In Italy, around 3,671 municipalities, that is 45.3%, are classified as having a "high" or “very high” flood risk.

Etna’s coastline, the Stromboli and Neapolitan areas, represent the areas with a higher risk.
CIVIL PROTECTION INTERVENTIONS


Service efficiency

The Italian National Civil Protection Service can rapidly mobilize operational resources for emergency management and recovery both at home, throughout Europe and around the world. Its components constantly research known hazards to better understand and model vulnerabilities, while technical experts co-operate in real time to monitor events as they unfold and operate the early warning systems.

These professionals are supported by a highly organized and motivated volunteer service. What makes the different parts of the civil protection system work effectively is its governance structure under the direct authority of the Italian Prime Minister.

Areas for improvement

- Strengthening the enforcement of land use restrictions in zones exposed to natural hazards and ensuring the application of seismic codes in buildings and public infrastructure;
- Setting minimum standards for civil protection services throughout Italy. An efficient inspection system, supplemented by the power to implement sanctions, is needed so that minimum standards are adhered to in all provinces and municipalities;
- Improving insurance cover for major risks. The take up of private insurance against natural disasters is still rather limited.
Proposals for various draft laws to discipline and fix the principles of a mixed public-private system (insertion of a guarantee for natcat in insurance contracts against fire in dwellings).

Budget Law 2005 introduces a voluntary insurance regime to cover risks deriving from natural catastrophes on buildings, no matter what their use is, sets up a Guarantee Fund managed by Consap SpA and envisages an appropriation for 50 millions Euros.

The Civil Protection Department has studied and implemented an extensive cooperation mechanism between the private and the public sector to cover natcat risks. Thus a close cooperation between ANIA and the Civil Protection Agency started which led to ANIA's Executive Committee meeting on November 2009 in L'Aquila. ISVAP (the insurance national regulator) also took part at this meeting, and set up Working Group with institutions, insurance companies and consumer associations to propose more adequate insurance tools.

The Working Group coordinated by ANIA issued a report on the quantitative impact of damages caused by natural catastrophes to dwellings and possible national schemes to be adopted for the solvency of system.
PROPOSAL AFTER THE L’AQUILA EARTHQUAKE (6 APRIL 2009)

The issue of introducing an insurance scheme against natural catastrophes, after the tragedy which struck L’Aquila (6 April 2009), has come back in public debates and in the political agenda. Some crucial points in the proposal come from the insurance sector, also in the wake of the proposal made by Minister Brunetta (inspired to the US’s National Flood Insurance Program), such as:

- **Compulsory insurance cover**
  The system should be based on compulsory policies of private dwellings for damages arising from fire and natural catastrophes.

- **No ex-post financing for dwellings**
  The State should declare that the only form of compensation for dwellings submitted to compulsory insurance is the one relative to insurance cover.

- **The State as last resort reinsurer**
  The State should act as last resort reinsurer upon payment of a premium; local bodies may play a role in planning prevention measures and in mapping risks.

- **Setting up of a consortium for smoothing funds**
  Being understood that ours is a free market regime and that prices are differentiated based on construction methods (which encourages good building practices), some aspects relative to the setting-up of consortia or smoothing funds must be more thoroughly examined.
CHARACTERISTICS OF THE ITALIAN NATIONAL INSURANCE SYSTEM PROPOSED

Italy is exposed to very intense catastrophic events which could result in a damage exceeding State capacity for dwellings. The high public dept characterizing our Country is an obstacle to an appropriate allocation of resources destined to pay damage caused by natural catastrophes.

The **insurance sector** must intervene, even though it is not sufficient to guarantee the capacity needed for the system solvency. We may choose to define a limited capacity, that is if the limit is exceeded compensations are reduced in proportion (see system adopted in Belgium).

**ALTERNATIVE SOLUTIONS**

- **Compulsory public-private system**
  - State as last resort reinsurer
  - Solidarity principle (compensation of the coverage cost between areas differently exposed to risk)
  - Coverage of all dwellings

- **Semi-compulsory public-private system**
  - State as last resort reinsurer
  - Prices differentiated per area
  - Coverage of those dwellings only which decide to underwrite a fire insurance policy.
NATIONAL PLATFORM FOR DISASTER RISK REDUCTION

Issued by means of Decree of the Presidency of the Council of Ministers (DPCM) n. 66/2008, it entrusted the Civil Protection Department with the task of presiding a coordination taskforce made up of delegates from different Ministries and other bodies (ANIA is one of these). Such national Platform has the task of operating in order to meet the objectives fixed by the *Hyogo Framework For Action 2005-2015*.

**THEMATIC WORKING GROUPS:**

1. Risk analysis and mapping;
2. Monitoring and alert systems;
3. Law provisions;
4. Planning of systems for responses to emergency;
5. Training, information and spreading of knowledge;
6. Economic incentives and insurance system;
7. Structural measures and actions for risk reduction.
CONTENTS

• THE CONTEXT:
  - THE EVOLUTION OF NATURAL CATASTROPHES WORLDWIDE
  - FINANCIAL CRISIS IN EUROPE AND EXIT STRATEGIES

• ROLE OF INSURANCE: THE NEED FOR A PUBLIC-PRIVATE COOPERATION TO COVER NATURAL DISASTER RISKS;

• THE ITALIAN EXPERIENCE;

• EUROPE’S ROLE
On 9 March 2010, Commissioner Michel Barnier announced that the European Commission (EC) would carry out an in-depth examination of insurance schemes covering national catastrophes, in particular flooding. Commissioner Barnier provided that this initiative would involve a dialogue with Member States and insurance experts on examples of best practice, which would become the subject of a conference to be organised by the EC in November 2011.

The CEA (the European insurance and reinsurance federation) initially provided the EC with a summary of the various national catastrophes insurance schemes throughout Europe and, in October 2010 provided a summary of the insurance penetration rates for losses caused by hydrological and geological events such as floods, windstorms and earthquakes.