

**OECD CONFERENCE ON CATASTROPHIC RISKS AND INSURANCE**  
**22-23 November 2004**

The OECD held a conference on “Catastrophic Risks and Insurance” on 22/23 November to stimulate high level policy discussion between representatives of governments, the private sector and academia on ways to cope with the increasing threat of future catastrophes. Since the economic incidence of catastrophes has been growing over time, the key issue turns out to be how to deal in an efficient manner with the increasing costs associated with natural and man-made disasters. The OECD is expected to develop further work and policy guidance in this field.

The last few years have witnessed a number of very large-scale disasters. Some were **man-made**, either *intentional* - such as the terrorist attacks of 11 September 2001 in the United States and the 11 March 2004 Madrid bombings - or *accidental*, such as the huge explosion that ripped through the AZF (Azote de France) factory on the outskirts of Toulouse in 2001. Others resulted from **natural hazards**, including the tropical storm Allison in 2001 in the US, the severe floods across large parts of Europe in summer 2002, the May 2003 earthquake in Algeria, the Bam earthquake in December 2003 or the hurricanes and typhoons in the Caribbean, US and Asia in summer and fall 2004.

**The frequency of such disasters and the severity of the losses involved have tended to increase since the late 1980s, and there are strong grounds to believe that this trend will continue in the future.** The losses involved in such catastrophes pose a serious challenge to governments, policymakers and a wide range of private sector players, including insurance and reinsurance companies.

**The conference addressed all the main questions raised by large scale disasters compensation, from the insurability of catastrophic risks, to the development of alternative risk transfer mechanisms, to the appropriate role for governments in the prevention and compensation of disaster losses.** These issues are relevant for both OECD member and non member countries; in this perspective, the development of efficient solutions may be a need even more compelling for the emerging economies that are prone to catastrophes and have limited access to financial resources.

**The policy questions stem from the observation that private insurance and reinsurance markets may not be able to respond to all the issues raised by modern-day catastrophic risk exposures: this proves to be especially true with regard to terrorism risks.**

- Challenges are raised by the **lack of risk predictability**. In order for private insurance markets to function properly, insurers must be able to assess and evaluate the risks that they undertake with a sufficient level of precision.
  - As far as *natural catastrophes* are concerned, computer-based risk modelling techniques have evolved during the past decades, providing insurance companies with more reliable tools to assess their exposures. The growing uncertainties related to climate change, however, remain a key issue in this area.
  - In the field of *accidental man-made disasters* and *occupational diseases*, the level of legal uncertainty has increased due to the development of liability laws and procedural rules in several jurisdictions.

-With regard to *terrorism*<sup>1</sup>, risk predictability is severely undermined by several factors, including the fact that, unlike for natural perils, there is no relevant historical series of past events. Besides, terrorist events are the result of human decision making processes, based on very complex sets of variables. Terrorist groups, for instance, tend to react to preventive measures by adapting their strategies, with a view to maximizing the damaging impact of their actions. After the September 11 events, private sector players dramatically changed their attitude towards terrorism risks: the extremely high level of risk uncertainty translated into the request for very high premiums, or even into the unwillingness of the private insurance sector to cover certain risks, such as those associated with *the potential future use of non conventional weapons of mass destruction*. As a result of the conjunction of high magnitude and high uncertainty, therefore, **the insurability of modern-day terrorism risks has been put into question.**

- **Limited financial capacity is also an issue.** The frequency and severity of future expected losses cast doubts on the financial capacity of the international insurance and reinsurance industries to absorb costs of large scale disasters. The very high **risk of accumulation** and the difficulties in spreading catastrophic risks geographically, as well as over time, are among the main problems that insurance and reinsurance companies are facing in this field.
- **Capital markets** may provide additional sources of capacity, but their role should not be overestimated at this stage. A market for natural catastrophe bonds (cat bonds) has emerged since the mid-nineties in response to the shortage of reinsurance capacity following a wave of major natural disasters, but – due to several factors, including the relative cost of these instruments, it has not developed significantly. As of today, the percentage of catastrophe risks transferred to capital markets remains extremely low as compared to the overall international reinsurance capacity. It is important to recognize that alternative risk transfer tools, such as cat bonds and insurance-linked securities, are negatively affected by the same predictability problems that challenge catastrophic risks insurability. Under current circumstances, therefore, financial market tools aimed at covering pure terrorism risk exposures are not likely to emerge.
- Another crucial issue that came forward during the policy discussion concerns the **insufficient level of demand for catastrophic risk coverage**. Even if insurance is made available for certain types of catastrophic risks, in most countries prospective policyholders are not purchasing enough coverage if it is marketed on a voluntary basis. This may depend on several factors: either prices are set too high, people are unaware of risks, or they simply rely on *ex post* governmental intervention for the compensation of disaster losses (the so-called Samaritan Dilemma).

In light of the above, the conference participants agreed that **time has come for governments to act, not merely to react.** This need is all the more important as it is mainly up to the governments to offset if not to eliminate macroeconomic losses, which could arise from private insurance market failures. The social costs associated with natural and man-made disasters, in other words, must be properly assessed and managed *ex ante*, before the occurrence of a major loss, and this requires a proactive role of governments.

Governmental intervention, though, should not be aimed at displacing private market solutions, such as insurance, reinsurance and alternative risk transfer tools. On the contrary, the role of governments should be encouraging and supporting the development of private sector initiatives, by limiting exposures and by providing a favourable legal, fiscal and regulatory environment.

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<sup>1</sup> Terrorism insurance is an issue on which the OECD has taken the lead, further to the 2002 ministerial mandate: See OECD Council at Ministerial Level, 15-16 May 2002: Final Communiqué PAC/COM/NEWS(2002)58: “We recognise the adverse effects of the shrinkage of affordable insurance cover for terrorism risks. We would welcome OECD policy analysis and recommendations on how to define and cover terrorism risks and to assess the respective roles of the insurance industry, financial markets and governments, including for the coverage of “mega-terrorism” risks”.

This role might take the form of a **partnership between the private and the public sectors**. Although many disasters have happened the last two years, it seems that in many countries neither governments nor potential victims are fully aware of the serious threat. Governmental action should involve efforts to promote **risk awareness**, to **prevent and mitigate disaster risk exposures** and to **reduce vulnerability**. In addition to *ex ante* policy measures, governments shall be responsible for setting up efficient post-disaster crisis management schemes, and shall participate in the compensation of losses resulting from catastrophes.

This is especially true for terrorism where there is a general recognition that, at least for the time being, governments may have to intervene in compensation mechanisms, either as reinsurers or as lenders of last resort.

Terrorism risk calls for international co-operation. The enforcement of a strong and comprehensive multinational counter terrorism policy has been recognised as an important step to be taken at this stage. If loss prevention and mitigation perform a crucial function in terrorism risk management strategies, it is no less important to foresee compensation, in case prevention fails. Since mega terrorism attacks may result in damages exceeding the joint capacity of private markets and governments at a national level, international solutions may be worth pursuing.

Further work is needed, with a view to the development of optimal disaster risk management strategies that combine all the available options in the most efficient way, taking into account country specific problems, as well as international issues.