

**CONFERENCE ON CATASTROPHIC RISKS
AND INSURANCE**

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**CATASTROPHE INSURANCE PROGRAMS IN
EMERGING COUNTRIES : FIELD EXPERIENCE**

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Powerpoint Presentation

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For further information on this conference, please contact Cécile Vignial, Financial Markets Division (Cecile.Vignial@oecd.org), or Yosuke Kawakami or Morven Alexander, Outreach Unit for Financial Sector Reform (Yosuke.Kawakami@oecd.org or Morven.Alexander@oecd.org)



Catastrophe Insurance Programs in Emerging Countries: Field Experience

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Main Messages



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- Catastrophe insurance penetration in disaster prone developing countries is very low and tends to lag behind other P&C lines.
- There are strong forces at work that impair the development of effective catastrophe insurance solutions in these countries.
- Alternative risk transfer arrangements/pools created as public/private partnerships and supplemented by ex-ante risk management and structured relief programs may be a way to go.

National Catastrophe Insurance Programs with World Bank Financed Assistance



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Country	Status
Turkey	Ongoing risk financing for TCIP and TA
Romania	Lending program for cat pool related technical work
Bulgaria	Risk management study for a national cat completed
Iran	Lending program for cat pool related technical work
Colombia	Lending in support of risk financing initiatives of municipalities
India	Risk management study completed/cat pool is under consideration
Philippines	Risk management study completed/cat pool is under consideration
Cambodia	Risk management study completed
Mexico	TA and lending under preparation for a national risk transfer program
Caribbean countries	Risk management study is completed/cat pool is under consideration
Russia	Expressed interest in risk management feasibility studies
China	Expressed interest in risk management feasibility studies



What All These Countries Have in Common?

Insurance Industry

- Very low insurance penetration for property and cat risk covers in particular.
- Insurance sector with insufficient capital base to support high cat risk retentions (with India being an exception).
- Often, weak regulatory oversight over companies' risk management policies

Government

- Strong tradition of governments providing considerable “reconstruction” subsidies to victims of disasters.
- Strong government reliance on ex-post funding sources, particularly donor aid and lending from development banks. (WB lending slide, see UN report, see Gujarat risk financing slide in our joint paper).

Households

- Low risk awareness and undeveloped risk management culture.
- Low incomes

Catastrophe Insurance Penetration in Developing Countries



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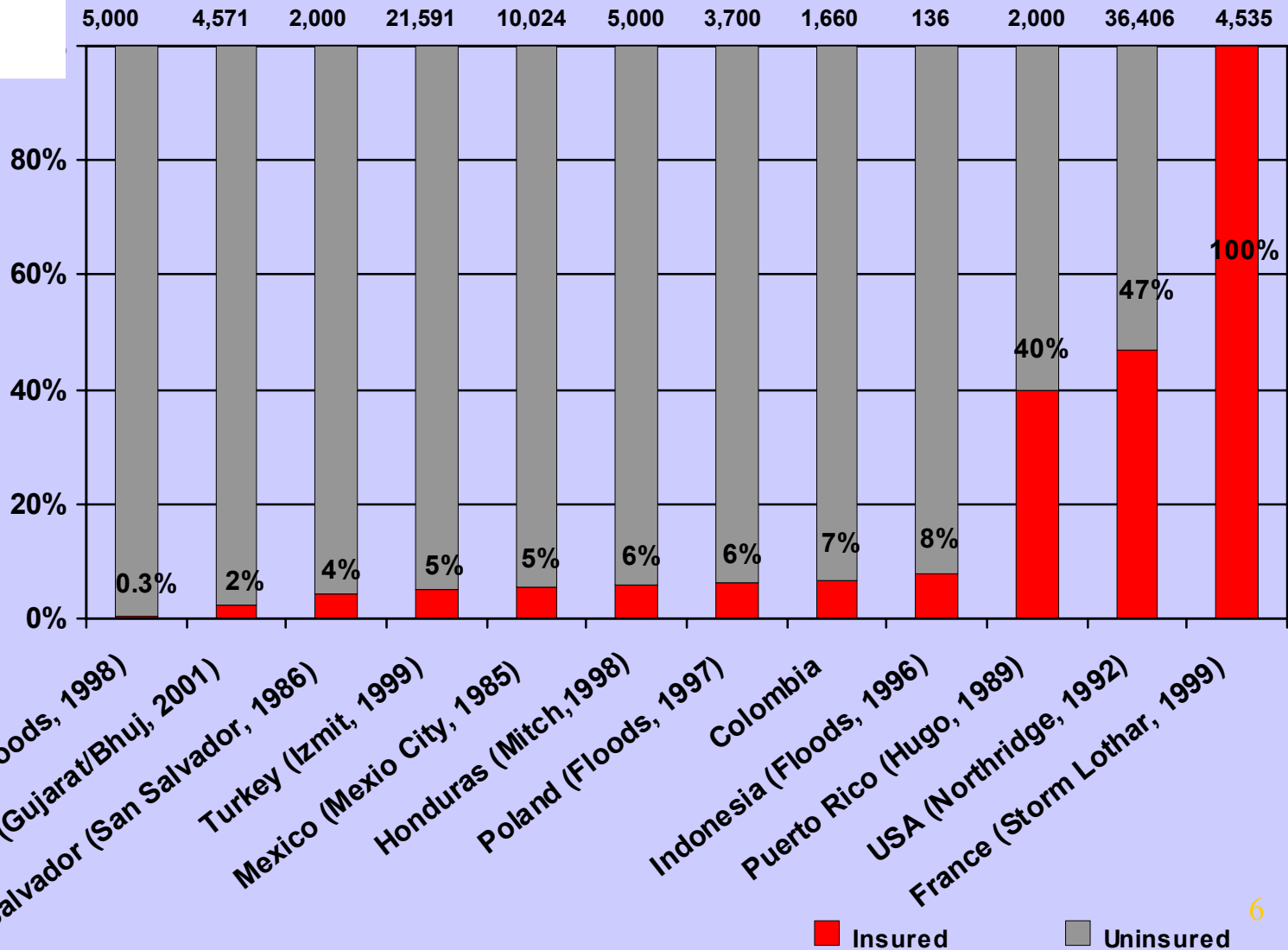
- India – under 0.5%
- the Philippines – under 0.3%
- Iran – under 0.05%
- Romania – under 5%
- Bulgaria – under 3%
- China – under 0.5%
- Turkey – 17%

Insured vs. Total Economic Loss Major Natural Catastrophes



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Total Economic Loss (US\$MM)



Source: Eugene Gurenko, 2004. Catastrophe Risk and Reinsurance: A Country Risk Management Perspective

Why Such Low Insurance Penetration for CAT?



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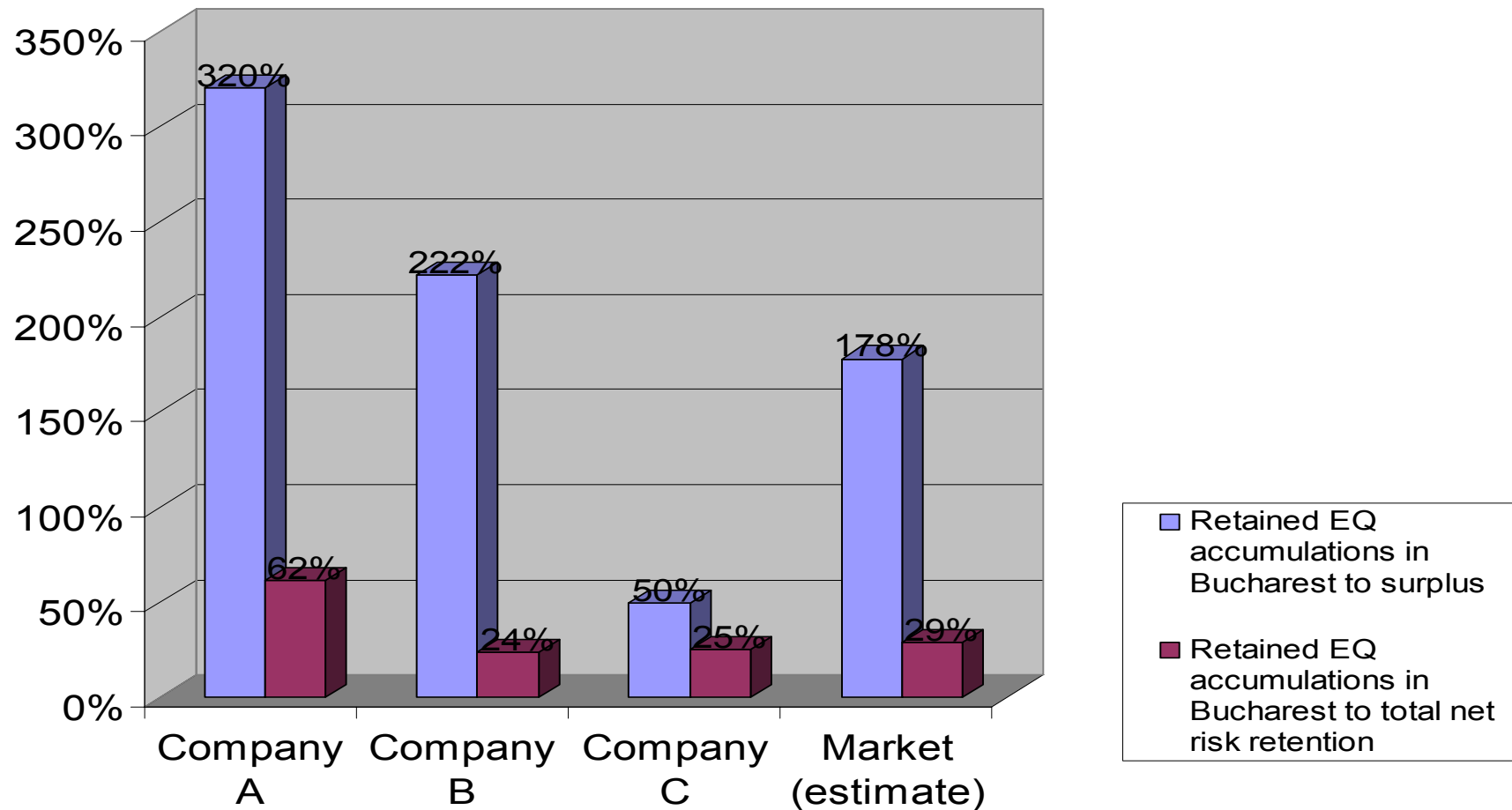
1. High Loss Potential. The Northridge EQ in California, for instance, cost local insurers all the EQ insurance premium they have ever collected in the state since the inception of the business, with the EQ loss consuming over 4% of globally produced insurance premium in 1994.
2. Difficulties with diversification of catastrophe risk at the regional or even country level by insurance companies.
3. Wide Spread Expectations of Government Post-Disaster Assistance. 'Many citizens simply expect public aid when calamity strikes. With 50 federal programs to supplement their courage, people have every incentive to build in flood prone areas and leave it to Uncle Sam.'

Romania: Insurers' Risk Retentions vs. Surplus



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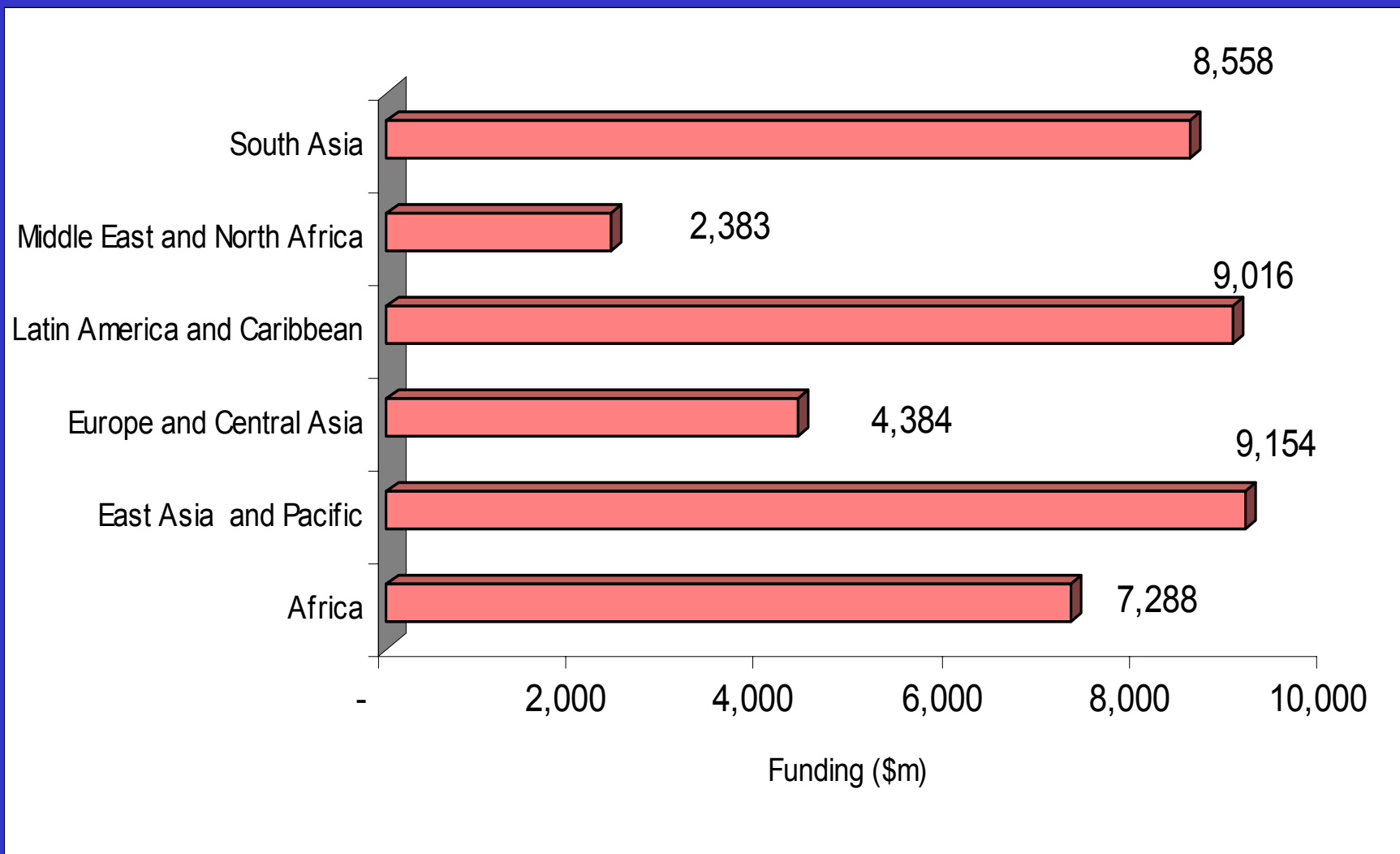
EQ Risk Accumulation Ratios



IBRD Lending for Natural Disasters over 20 Years: \$40 billion



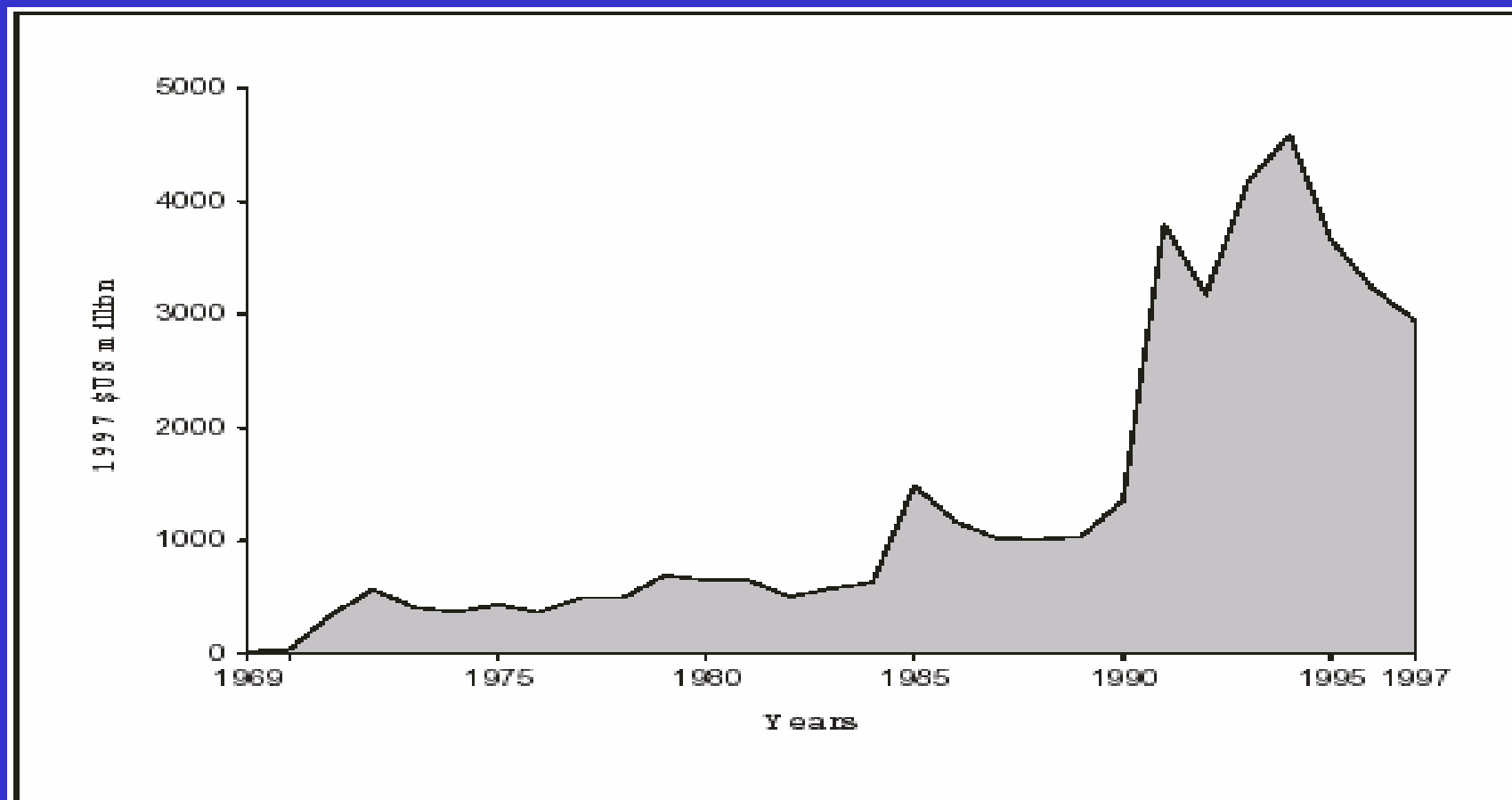
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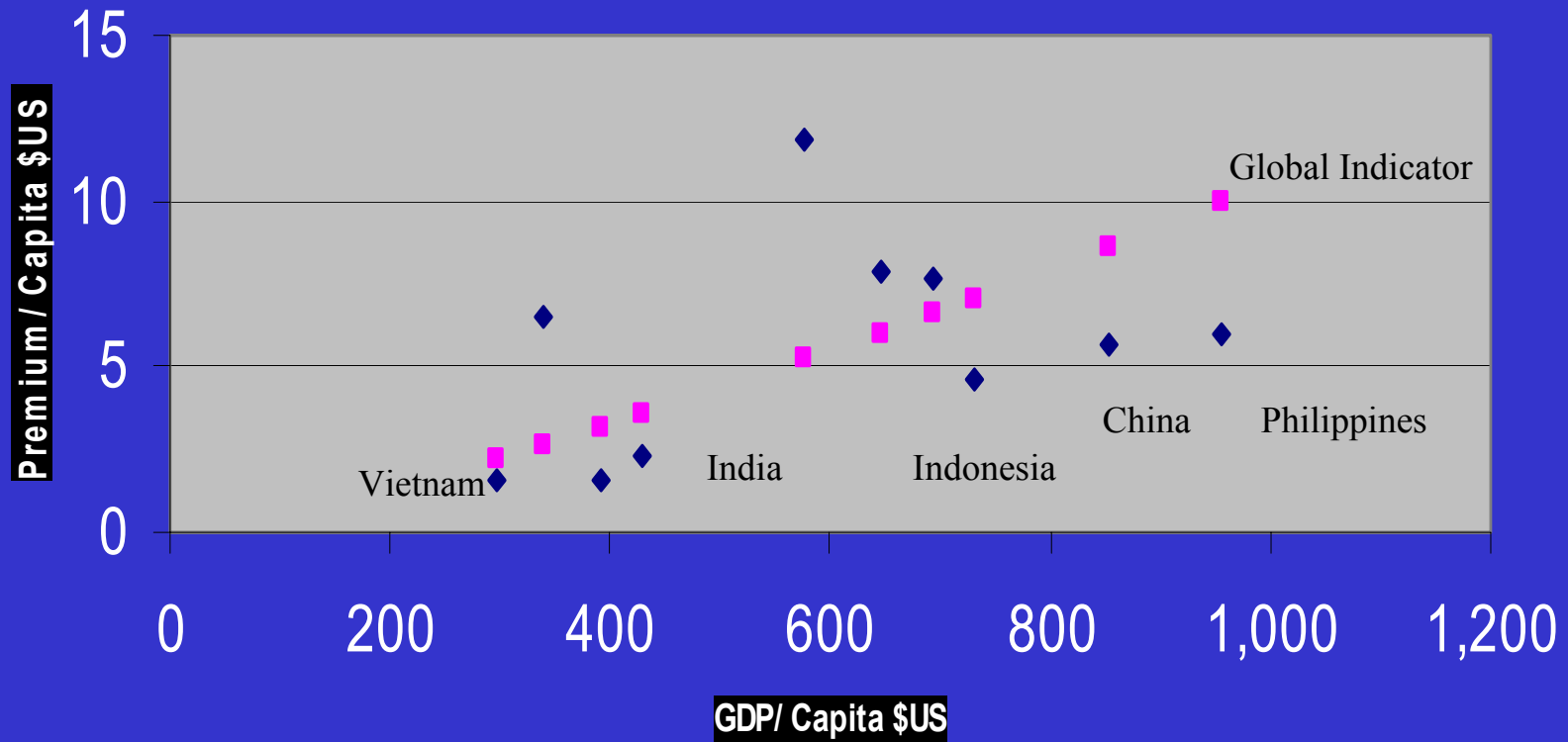
Provision of Emergency/Relief Funds



Source: Development Assistance Committee, 1998.



The Iron Grip of Insurance Spending Law



$$\text{PERSONAL INSURANCE PREMIUM} = 1.3 * (\text{GDP}/1000)^2$$

$$\text{PERSONAL CAT INSURANCE PREMIUM} = 0.1 * \text{PERSONAL INSURANCE PREMIUM}$$



- **The most common outcome of these various forces at play is a political and social deadlock over when and how to move forward toward a more sustainable risk management system!**

The Government Cat Risk Dilemma



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■ Main doubts to consider:

- ◆ A potential political payoff from an investment into a national catastrophe risk management program may come too late due to the long return periods of cat events. In fact, in the absence of a major recent event, creating such a program may prove highly unpopular!
- ◆ By creating a cat risk insurance program we will be limiting our discretion to provide popular disaster relief subsidies.
- ◆ By building national cat reserves, we will be diverting national savings from investments into other potentially more economically productive projects.
- ◆ By building a national cat insurance program, we would be undermining our ability to receive more aid from international donors, which would even further diminish the return on an investment in a national cat fund.

The Insurance Industry Cat Risk Dilemma



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- **Creation of a cat pool may result in the loss of cat risk premium, no matter how insignificant.**
- **In those markets, where local insurers “front” for international reinsurers due to the lack of capital, creation of a pool would result in the loss of reinsurance commissions.**
- **In the markets with insufficient regulatory oversight, creation of a cat pool may be equivalent to a considerable reduction in companies’ retentions of cat risk, and thus, in reduced net premium income and reduced annual earnings during the years without major cat events.**

The Consumers' Cat Risk Dilemma



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- **“It will never happen in my lifetime!”**
- **Why pay for protecting against something remote and abstract when there are other more urgent spending priorities!**
- **Why buy insurance when I have my government to help me!**
- **Buying insurance may in fact reduce my chances of receiving government aid!**
- **Government sponsored insurance cover may not provide good value for money and, who knows, if they will pay me at the end at all!**

Looking for a “Silver Bullet”?



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- **Is there a solution that can address the main concerns of all key stakeholders in the process?**
 - ◆ No simple solutions.
 - ◆ Any workable solution would require an intensive dialogue that involves government, insurance industry, global reinsurers, international donors, and consumer organizations. The social, technical and political complexity of the issues may be rather overwhelming.

Why Maintaining a Status Quo is no Longer a Solution



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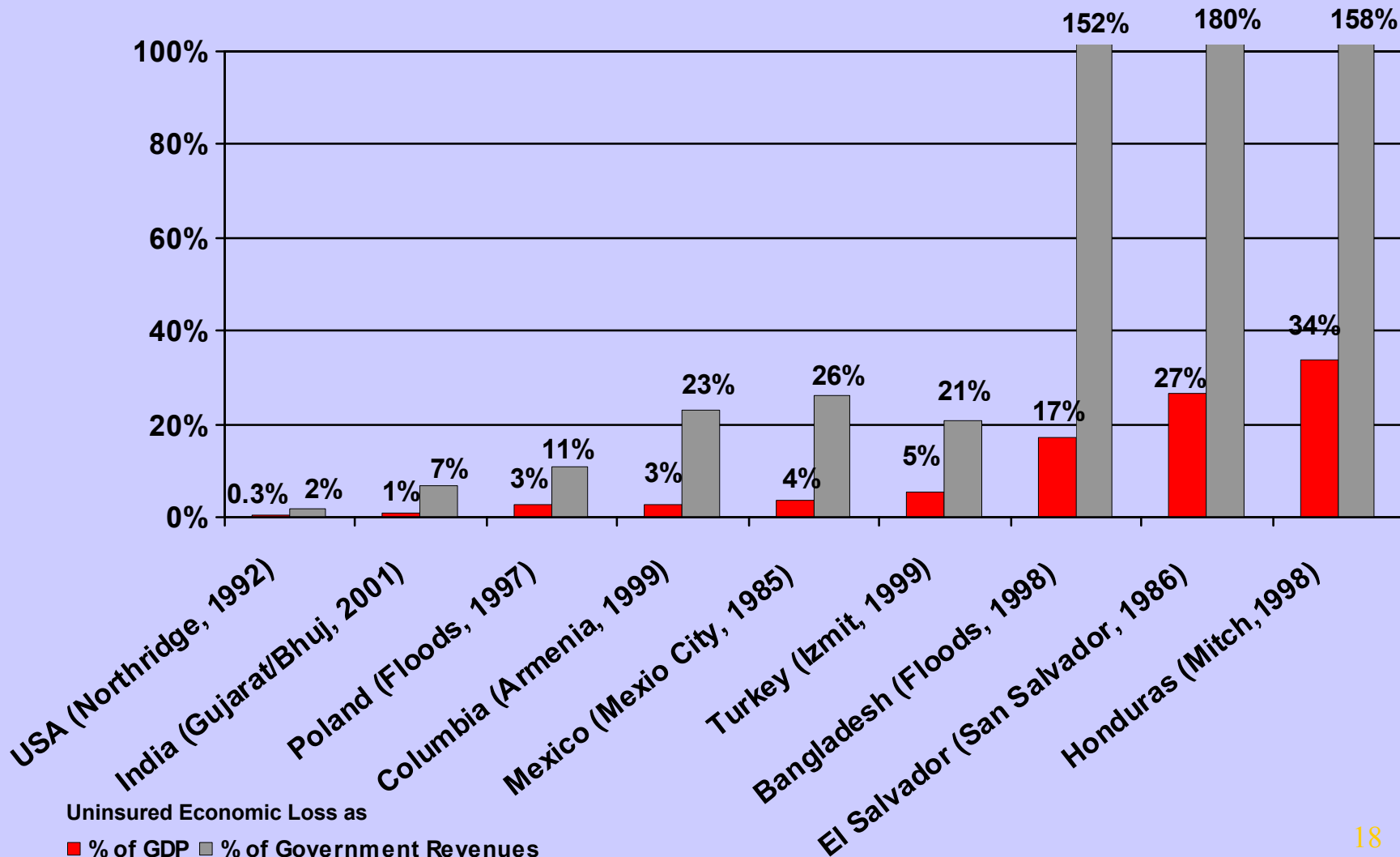
- A wide discrepancy between economic and insured losses in the World Bank client countries means that most of the risk is carried by governments and homeowners.
- Low penetration of insurance contributes to the growing funding gap between the size of economic losses caused by natural disasters and the amount of government resources available to finance them.
- Lack of liquidity in the aftermath of natural catastrophes, caused by underinsurance, severely retards economic recovery.
- Large catastrophe events may entail years of unsustainable fiscal deficits and thus can jeopardize the country's chances for economic growth.

Fiscal and Economic Effects of Disasters



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Uninsured Economic Loss as % of GDP and Government Revenues



Getting to a “Yes”



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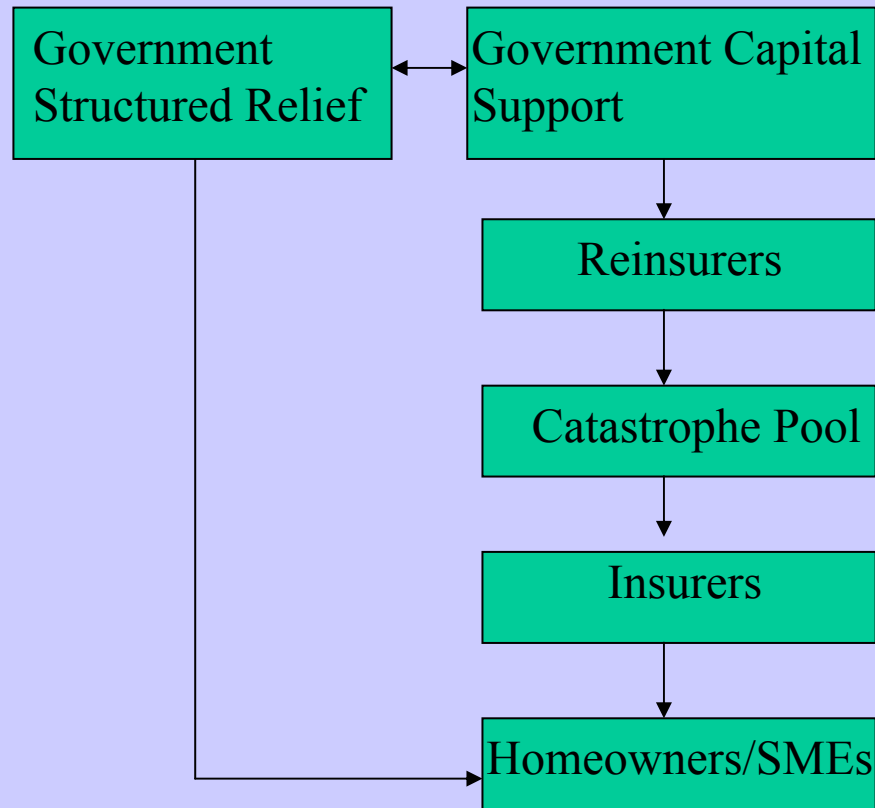
- **Any workable catastrophe insurance solution should be able to meet the following criteria of key stakeholders:**
 - ◆ Reduce government fiscal exposure to natural disasters while leaving enough room for politicians to provide some discretionary assistance to disaster victims.
 - ◆ Reduce government reliance on ex-post donor funding by creating incentives for ex-ante risk management.
 - ◆ Generate some tangible benefits for the insurance industry which would clearly outweigh potential loss in premium.
 - ◆ Offer affordable catastrophe insurance products to homeowners backed by strong regulatory incentives to buy such insurance cover and government financial participation in the risk financing program.

A Possible Risk Management Approach for Emerging Markets



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International Donors
Development Banks





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-
- **Why government should be involved in risk transfer programs?**

Capital Costs Drive the Cost of Individual Catastrophe Cover



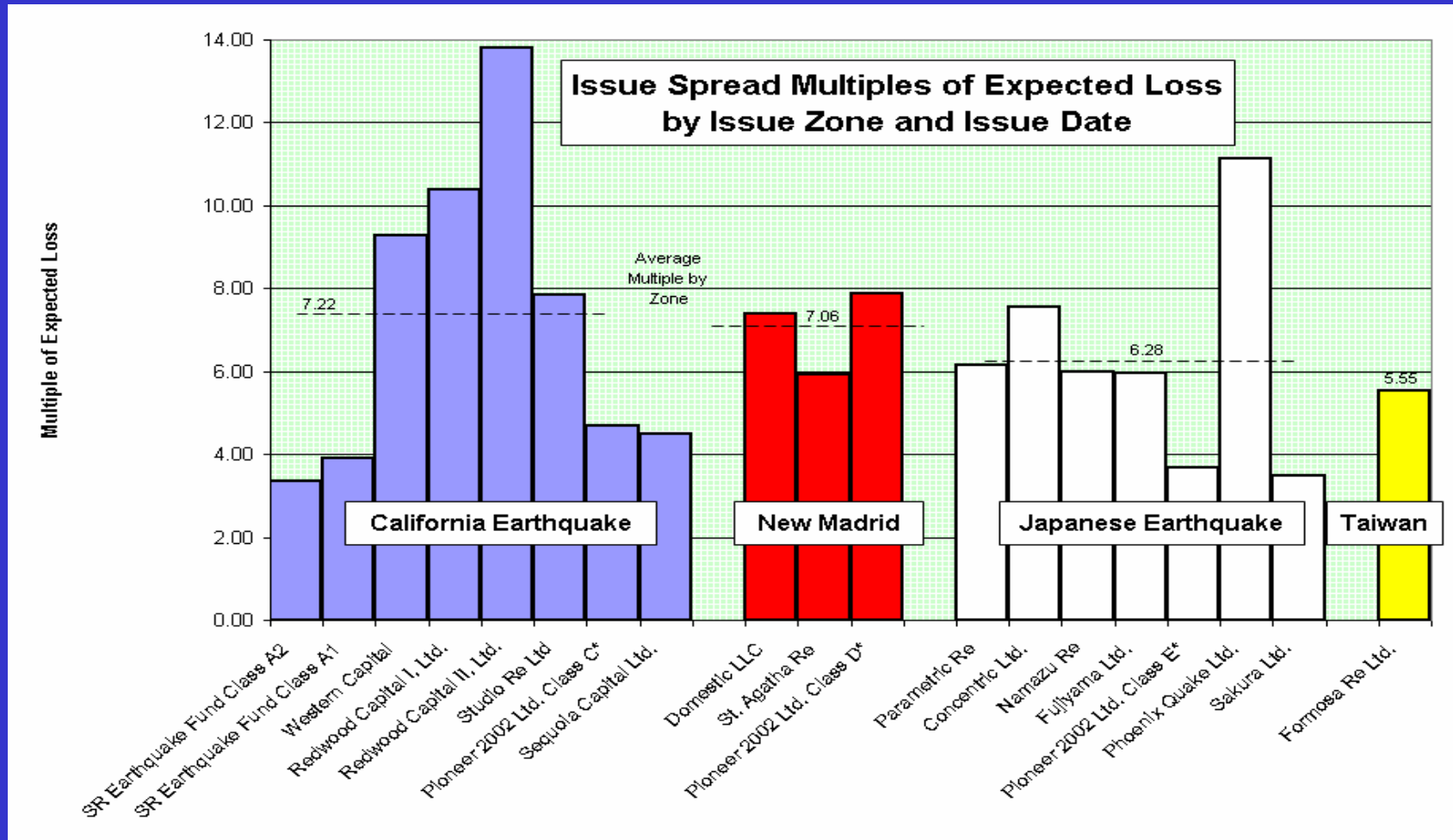
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- **The insurance industry generally targets a 1-in-100 year to 1-in-250 year insolvency level, e.g. makes full capital provisions for once-in-a-century catastrophic events, not once-in-a-millennium events.**
- **A policy that provides coverage for a major, once-in-a-century, catastrophe in any of the major US, European, and Japanese markets carries a market capital cost 3 to 6 times the actuarial cost.**
- **The capital cost multiple versus actuarial cost decreases with increasing probability of the catastrophe—for example, a once-in-a-decade catastrophe coverage would have, all other things being equal, a capital cost much lower than 3 to 6 times actuarial costs.**

Capital Costs Are the Key Cost Driver of Cat XL Coverage



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Source: Morton Lane (2004) in Catastrophe Risk and Reinsurance: Country Risk Management Perspective

Turning Key Challenges Into a Business Opportunity?



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- **How to provide affordable insurance coverage of acceptable credit quality despite high capital costs and in the environment of volatile reinsurance market?**

Why National Catastrophe Insurance Pools is a Potential Way Forward?



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- Public/private partnerships in catastrophe risk management can effectively secure programs' access to relatively cheap capital (with government becoming a reinsurer of last resort) and operational efficiencies of private insurance and reinsurance markets.
- Can build overtime a formidable supply of additional domestic claims paying capacity thus stabilizing premium rates.

Turkish Catastrophe Insurance Pool: Major Highlights



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	2000/1	2002	2003	2004	2010 forecast
Claims Paying Capacity	\$ 600 mm	\$ 900 mm	\$ 800 mm	\$ 750 mm	\$ 1.3 bb
Policy # (% of TH)	0.6 mm	2.48 mm	1.9 mm	2 mm	3.5 mm
Surplus	\$ 0 mm	\$ 2 mm	\$ 10 mm	\$ 40 mm	\$ 150 mm
Premium Rate (average)	\$ 13	\$ 15	\$ 17	\$ 21	\$ 25

World Bank Role



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- ❑ **The World Bank can add value by facilitating the development of catastrophe risk markets around the globe.**
- ❑ **Creation of specialized catastrophe insurance programs helps to:**
 - ❑ Boost insurance penetration
 - ❑ Increase industry's technical sophistication
 - ❑ Build up additional domestic claims paying capacity
 - ❑ Reduce government exposure to catastrophe risk.



Conclusions

- (i) Creation of national catastrophe risk management programs is gradually becoming an integral part of the government major policy priorities
- (ii) Private insurance markets stand to gain from the creation of effective public/private partnerships in catastrophe risk transfer due to reduced capital costs, securing access to additional stable claims paying capacity and by defeating the “iron law of insurance spending.”
- (iii) World Bank can provide technical and capital support to national catastrophe insurance programs by working together with private insurance markets and governments.
- Donors countries should step up their efforts to encourage pro-active ex-ante risk management on the part of disaster prone developing countries.