

FINANCIAL POLICIES FOR DISASTER RESPONSE

SESSION 4: Disasters, Fiscal Response

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Number of major natural disasters by type in APEC and ASEAN countries, total for 2000-2011.

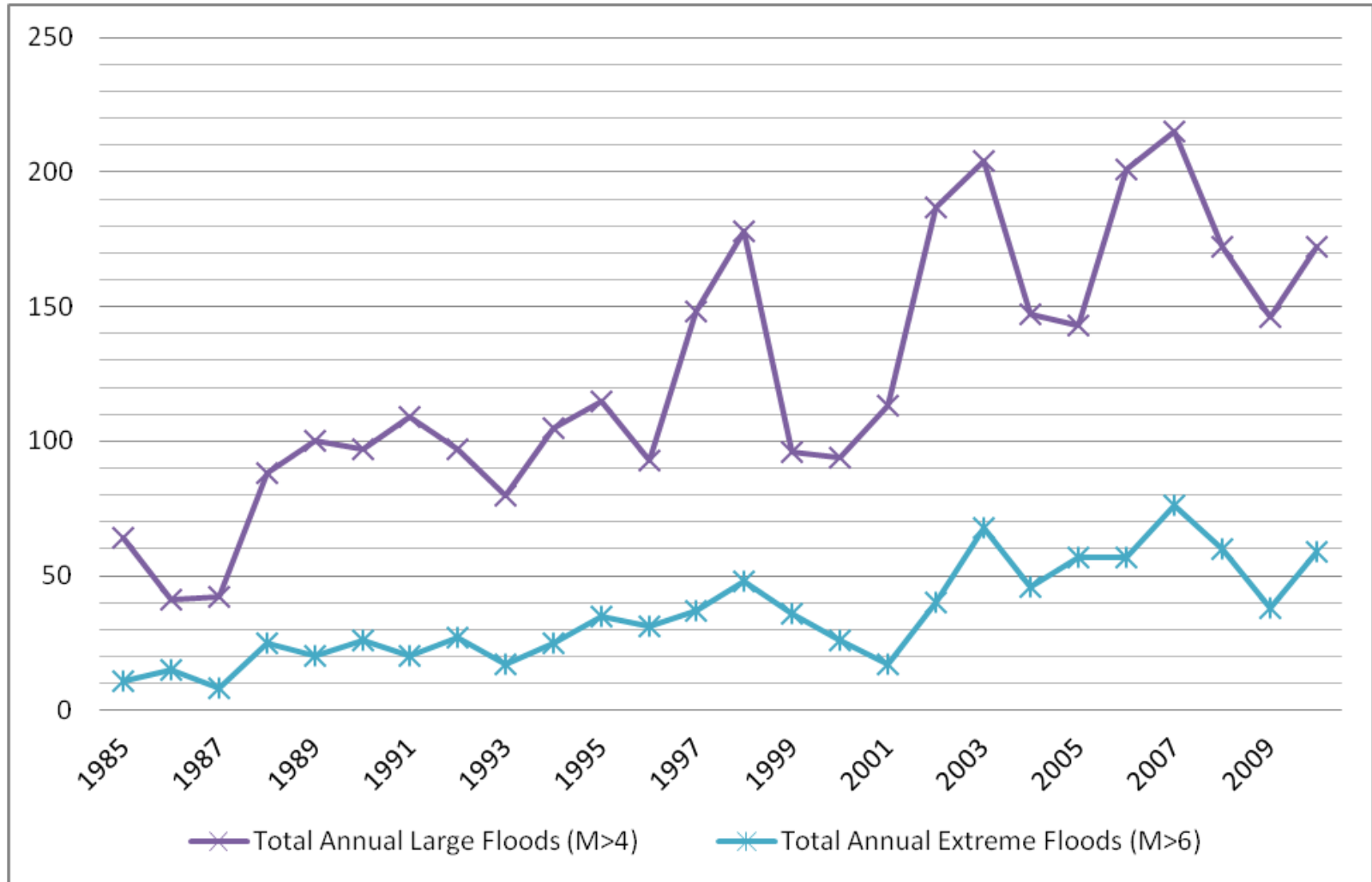
	<i>Earthquake (seismic activity)</i>	<i>Flood</i>	<i>Mass Movement Wet</i>	<i>Storm</i>	<i>Other types</i>	<i>Total</i>
Total APEC	152	559	108	571	263	1653
Total ASEAN	50	254	51	154	79	588
Total	154	583	111	578	273	1699

Damage from natural disasters in APEC countries in 2000-2011 (mln USD).

Country	Average loss from a single event	Maximum loss	Total events
Australia	436	5130	73
Canada	186	545	39
Chile	3384	30000	31
China	1197	85000	325
Hong Kong	0,38	0,38	9
Indonesia	324	4452	170
Japan	7376	210000	72
Republic of Korea	559	4500	35
Malaysia	250	605	35
Mexico	890	5000	81
New Zealand	1420	6500	15
Peru	300	600	43
Philippines	29	585	181
Russia	211	1800	87
Thailand	101	1000	61
USA	2467	125000	264
Vietnam	107	785	93
Total	1349	210000	1614

The table is based on EM-DAT database data. APEC countries that are also ASEAN member are shown in bold. Average and maximum loss estimates are calculated for disasters, where the data is available.

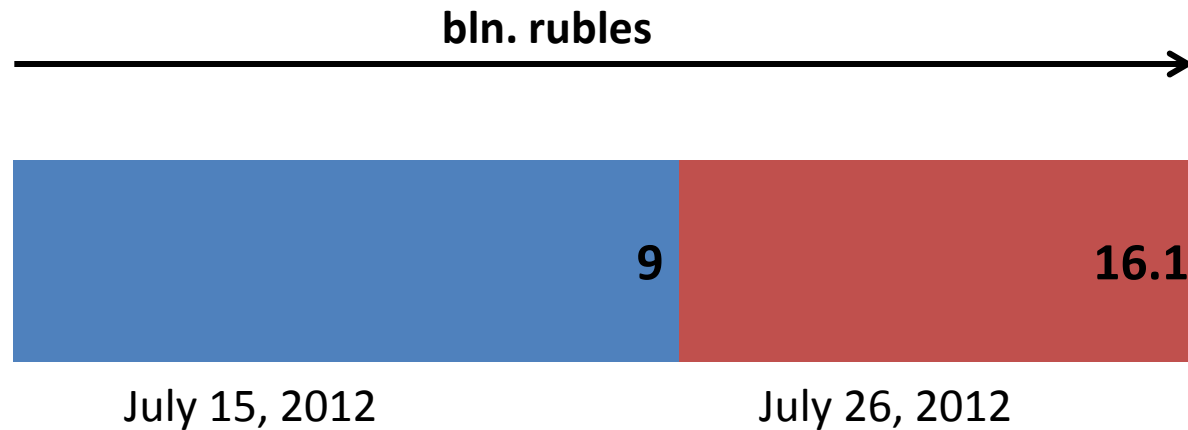
Number of large and extreme floods in the world, 1985-2011



Source: Data from the Global Archive of Large Flood Events / Dartmouth Flood Observatory

Problems of risk assessment Krasnodar Krai flood (7 July 2012)

Disaster mitigation expenses by regional and federal governments

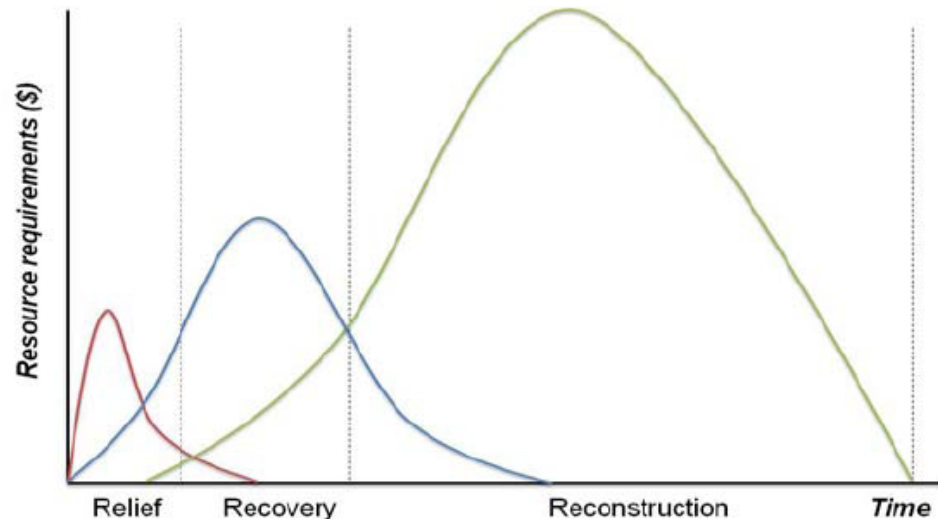


Fiscal response timing

Availability of financial instruments for disaster mitigation.

Instruments	Indicative Cost (multiplier)	Disbursement (months)	Amount of funds available
Donor support (relief)	0-1	1-6	Uncertain
Donor support (recovery & reconstruction)	0-2	4-9	Uncertain
Budget contingencies	1-2	0-9	Small
Reserves	1-2	0-1	Small
Budget reallocations	1-2	0-1	Small
Contingent debt facility (e.g., CAT DDO)	1-2	0-1	Medium
Domestic credit (bond issue)	1-2	3-9	Medium
External credit (e.g. emergency loans, bond issue)	1-2	3-6	Large
Parametric insurance	2 & up	1-2	Large
ART (e.g., CAT bonds, weather derivatives)	2 & up	1-2	Large
Traditional (indemnity based) insurance	2 & up	2-6	Large

Main stages of post-disaster policy and corresponding financial requirements.



“Special levy” to finance recovery from a natural disaster

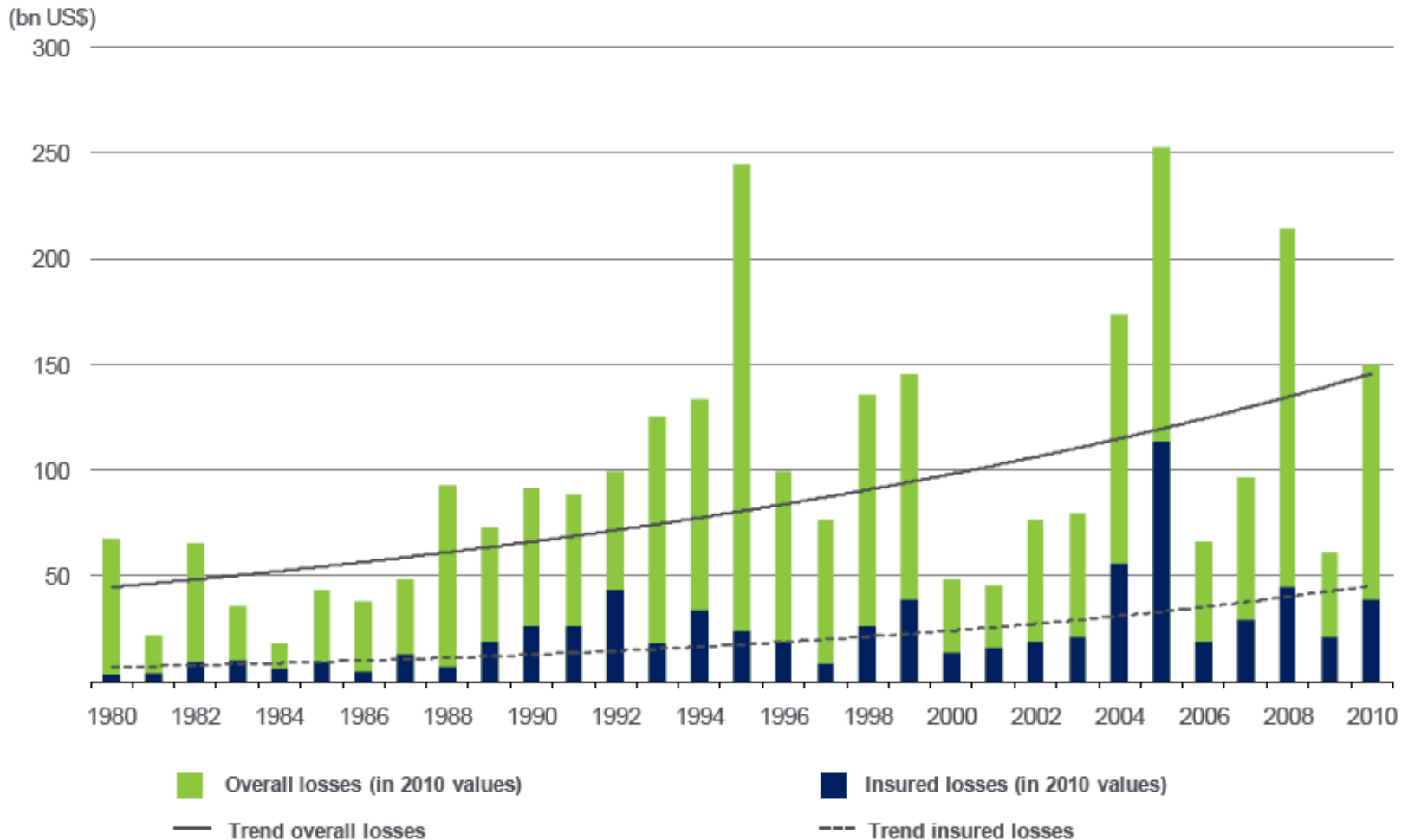
- + Can be temporary
- + Can help circumvent the possible inefficiency in rising spending
- + Understanding “where do the levy money go”.
- Rather complex system of implementing the law involving legal issues, delegating the collection of money, excluding the disaster victims from the levy, etc.
- Risk of raising the taxation burden indefinitely
- Insignificant difference from a rise in general taxation with tax breaks for disaster victims.

Special emergency tax: Australia floods levy

- The flood levy applied to taxable income from 1 July 2011 to 30 June 2012
- Low income earners did not pay the flood levy
- Certain people affected by natural disasters did not pay the flood levy
- Total tax = 1.8 billion Australian dollar (US\$1.79 billion)

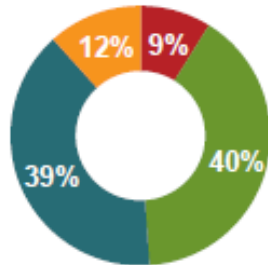
Taxable income	Levy
Less than \$50,000	0
Between \$50,000 to \$100,000	0.5%
More than \$100,000	\$250 plus 1.0% of the difference between \$100,000 and your taxable income

Cost of Natural Catastrophes Worldwide, 1980-2010

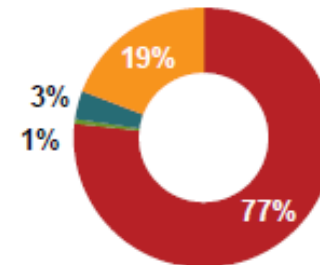


Total and insured losses from natural disasters in 2010

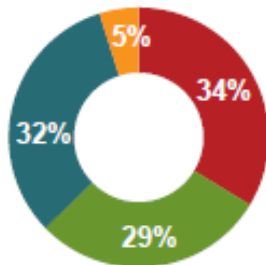
960 Loss events



295,000 Fatalities

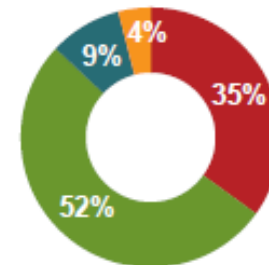


Overall losses* US\$ 150bn



*in 2010 values

Insured losses* US\$ 38bn



*in 2010 values

■ Geophysical events
(Earthquake, tsunami,
volcanic eruption)

■ Meteorological events
(Storm)

■ Hydrological events
(Flood, mass
movement)

■ Climatological events
(Extreme temperature,
drought, forest fire)

Options for state interference with insurance/reinsurance system

Governments can act, directly or through a special purpose entity, as:

- **Primary insurer** (Spain, New Zealand for earthquake risks)
- **Reinsurer of last resort** (France for all catastrophic risks and Japan for seismic risks)
- **Backstop liquidity provider** (Australia)
- **Guarantor** (Spain and New Zealand for earthquake risks, Iceland)
- **Stimulator – compulsory or quasi-compulsory schemes:**
 - Insurance against natural disasters is obligatory (Turkey)
 - Insurance companies are required by law to include coverage for catastrophic risks (Belgium, France, New Zealand for earthquake, Norway, Spain and most of Switzerland)

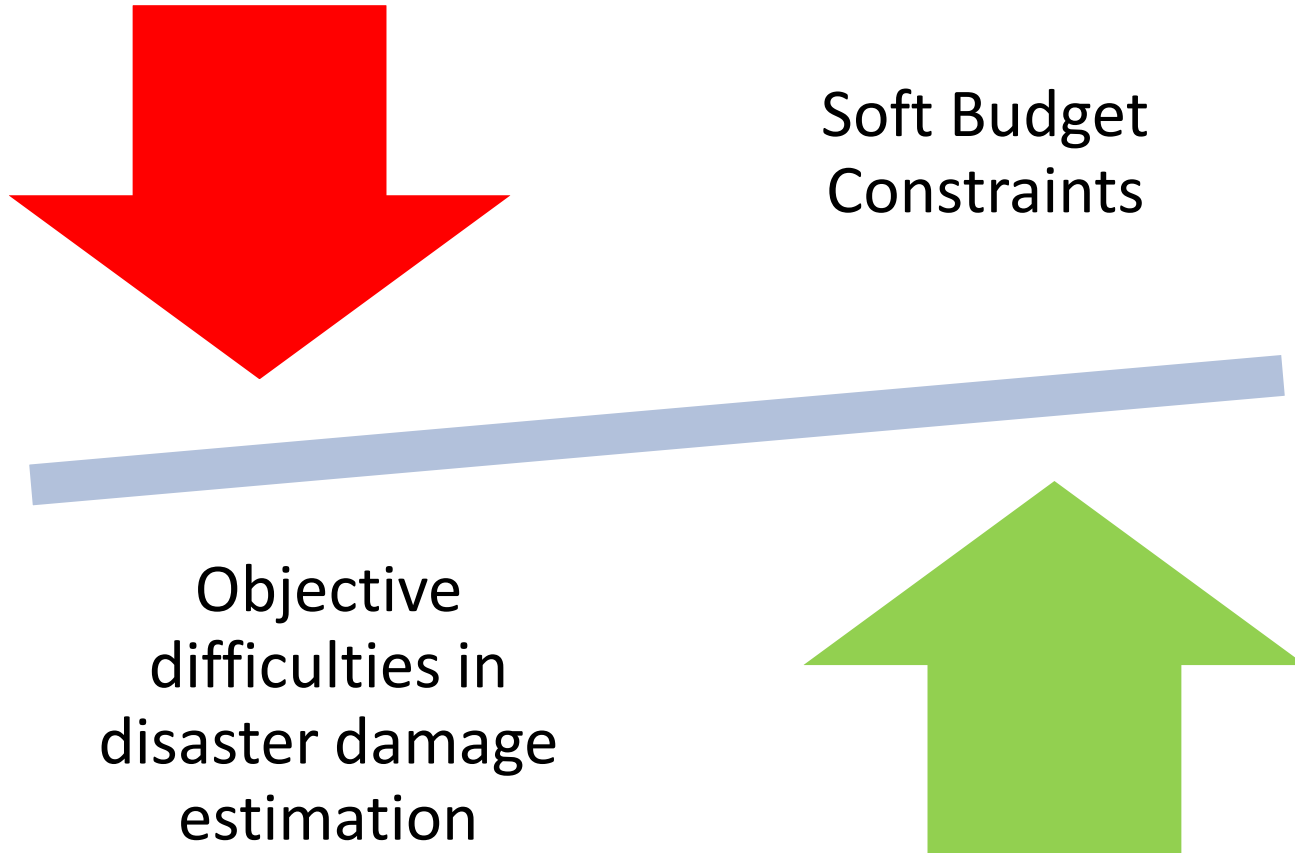
Policy recommendations

- In response to a rising frequency of catastrophic events governments may have to:
 - Implement legal changes, introducing and regulating tax breaks and low-interest loans in the impact zones during the recovery - Japan:
 - Fixed-asset taxes and real estate transfer taxes will be reduced or waived
 - Government guarantees on loans
 - Simplified approval process for land-use and development initiatives
 - Easing requirements for the percentage of green space at a factory site
 - Easing the rules restricting the location of solar and wind power facilities
 - Consider the possibility of introducing obligatory insurance in disaster-prone regions

Policy recommendations

- Creating and enforcing rigid procedures prepared for catastrophic events, including the distribution of burden of state guarantees between federal and state governments
- Disaster mitigation programs should become integrated into overall fiscal policy

Finding a balance in damage assessment



THANK YOU