

ECON 4903 Research

How Natural Disasters affect Economy?

自然災害如何影響經濟發展?



English Presentation

Introduction

- Natural disasters took away **60,000** people's life and **160 million** of people were affected every year (World Health Organization)
- Immediate economic losses vs. Investment in reconstruction
- Taking all negative and positive effects into account, will the economy be worse off or better off?
- Research purpose:
 - To study how natural disasters affect economic performance;
 - What factors contribute to different growth rate between developed and developing countries

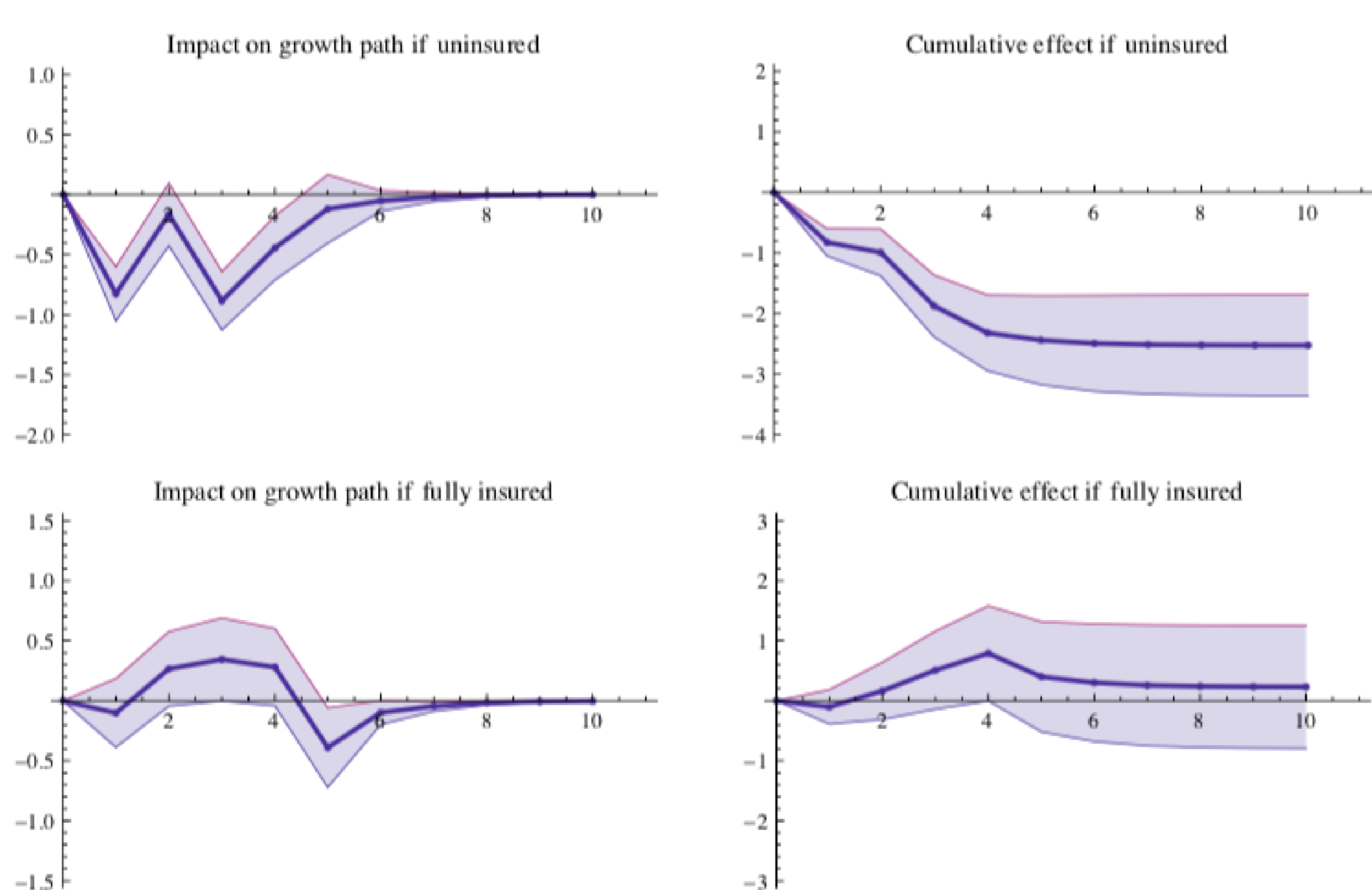
Data and Methodology

- Case Study: New Zealand, Haiti, Indonesia and Japan
- All 4 countries experienced serious earthquake in 2010, hitting at least 7.0 magnitude
- But encountered different economic consequences after disasters
- Compare the economic indicators to see whether the 4 countries had different speed of recovery
- Economic Indicators: GDP growth rate, GDP per capita, Unemployment rate and Inflation
- Time Horizon: Short term (<1 year), Medium term (1 to 2 years), Long term (>2 years)

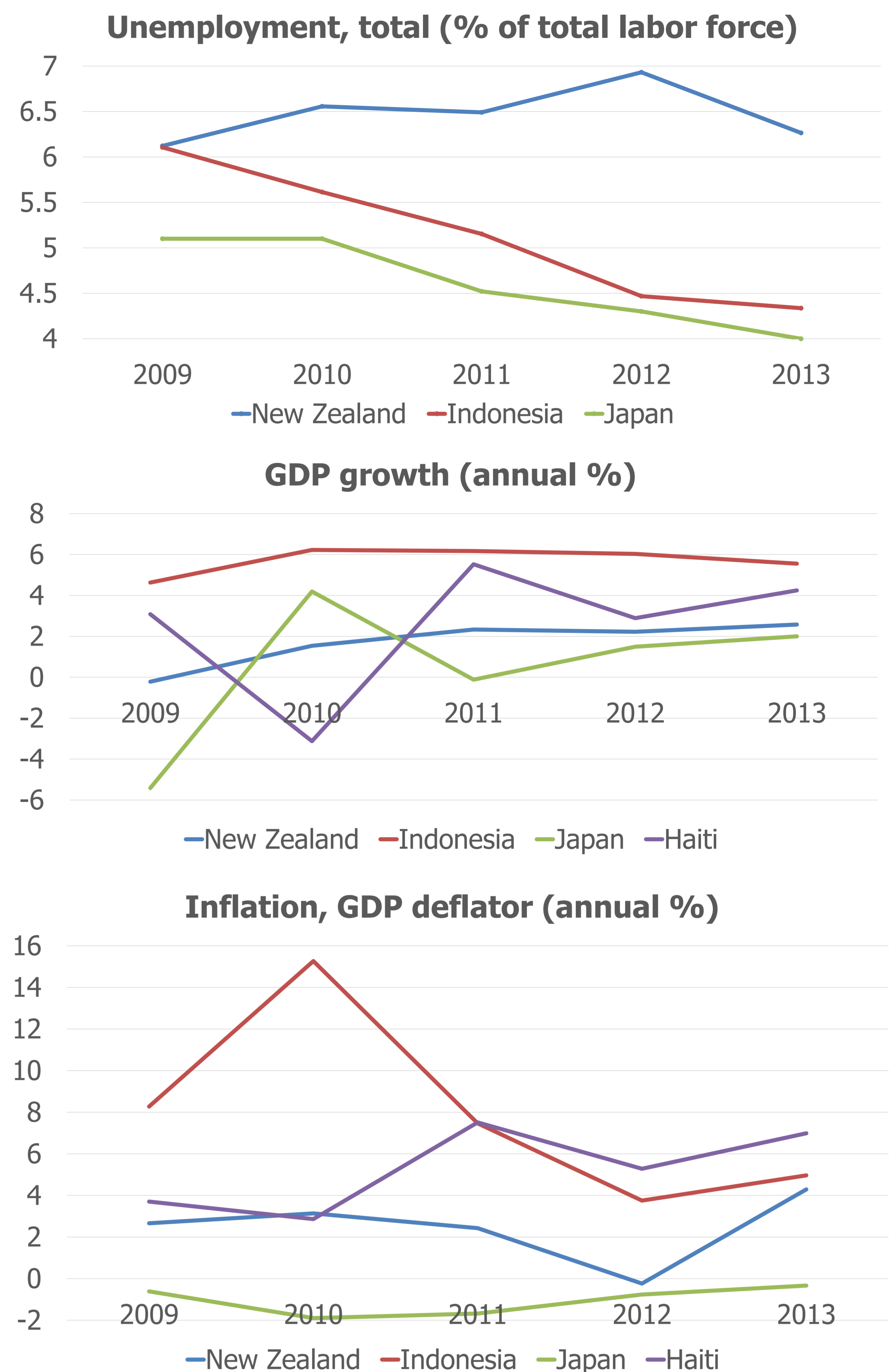


Conclusion and Policy Implication

- Developed countries are less affected and recovered faster because of:
 - more sophisticated financial market, which provide the country with better insurance
 - higher foreign reserves
 - greater degree of investment to technology which prevent large scale of death and injured



Findings and Results

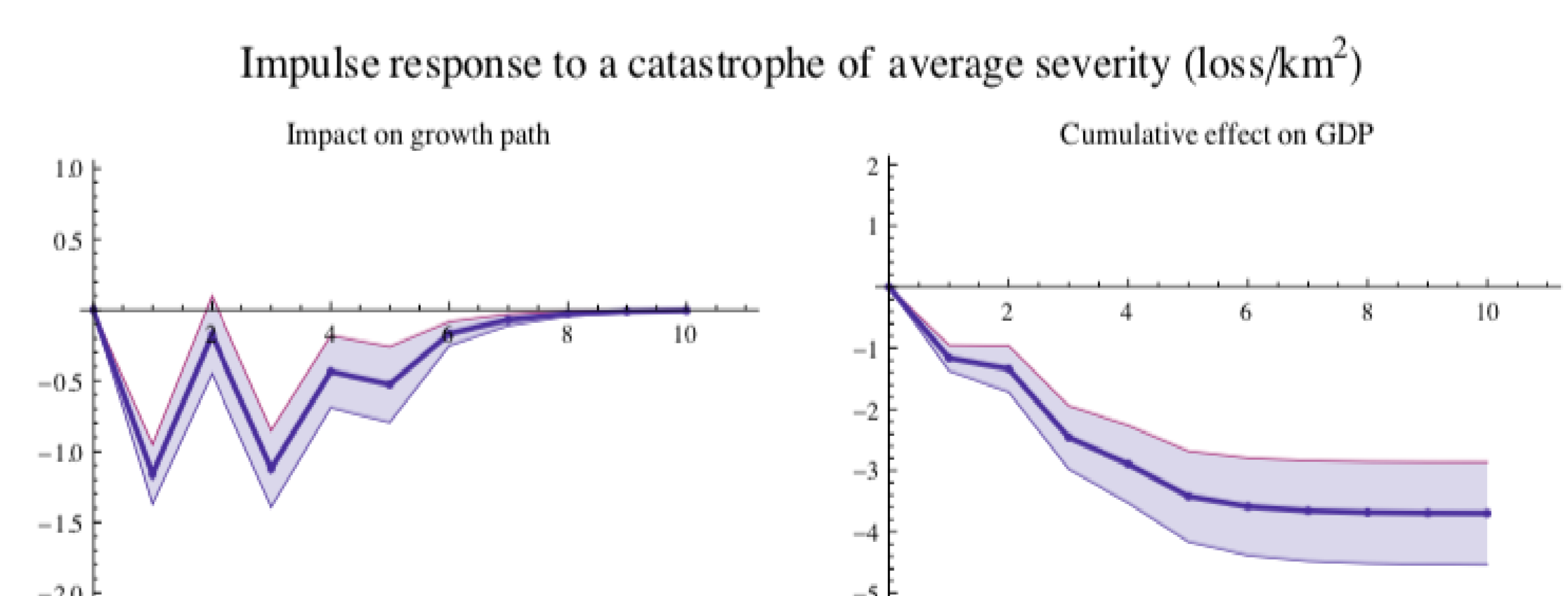


Source: World Bank

Economic Analysis

- The results show that natural disasters will not necessarily bring damage to economy (especially for developed countries)

	Japan	New Zealand	Haiti	Indonesia
GDP growth rate	4%	1.5%	-3%	6%
Unemployment rate	5.1%	6.5%	13%	5.6%
Inflation	-2%	3%	1%	15%



- Short term: All countries had immediate economic response to the earthquake. However the effect for developed countries were not big.
- Medium term: Japan and New Zealand started recovering in medium term quickly, while Indonesia and Haiti still observed a loss in the affected region.
- Long term: Haiti took the longest time to recover, which was about 4 years.