GLOBALIZATION OF LOCAL RISKS THROUGH INTERNATIONAL INVESTMENTS

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INTRODUCTION

- Enhanced trade and investments have been one of the significant developments of regional integration in Asia during the recent decades.
- Countries that are successful in attracting global investments are also highly vulnerable to natural hazards and related losses. This has opened up doors to an important, inescapable and hidden phenomenon of 'globalization of local risks'.
- There is more chance now for the domestic risks (i.e. risks from natural hazards, internal security, political uncertainty, social insecurity) to become global.
- Foreign direct investments (FDI) affected by local risks could multiply risks in magnitude and spill over into international markets with financial implications, affect the credibility of companies, and the credibility of the countries where investments are affected.
- Understanding and addressing such globalization of local risks is even more important today as more countries in Asia are attracting foreign investments but are yet to fully improve their disaster risk reduction and climate change readiness.
- In this context, important questions for the foreign investing entities are a) are the investments fully aware about the local risks, b) what measures have to be taken, including the criteria employed in conducting risk assessments, to mitigate the local risks from spilling over beyond the boundaries of countries where investments took place, and c) what it means for the risk assessments and risk communication?

FOREIGN INVESTMENTS AND RISKS IN ASIA

- FDIs are an important vehicles for the globalization of local risks as FDIs in Asia stood at 460 b USD in 2016, more than doubled from 1990. Top 20 countries of World Risk Index (WRI) and Climate Risk Index (CRI) have attracted an FDI of 243 and 203 billion USD respectively in 2016 (Table 1).
- In the same year, the disaster losses in these countries were 1.8 and 51 billion USD respectively, hence FDIs are potentially affected by risks in these countries.

Table 1. Disaster and climate risks with corresponding insured losses and foreign direct investments in selected Asian countries in 2016

Country	WRI (Rank)	CRI (Rank)	Non-life insurance claims (m USD)	Reinsurance claims (m USD)	Economic damage (000 USD)	FDI inflows (billion USD)
Australia	4.24 (121)	42.17 (31)	22090.4	2031.9	635	47.7
Bangladesh	19.57 (5)	27 (13)	85.1	n/a	750	2.3
Cambodia	16.92 (8)	95.17 (111)	8.1	n/a	n/a	2.5
China	6.81 (80)	23.83 (12)	73942.3	41199.8	44918	134
India	7 (75)	18.33 (6)	7799.2	1889.9	2574	44.5
Indonesia	10.49 (33)	46.17 (37)	2569.5	417.8	233	3.9
Japan	13.47 (17)	57.5 (54)	45716.9	3053.0	20200	11.4
Lao PDR	5.69 (100)	109.5 (120)	n/a	n/a	0.05	1
Malaysia	6.47 (89)	65.5 (72)	3461.1	145.4	132	11.3
Myanmar	9.06 (42)	57.17 (3)	n/a	n/a	17	3
New Zealand	4.42 (119)	78.17 (96)	1372.1	4200.0	3925	1.9
Pakistan	7.11 (73)	50.83 (40)	33.9	31.9	2000	2.5
South Korea	4.80 (113)	60.83 (60)	59956.0	48555.5	274	12
Sri Lanka	7.52 (63)	11.5 (4)	277.2	122.9	1220	0.9
Thailand	6.35 (91)	37.5 (20)	3709.2	1270	145	2
The Philippines	27.69 (3)	31.33 (16)	821.9	690.6	185	6.9
Vietnam	12.84 (18)	15.33 (5)	578.0	50.0	846	12.6

Source: Prabhakar, 2018. Climate Fragility Risks and their Implications for Human Security: Case Studies from Asia. IGES Research Report. IGES: Hayama, Japan.

- Climate change a threat multiplier i.e. it can exacerbate risks that are already present on the ground.
- Foreign investments face uncertain risks in new territories where information on local risks of natural hazards and climate change implications are hard to obtain.
- FDIs face uncertainties in physical events and uncertainties in the climate policy that governments may adopt which is constantly evolving slower than businesses prefer.
- Climate change could contribute to risk amplification by acting as a catalyst for risks to compound from local to global level. Such risk amplification depends on how the risk information is shared by the stakeholders and how the society responds to risk i.e. what kind of risk management options are employed.
- Insurance markets could contribute to risk amplification as risks accumulate when one moves from the primary insurers (local insurance companies), to reinsurers to retrocessionaires.
- Due to interconnected nature of insurance markets from local to global level, only a fraction of the indemnity may remain in a country's boundaries and significant part of it may move out to the global markets leading to ' London market spiral'.

METHODOLOGY

- This research is based on review of literature, analysis of data on the trends of international investments into developing and vulnerable countries in Asia, results of an online questionnaire survey conducted with the business entities in Japan.
- 250 responses were obtained from 1000 businesses in Japan. The responses were treated as opinions of the respondents rather than that of the entities they belong to.
- Statistical Package for Social Sciences (SPSS) was used for cross-tabulation, conducting Chi-Square test of association, and Mann-Whitney U test to test significant difference between groupings of entities for their responses to rated questions.
- Multiple linear regression, binomial logistic regression, multinomial logistic regression and ordinal regression analysis was done to test relationship between the firms characteristics and risk management attributes.
- Climate Fragility Risk Index (CFRI) was constructed to assess and compare country's' ability to address issue of globalization of local risks. The CFRI was developed as compound index of 7 indicators comprising of baseline water stress, climate risk index, % population affected by migration and displacement, food price volatility, % population affected by sea level rise, regulatory quality and insured claims.

RESULTS

- Firms invest in risky geographical regions for various reasons (Figure 1). Majority of the firms were risk seeking (57%) while the rest were either risk averse or risk aware but were not able to assess the risks appropriately and hence were affected by the investment risks.

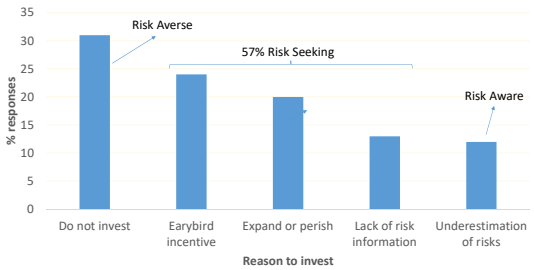

Figure 1. Risk topology of firms investing in risky geographies

- Chi-square analysis (Table 2) indicated statistically significant association between firm's basic characteristics (e.g. size of entities, Corporate social responsibility operations, % domestic revenue and DRR standards) and risk management characteristics (e.g. if firms contribute to local or global risks, if they incorporate disaster and climate change into their business risk assessments etc.).
- CSR appears to show highest association with risk management characteristics followed by presence of DRR standards, size of the entity and % domestic revenue. Firm's propensity to spread risk is not associated with none of its characteristics included in the study.

Table 2. Association between firm's basic characteristics and their ability to address risks

	Size of the entity		CSR operations		% domestic revenue		DRR Standards	
χ^2 statistic	χ^2	p value	χ^2	p value	χ^2	p value	χ^2	p value
CSR of the partner	14.5	0.024*	36.7	0.000**	9.8	0.044*	13.7	0.008*
Expand or perish	15.6	0.200	126.0	0.000**	30.8	0.000**	5.7	0.685
Observed impact trend	9.6	0.380	82.3	0.000**	6.7	0.350	26.5	0.000**
Contribution to globalization of local risks (GLR)	18.8	0.005*	30.9	0.000**	10.6	0.030*	13.2	0.010*
Compounding of risks leading to GLR	14.8	0.020*	21.4	0.000**	9.9	0.040*	9.8	0.043*
Factors for GLR	31.2	0.028*	18.8	0.093*	12.6	0.400	11.3	0.502
Contribution to local risks	8.1	0.228	26.8	0.000**	11.7	0.020*	16.8	0.002*
Preference to spread risk	16.9	0.320	6.6	0.762	10.2	0.420	9.3	0.501
Propensity to assess risks	29.5	0.001*	17.7	0.007*	11.3	0.080*	31.9	0.000**
CC risk assessments	15.1	0.019*	55.9	0.000**	7.6	0.109	19.9	0.001*
GLR in risk assessments	18.1	0.006*	31.0	0.000**	15.8	0.003*	28.8	0.000**
Presence of a risk management strategy	49.6	0.000**	54.9	0.000**	5.9	0.205	35.5	0.000**
Partner's risk management strategy	27.9	0.000**	45.9	0.000**	15.1	0.004*	20.8	0.000**

** statistically significant at p=<0.001; * statistically significant at p=0.05. Numbers in red color are non-significant associations. Source: Prabhakar, 2018

- Regression analysis indicated corporations with CSR operations have 79% less probability to contribute to local risks, 86% probability to include climate change in risk assessments, 72% likely to have some kind of risk management strategy in place, and 68% chances that they may consider globalization of local risks in their risks assessments (Table 3).

Table 3. Association between firm's basic characteristics and their ability to address risks

Dependent variables \ Independent variables	Staff size	% Dom Revenue	Int. Inv.	CSR	Partners	DRR standards
International investments contributing to GLR						0.71 (42%)
Firms contributing to local risks				3.62 (79%)		0.71 (42%)
Risk assessments done			2.86 (74%)			1.58 (61%)
Climate change in risk assessments				5.92 (86%)		0.71 (42%)
GLR in risk assessments				2.10 (68%)		0.64 (39%)
Risk management strategies	0.77 (44%)			2.56 (72%)		0.63 (39%)
Risk communication					1.81 (65%)	0.34 (25%)
Business in vulnerable regions						
Lack of risk information		0.78 (44%)	0.20 (17%)			
Expand or perish						

CLIMATE-FRAGILITY RISKS OF COUNTRIES

- Climate fragility risk index (CFRI) indicated that the countries in South Asia and East Asia have high fragility risks that may pre-dispose them to contribute to globalization of local risks than other Asian countries (Figure 2).
- CFRI for developing countries stood at 0.76 while it was 0.66 for the developed countries indicating the nexus between development and climate fragility.
- This underlines the need for country-specific strategies for entities looking for opportunities to expand their businesses.

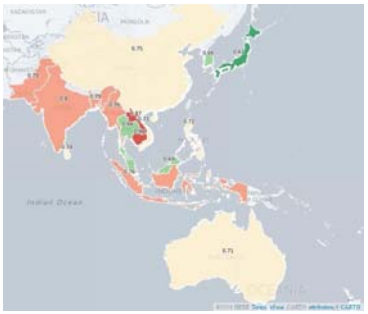

Figure 2. Climate fragility risk index (CFRI) of selected countries in Asia

CONCLUSIONS

- Globalization of local risks is an emerging phenomenon that all countries and investment entities should have to be cognizant about and invest in risk assessment and management options to mitigate the risk.
- Both the countries in investments are being made and the investing entities contribute to the phenomenon.
- Transparent sharing of risk information among the stakeholders involved in investments is an essential first step to mitigate the globalization of local risks.

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