

In the Eye of the Storm

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In the Eye of the Storm: Financial Intermediation in the Face of Natural Disasters

Summary

This dissertation studies how institutions are affected by natural disasters and how they react to disasters. Utilizing disaster data from regional to world level and collecting economic data from specific institutions to macroeconomic variables, I explore three related issues. First, I use regional earthquake data to study the impact of disaster experiences on bank risk taking. I find that banks with more disastrous experiences become more conservative and are not willing to undertake risky businesses, which is harmful to economic development. In addition, banks can become biased against poorer borrowers and reduce lending to them, worsening the inequality issue. Communities with stronger disaster experiences are dwelt with fewer rich people and have less deposit, weakening the momentum for future development. We therefore need to be aware of these downsides and try to stimulate banking and reduce inequalities if those disaster-prone regions are important for a country's long-term strategy.

Next, I study how banks strategically allocate assets after natural disasters. How do banks satisfy the sudden increase in loan demand after disasters? I argue that banks make use of this increase in credit demand by charging higher interest rates for demanded loans and then issue more loans. I find the existence of the asset allocation behavior using a difference-in-difference analysis. Further, using a multiple-asset dynamic credit rationing model, I show how banks can allocate different types of loans and securities to satisfy public needs but also benefit banks' themselves.

Last, I use worldwide disaster data to examine the role of governmental institutions in disaster relief. I find that countries differ largely in their disaster-relief efficiencies, with richer countries performing better than poorer countries. There is a positive relationship between efficiency and institutional quality. Indicators of good governance have significantly positive effects on efficiencies. Importantly, the stochastic frontier model captures the negative relationship between rescuing people and reducing material damage. I also document that emerging countries, such as China and India, experience increases in their disaster-mitigation efficiencies by improving their governance qualities in the last decades.