Managing Extreme Climate Change Risks through Insurance

In recent years, the damage caused by natural disasters has increased worldwide; this trend will only continue with the impact of climate change. Despite this, the role for the most common mechanism for managing risk – insurance – has received little attention. This book considers the contribution that insurance arrangements can make to society's management of the risks of natural hazards in a changing climate. It also looks at the potential impacts of climate change on the insurance sector, and insurers' responses to climate change. The author combines theory with evidence from the rich experience of the Netherlands together with examples from around the world. He recognizes the role of the individual in preparing for disasters, as well as the difficulties individuals have in understanding and dealing with infrequent risks. Written in plain language, this book will appeal to researchers and policy makers alike.

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Preface

The importance of the topical theme of climate change and related natural disaster risks in the scientific and policy-making debate has increased considerably since I started my work on this theme in 2006. This debate has been fuelled by images of catastrophes which travelled around the globe and entered the homes of many people via mass media. The immense human suffering caused by Hurricane Katrina in the USA, the severe floods in Pakistan and Thailand, and the earthquake and tsunami-related flooding in Japan readily come to people's minds as recent examples of the potentially destructive force of nature. Even though large natural disasters are low-probability events, such disasters happen almost every year on a global scale, and many smaller extreme weather events that cause significant losses occur regularly. Records by insurers show that natural disaster losses have been trending upwards over the last decades, and it has been projected that these trends will continue in the future as a result of climate change.

Our societies are still learning about how to adequately prepare for disasters and about how to manage the economic risks that extreme weather events pose. Research can speed up this learning process and with this book I hope to make my own contribution to the expanding literature on this topic. While there have been a lot of discussions among insurers and public policy makers about the challenges posed by natural disasters and climate change, progress in the implementation of practical solutions to address these risks has sometimes been cumbersome. Nevertheless, encouraging steps can be observed. For example, in July 2012 President Obama signed the Biggert–Waters Flood Insurance Reform Act of 2012 which reauthorizes and reforms the National Flood Insurance Program (NFIP) in the USA. Among other changes, this reform implies that the NFIP has to move to actuarial insurance rates and improve its financial risk management and policies for flood risk mitigation, which should improve the ability

of the Program to cope with future flood disasters. Several academics in the USA who have conducted and published extensive studies on the operation of the Program have provided an important knowledge base for the NFIP reform. Another example comes from the Netherlands where – partly motivated by the research conducted for this book – the introduction of an insurance arrangement for flood damage has been discussed extensively over the last few years. After this book went to press, a Dutch insurer introduced a catastrophe risk insurance policy that covers flood damage. This is an important step forward for the insurability of flood damage in the Netherlands, where insurers have excluded flood coverage from property insurance for the past 60 years. The design of the new insurance product follows some of the proposals made in this book, such as premiums that reflect actual flood risk and combining the insurance policy with incentives for policyholders to limit risk. Homeowners who implement measures that mitigate flood risks are eligible for a discount on their flood insurance premium. However, it remains to be seen whether or not this new catastrophe insurance can achieve a broad nationwide insurance coverage for flood risk, because of its relatively high premium and limited coverage. Exploring a public–private flood insurance scheme, as has been outlined in this book, could be a way forward to arrive at more extensive and affordable coverage for the risk of flooding. These recent developments in the USA and the Netherlands can be seen as an encouragement for bringing together academics and policy makers with the objective of increasing the resilience of our societies to future disasters.

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