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978-1-107-08728-6- The Economics and Uncertainties of Nuclear Power

François Lévêque

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## The Economics and Uncertainties of Nuclear Power

Is nuclear power a thing of the past or a technology for the future? Has it become too expensive and dangerous, or is it still competitive and sufficiently safe? Should emerging countries invest in it? Can we trust calculations of the probability of a major nuclear accident? In the face of divergent claims and contradictory facts, this book provides an in-depth and balanced economic analysis of the main controversies surrounding nuclear power. Without taking sides, it helps readers gain a better understanding of the uncertainties surrounding the costs, hazards, regulation and politics of nuclear power. Written several years on from the Fukushima Daiichi nuclear disaster of 2011, this is an important resource for students, researchers, energy professionals and concerned citizens wanting to engage with the continuing debate on the future of nuclear power and its place in international energy policy.

FRANÇOIS LÉVÊQUE is Professor of Economics at Mines ParisTech and a part-time professor at the Robert Schuman Centre for Advanced Studies (European University Institute). He has advised many international bodies on energy policy and the economics of regulation, including the International Energy Agency, the OECD and the European Commission.

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## Abbreviations

ANRE	Agency for Natural Resources and Energy (Japan)
ASN	Autorité de Sûreté Nucléaire
CEA	Commissariat à l'Energie Atomique
EDF	Electricité de France
Ensreg	European Nuclear Safety Regulation Group
EPR	European Pressurized Reactor
GDP	Gross Domestic Product
IAEA	International Atomic Energy Agency
INES	International Nuclear Event Scale
INPO	Institute of Nuclear Power Operations
IRRS	International Regulatory Review Service
IRSN	Institut de Radioprotection et de Sûreté Nucléaire
JNES	Japan Nuclear Energy Safety Organization
MIT	Massachusetts Institute of Technology
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NRC	Nuclear Regulatory Commission
NSC	Nuclear Safety Commission (Japan)
NSG	Nuclear Suppliers Group
OECD	Organisation for Economic Cooperation and Development
UAE	United Arab Emirates