Divergence and Convergence of Automobile Fuel Economy Regulations

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A Comparative Analysis of EU, Japan
and the US

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*For my parents, who have been giving me
enduring supports*

Preface

This book was initially born out of the questions I formulated during my time as a Ph.D. student at Tokyo Institute of Technology throughout 2007–2012. As many scholars started to engage in the role of business actors in global environmental governance, discussions associating with the ‘private environmental governance’ became popular research foci. These discussions look at business efforts to ‘green’ themselves, and many address ‘beyond the state’ activities of business involvement in international environmental politics, i.e. how business communities establish codes of conduct or certification schemes to promote environmentally friendly products. Then I began to wonder why business sometimes chose to support stringent environmental regulation at home country and attempt to internationalize such regulatory standards, over international business networks to coordinate their efforts to green themselves? What is such business, and would it also happen in climate change issue? Which other non-state actors are crucial to promote such business supports for stringent environmental regulation at home country? Who gets, what and how, when such business supports are happening?

Year 2007 marked remarkable changes in fuel economy regulations for passenger cars in Europe, Japan and the US: while Europe and Japan progressively started to lead the regulations, the US for the first time in 20 years raised the corporate average fuel economy standards under the Energy Independence and Security Act. At the same time, the ‘Bali roadmap’ was adopted under the international climate negotiation taken place at the United Nations Framework Convention on Climate Change (UNFCCC) to set processes to finalizing a binding agreement at the 15th Conference of the Parties (COP 15) in 2009. Although the COP15 resulted in a major disappointment, fuel economy regulations in Europe, Japan and the US continued to evolve and the regulatory standards for 2020–2025 started to converge throughout 2009–2012.

This book reveals the mechanism of the regulatory convergence of car fuel economy regulations between Europe, Japan and the US by drawing upon constructivist theory of International Relations and literatures that focus on business competition and environmental regulations. It offers new understandings on the topic of ‘cars and carbon’ by:

- dealing with the emerging phenomenon of convergence of car fuel economy regulations,
- addressing the role of the business actor in pushing towards solution of climate change issue,
- proposing the new model of ‘Agency with and beyond the states’,
- providing rich case studies from Europe, Japan and the US.

To this end, this book is structured as follows.

Chapter 1, ‘Introduction’ first highlights the automobile industry and global climate change in order to provide an issue background.

Then, Chap. 2, ‘Business Actors and Global Environmental Governance’ shows where the proposed monograph stands in the discipline of political science, and demonstrates how this book would advance the study of business actors in global environmental governance.

Chapter 3, ‘Construction of European Fuel Economy Regulations for Passenger Cars’ looks at how Europe’s climate policies for car CO₂ emissions have been constructed. It asks, how and why has the European Union (EU) introduced these standards, even before Japan and the United States? What factors influenced these regulations, and which actors were instrumental in the decision-making process?

Chapter 4, ‘Construction of Japanese Fuel Economy Regulations for Passenger Cars’ argues that Japan adopted its stringent fuel economy regulation primarily because of industry competitiveness, which are motivated by stringent environmental regulations in export markets and encouraged by its tradition of ‘co-regulation’ and ‘corporatism’ to enhance the regulations. An earlier version of this chapter appeared in Masahiko Iguchi and Karl Hillman (2012) ‘The Development of Fuel Economy Regulations for Passenger Cars in Japan’. In Nilsson et al. (eds.), *Paving the Road to Sustainable Transport: Governance and innovation in low-carbon vehicles*. London: Routledge, pp. 57–69.

Chapter 5, ‘Construction of the US Fuel Economy Regulations for Passenger Cars’ addresses why, despite the US being the world’s first country to introduce fuel economy regulations, has US fuel economy regulation been stagnant for more than 20 years? What political dynamics pushed the former Bush Administration, which had withdrawn from the Kyoto Protocol negotiation in 2001, to improve the fuel economy regulation standard? Why are the recent US fuel economy regulations now converging with the Japanese and European standards?

Chapter 6, ‘Comparative Assessment’ compares and contrasts fuel economy regulations that draw implications to the target for 2015 and beyond, by comparing and contrasting fuel economy regulations among three case studies.

Lastly, Chap. 7 ‘Conclusion’ provides broader implications to theories, explores applicability of ‘agency with and beyond the state’ model to other sectors, and to climate governance as a whole, by answering research questions.

This book is intended for political scientists, especially scholars of global environmental politics. Experts on climate change politics may be the most interested readers, but as the study features new aspects of private environmental governance, I hope that it would serve as a source for the wider environmental

study community. Also, I hope scholars of political economy who are interested in the role of the car industry, and researchers engaged in comparative research will find use for this book. The book can also serve for practitioners, including policy makers, informed activists, advisors, business community and related professionals.

Above all, I would be extremely honoured if any student, who accidentally picked this book in the university library, would be motivated to study global environmental governance after reading this book.

Kyoto
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Masahiko Iguchi

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Acronyms

AAM	American Automobile Manufacturers Association
ACEA	European Automobile Manufacturers' Association
APP	Asia-Pacific Partnership on Clean Development and Climate
BRICS	Brazil, Russia, India, China and South Africa
CAFE	Corporate Average Fuel Economy
CAN	Climate Action Network
CCA	US Clean Air Act
CFC	Chlorofluorocarbon
CLEPA	European Parts Manufacturers' Association
CME	Coordinated Market Economy
CO ₂	Carbon Dioxide
COP	Conference of Parties
DG	The Directorate-General, European Commission
EPA	US Environmental Protection Agency
EU	European Union
FSC	Forest Stewardship Council
FTA	Free Trade Agreement
g/km	Grams of CO ₂ per vehicle kilometre
GCC	Global Climate Coalition
GHGs	Greenhouse Gases
GM	General Motors
HEVs	Hybrid Electric Vehicles
ICE	Internal Combustion Engine
IR	International Relations
JAMA	Japan Automobile Manufacturers Association
KAMA	Korean Automobile Manufacturers' Association
km/L	Kilometre per Litre
LEV	California's low-emission vehicle regulation
LME	Liberal Market Economy
METI	Japanese Ministry of Economy, Trade and Industry
MLIT	Japanese Ministry of Land, Infrastructure, Transport and Tourism

MOE	Japanese Ministry of the Environment
mpg	Miles per gallon
MSC	Marine Stewardship Council
MVEG	Motor Vehicle Emission Group, European Community
NGOs	Non-Governmental Organizations
NSMD	Non-State Market Driven Governance
ODS	Ozone-Depleting Substances
PPPs	Public-Private Partnerships
R&D	Research and Development
SUV	Sports Utility Vehicles
TPP	Trans-Pacific Partnership
UAW	Union of Automobile Workers, the US
UNFCCC	United Nations Framework Convention on Climate Change
US	The United States
VDA	German Car Manufacturers' Association
VOC	Varieties of Capitalism
ZEVs	California's Zero-Emission Vehicles Regulation