

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

## TRADE, INVESTMENT, INNOVATION AND THEIR IMPACT ON ACCESS TO MEDICINES

The last two decades have seen great economic change in Asia and this has impacted upon the vexed question of access to affordable healthcare and medicines in many Asian states. In this book Locknie Hsu examines the issue of access to medicines in Asia from a fresh perspective which embraces trade and investment law, innovation, intellectual property law, competition policy and public health issues. Hsu explores the key evolving legal issues in these areas, including ASEAN integration, free trade agreement negotiations (such as those for the TPP), bilateral investment agreements, investor-State disputes and significant court decisions. The book goes on to present proposals for steps to be taken in addressing access to medicines in Asia and will be useful to academic researchers, regulators, lawmakers and global organizations involved in the issues surrounding access to affordable healthcare and medicines.

LOCKNIE HSU is Professor of Law at Singapore Management University, where she has been the recipient of five teaching awards. Previously she has worked with the Singapore Ministry of Trade and Industry as a legal consultant on trade issues including those arising under WTO and free trade agreement issues. She received her legal training from the National University of Singapore and Harvard University and is a member of the Singapore Bar. She is currently Chair of the Trade and Investment Group and a member of the Working Group on Harmonisation of Commercial Laws of the ASEAN Law Association, and co-rapporteur of the Committee on Sustainable Development and the Green Economy in International Trade Law, International Law Association. She is also a member of the editorial board of the Journal of World Investment and Trade.

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

CAMBRIDGE INTERNATIONAL TRADE AND  
ECONOMIC LAW

*Series editors*

Dr Lorand Bartels, *University of Cambridge*  
Professor Thomas Cottier, *University of Berne*  
Professor William Davey, *University of Illinois*

As the processes of regionalization and globalization have intensified, there have been accompanying increases in the regulations of international trade and economic law at the levels of international, regional and national laws.

The subject matter of this series is international economic law. Its core is the regulation of international trade, investment and cognate areas such as intellectual property and competition policy. The series publishes books on related regulatory areas, in particular human rights, labour, environment and culture, as well as sustainable development. These areas are vertically linked at the international, regional and national level, and the series extends to the implementation of these rules at these different levels. The series also includes works on governance, dealing with the structure and operation of related international organizations in the field of international economic law, and the way they interact with other subjects of international and national law.

*Books in the series*

*Trade, Investment, Innovation and their Impact on Access to Medicines: An Asian Perspective*  
Locknie Hsu

*The Law, Economics and Politics of International Standardisation*  
Panagiotis Delimatsis

*The WTO and International Investment Law: Converging Systems*  
Jürgen Kurtz

*Export Restrictions on Critical Minerals and Metals: Testing the Adequacy of WTO Disciplines*  
Ilaria Espa

*Optimal Regulation and the Law of International Trade: The Interface between Societal Values and WTO Law*  
Boris Rigod

*The Social Foundations of World Trade: Norms, Community and Constitution*  
Sungjoon Cho

*Public Participation and Legitimacy in the WTO*  
Yves Bonzon

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

*The Challenge of Safeguards in the WTO*

Fernando Piérola

*General Interests of Host States in International Investment Law*

Edited by Giorgio Sacerdoti, Pia Acconci, Mara Valenti and Anna De Luca

*The Law of Development Cooperation: A Comparative Analysis of the World Bank, the EU and Germany*

Philipp Dann

*WTO Disciplines on Subsidies and Countervailing Measures: Balancing Policy Space and Legal Constraints*

Dominic Coppens

*Domestic Judicial Review of Trade Remedies: Experiences of the Most Active WTO Members*

Müslüm Yilmaz

*International Organizations in WTO Dispute Settlement: How Much Institutional Sensitivity?*

Marina Foltea

*Public Services and International Trade Liberalization: Human Rights and Gender Implications*

Barnali Choudhury

*The Law and Politics of WTO Waivers: Stability and Flexibility in Public International Law*

Isabel Feichtner

*African Regional Trade Agreements as Legal Regimes*

James Thuo Gathii

*Liberalizing International Trade after Doha*

David Gantz

*Processes and Production Methods (PPMs) in WTO Law: Interfacing Trade and Social Goals*

Christiane R. Conrad

*Non-Discrimination in International Trade in Services: 'Likeness' in WTO/GATS*

Nicolas Diebold

*The Law, Economics and Politics of Retaliation in WTO Dispute Settlement*

Edited by Chad P. Bown and Joost Pauwelyn

*The Multilateralization of International Investment Law*

Stephan W. Schill

*Trade Policy Flexibility and Enforcement in the WTO: A Law and Economics Analysis*

Simon A.B. Schropp

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

TRADE, INVESTMENT,  
INNOVATION AND THEIR  
IMPACT ON ACCESS  
TO MEDICINES

An Asian Perspective

LOCKNIE HSU

*School of Law, Singapore Management University*



Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

CAMBRIDGE  
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of  
education, learning and research at the highest international levels of excellence.

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781107072732](http://www.cambridge.org/9781107072732)

© Locknie Hsu 2016

This publication is in copyright. Subject to statutory exception  
and to the provisions of relevant collective licensing agreements,  
no reproduction of any part may take place without the written  
permission of Cambridge University Press.

First published 2016

*A catalogue record for this publication is available from the British Library*

ISBN 978-1-107-07273-2 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of  
URLs for external or third-party internet websites referred to in this publication,  
and does not guarantee that any content on such websites is, or will remain,  
accurate or appropriate.

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

*To Basil  
and my dear, late parents*

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---



CONTENTS

<i>List of figures</i>	<i>page</i> xiv
<i>List of tables</i>	xv
<i>Foreword by Chief Justice Sundaresh Menon</i>	xvii
<i>Preface</i>	xxi
<i>Acknowledgements</i>	xxiv
1 Economic integration, Asia and medicines	1
1.1 Introduction – globalization and Asia	1
1.2 Aging Asia: healthcare needs	4
1.3 Diseases in Asia and the Pacific region	6
1.4 Poverty in Asia	8
1.5 The growth of National Health Expenditure	9
1.6 Medicines, R&D and Asia – an overview	16
1.7 Economic integration activities in Asia and health matters: an overview	22
1.8 TRIPS-plus requirements and Asia – an introduction	24
1.9 New legal risks – potential of investor-state claims	26
1.10 Syncopation between the law, science and social policy	26
1.11 The role of international organizations	27
1.12 The global and regional context	29
1.13 Economic reform and IPRs in Asia	41
1.14 Conclusion	44

<b>2</b>	<b>Access to medicines, innovation and the debate at the multilateral level</b>	<b>46</b>
2.1	Globalization, trade and public health dimensions: The context	46
2.2	Government reviews on the pharmaceutical sector and patents	56
2.3	International patent commitments: from Paris to Uruguay and beyond	57
2.4	The promise of TRIPS: flexibilities for members	58
2.5	Regulatory tensions	62
2.6	The place of patents in the debate	66
2.7	A very contentious debate	81
2.8	Other relevant elements of the debate	83
2.9	Conclusion	99
<b>3</b>	<b>Trade, investment and medicines: the existing legal and policy construct</b>	<b>101</b>
3.1	The existing legal and policy construct	101
3.2	ASEAN – the need for greater clarity in the collective legal and policy construct	103
3.3	Key elements	103
3.4	Exhaustion of rights and parallel imports	159
3.5	Conclusion	162
<b>4</b>	<b>Treaties in Asia: embedded risks and lessons from disputes elsewhere</b>	<b>164</b>
4.1	Legal obligations in TRIPS	164
4.2	Examples of TRIPS disputes in the WTO system	165
4.3	TRIPS-like and TRIPS-plus commitments in Asia FTAs	167

CONTENTS xi

4.4	FTAs and legal risks arising from negotiated language	168
4.5	Non-FTA mechanisms with a bearing on national laws	172
4.6	Types of TRIPS-plus FTA provisions	172
4.7	The treaty-based ISDS system – legal risks and concerns	201
4.8	“Counterweight” provisions relevant to the regulation of the pharmaceutical industry	214
4.9	Conclusion	215
<b>5</b>	<b>The importance of exceptions and flexibilities</b>	<b>219</b>
5.1	Introduction	219
5.2	Exception provisions – general considerations	221
5.3	Applicability of GATT 1994 Article XX to WTO Accession Protocol commitments: lessons learnt	224
5.4	Safe harbours: Asian treaties’ general exceptions	225
5.5	TRIPS principles and objectives in FTAs	227
5.6	TRIPS exceptions and flexibilities	228
5.7	Using a non-violation provision to safeguard the use of exceptions and limitations	266
5.8	Investment treaty general exceptions and expropriation exceptions relevant to health	268
5.9	Security exceptions	273
5.10	Interpretational treaty signals	275
5.11	Negotiating space	277
5.12	Conclusion	281
<b>6</b>	<b>Innovation and competition</b>	<b>283</b>
6.1	Innovation, competition: seeking a balance	283

6.2 Patents and competition law – necessary bedfellows	286
6.3 Emerging case law on competition law and pharmaceutical patentees’ practices	289
6.4 The European Union: towards increased competition enforcement in pharmaceuticals sector	294
6.5 Asia’s first pay-for-delay case	297
6.6 Developments in other jurisdictions	298
6.7 Connecting refusals to licence patents and the essential facilities doctrine: the next logical step?	302
6.8 Competition law and the pharmaceutical sector in Asia – an evolving regional landscape	306
6.9 Conclusion	332
<b>7 Setting new directions: the need for innovative legal and policy solutions</b>	<b>334</b>
7.1 The need for new paradigms and strategies	334
7.2 A brief inventory of major initiatives	337
7.3 The evolving role of the state as a provider of incentives	342
7.4 The evolving paradigm in R&D: public-private partnerships to promote public health and innovation	344
7.5 Exploring new funding models	348
7.6 The evolving role of business	352
7.7 Rethinking clinical data protection	353
7.8 Treaty-based approaches	366
7.9 The use of differential or tiered pricing: affordable prices and facilitative aspects in trade and investment treaties	377

CONTENTS xiii

7.10	Dispute resolution provisions for public health	387
7.11	Conclusion	388
<b>8</b>	<b>What next?</b>	<b>389</b>
8.1	Advancing access: important questions and trends for Asia to consider	389
8.2	Clarifying critical matters in the multilateral trade system	389
8.3	New incentives – new ways of rewarding conduct that contributes to greater access	404
8.4	Timely evaluations and coherent policy-making in growing areas	405
8.5	Can industry do more?	411
8.6	Can governments do more?	418
8.7	Regional integration and pharmaceutical initiatives	422
8.8	Watch this space: BRICS and health	430
8.9	Encouraging new alliances and collaborations	432
8.10	Preparing for the debate ahead: legal education and capacity-building	435
8.11	Conclusion	436
	<i>Index</i>	439

FIGURES

4.1	Example of an “A3” sequence	<i>page 195</i>	
4.2	Section 12A “Category B” application mechanism		201

TABLES

1.1 Asian life expectancy	<i>page</i> 5
1.2 Estimated and projected population aged 60 years or over in Asia for 1970, 2000 and 2050, by percentage of world population	5
1.3 Growth in pharmaceutical expenses in Asia (2000–2010)	10
1.4 Healthcare costs (public) – selected Asian countries	12
1.5 Examples of prices of brand-name and generic medicines	16
2.1 Bound tariffs for pharmaceutical products of ASEAN and selected Asian countries	84
2.2 Applied MFN tariffs for pharmaceutical products of ASEAN and selected Asian countries	85
3.1 Patentability of second/subsequent uses in ASEAN and selected non-ASEAN countries	130
3.2 ASEAN pharmaceutical approval systems	138
3.3 Pharmaceutical approval systems in selected Asian countries (non-ASEAN)	140
3.4 ASEAN pharmaceutical laws and data protection	147
3.5 Data exclusivity protection in selected Asian (non-ASEAN) countries	152
3.6A Legislative patent periods in ASEAN and other selected Asian countries	157
3.6B Legislative patent periods in selected Asian countries (non-ASEAN)	158
4.1 Examples of recent investor-state claims brought against ASEAN states	213
5.1 Examples of Asian trade treaties incorporating general exceptions	226
5.2 Compulsory licenses granted in Asia	256
8.1 Examples of types of public-use/compulsory licensing grounds in Asia	395

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---



Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

## FOREWORD

The world has witnessed several monumental shifts in international intellectual property (IP) law over the course of the last two decades. Before the World Trade Organisation Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), states had almost unbridled discretion in defining the parameters of their domestic IP rights protection. The level of protection accorded to patents affecting pharmaceutical industries in developing countries was often seen as underwhelming. Indeed, pharmaceutical inventions were non-patentable in more than forty countries. With most major pharmaceutical corporations located in developed countries, it was in the economic interest of developing countries to allow the generic drug market to flourish, thus keeping the cost of pharmaceuticals low and helping to maintain adequate access to affordable medicine. On the other hand, developed countries had the opposite concern of seeking to afford their pharmaceutical corporations market exclusivity for breakthrough inventions. If profits were eroded by the emergence of generic drugs in developing countries, this might also chill the appetite to invest in research and development.

The successful conclusion of TRIPS in 1995 was an important milestone for the protection of IP rights on a global scale, setting minimum standards for the protection of IP rights and striking a balance of sorts between the pharmaceutical industry's interest in recouping the hefty research and development costs associated with drug inventions and the health priorities of developing countries seeking affordable medicine. Given the high stakes involved on all sides, it is perhaps inevitable that TRIPS incorporated various exceptions and ambiguities. As a result post-TRIPS international IP norms may have fallen short of the levels originally envisaged by the developed countries. The evolution of international IP law since TRIPS has been characterized by the efforts of developed countries to achieve the standards of protection they had anticipated or perhaps hoped for from TRIPS but on a piecemeal, bilateral basis rather

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

xviii

## FOREWORD

than within a single multilateral forum. In a sense, TRIPS has become just the beginning of the quest to harmonize international IP law and to establish new and higher patent protection benchmarks for pharmaceuticals.

Over the last two decades, there have been important developments with efforts to dilute the exceptions and flexibilities TRIPS had accorded to developing countries by striking fresh bargains conferring trade benefits for enhanced IP protection under bilateral Free Trade Agreements (FTAs). Known as “TRIPS-Plus” provisions, these IP protection commitments go beyond the obligations WTO members had agreed to multilaterally under TRIPS. Much has been written in this regard, but few have significantly shed light on the implications of TRIPS-Plus provisions across Asia, and in this regard, I consider Locknie’s book a welcome addition to the existing body of literature on the subject.

Locknie’s book is also noteworthy as it comes at a time where we are beginning to see the balance of IP trade slowly shift from the United States to Asia. In the last decade especially, innovation has come increasingly to be recognized as an important plank supporting economic development, and as such the adoption of TRIPS-Plus provisions can sometimes be seen as a means not only to secure trade benefits but also to encourage innovation. Conversely, an aggressive push for strict IP protection by developed countries may need to be moderated as they become increasingly reliant on Asian innovations.

The book first sets the scene with an overview of the diverse issues arising from the intersection between trade and investment law (an area in which Locknie has written extensively), IP law and public health. Locknie then highlights some of the potential pitfalls that TRIPS may pose to Asian countries due to its latent ambiguities, in particular the controversial issue of whether genetic material is patentable, and it offers Asian policy-makers useful recommendations pertaining to this debate by drawing upon lessons emerging from significant recent litigation in the US, EU and Australia. The book also provides a comprehensive and detailed survey of the existing legal frameworks that Asian nations have adopted towards various matters including the patentability of living matter, patentability of new uses of existing medicine, patent extension rules, patent linkage and data exclusivity protection laws and regulations.

Locknie’s insightful analysis of the divergent scope and content of the legal frameworks across Asian nations in relation to these issues will certainly be of great use to governments considering the re-evaluation of

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

FOREWORD

xix

their patent regimes as well as to pharmaceutical companies intending to invest in Asia.

Policy-makers will also find useful a variety of exception clauses Locknie suggests might be included in FTAs. For instance, her detailed analysis of how the failure to include a *Bolar* exception in an FTA (which specifically exempts certain acts from constituting patent infringement) could delay the entry to the market of generic pharmaceuticals in an Asian party is astute and succinct. Finally, her study of the diverse and myriad set of TRIPS-Plus provisions in existing FTAs that Asian nations have entered into with their counterparties is useful in yielding ideas and options for countries aspiring to enter into similar FTAs while seeking to maintain an appropriate balance between national trade interests and the public interest in ensuring access to affordable medicine.

I am certain her scholarly discussion and careful review of the range of options available on the negotiating table will go a long way to level the playing field for all parties involved. I welcome this book and congratulate Locknie on having completed a remarkable and very useful piece of scholarship.

*Sundaresh Menon*

*Chief Justice*

*Supreme Court of the Republic of Singapore*

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

## PREFACE

Additional web-based resources, such as links to further relevant Asian/ASEAN materials, will be available at [www.cambridge.org/9781107072732](http://www.cambridge.org/9781107072732).

The primary *raison d'être* of this book is to contribute an Asian voice to the debate on trade, investment, innovation and their impact on access to medicines. After reading many admirable works in the field, it was clear to me that a work that would present salient issues cutting across various areas of law and policy, particularly to the Asian policy-maker, lawyer or judge, was not yet in existence. I therefore embarked upon what turned out to be a most educational journey of research on those issues, on Asian approaches (or lack thereof) on intellectual property rights and treaty strategies, and on a number of global, topical developments, that can deeply affect access to medicines. An Asian view was also thought to be timely given that aging (with its concomitant ailments and need for affordable medicines) is a serious issue in many Asian countries, including China, Japan and Singapore. A third reason for presenting an Asian view is that Asian participation in bilateral and regional economic agreements – be they in the form of free trade agreements (FTAs) or investment agreements, has been growing rapidly. Some of these contain legal commitments which could affect how a state may (or may not) regulate the patenting, pricing, distribution of and reimbursement for medicines. Such commitments may also exceed the requirements of the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which can pose challenges for developing countries in Asia which aim to keep medicines affordable. Such agreements may also open the door to the possibility of investors taking up investor-state arbitration against signatory states which act or regulate in relation to medicines. This links the access to medicines debate directly to another contentious, global debate on the value and shortcomings of such investment arbitrations. Finally, while intellectual property,

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

trade and investment policy issues play a significant role in the present debate, several other types of factors affect access to medicines in Asia, including corruption, the state of national drug procurement processes and the availability of general infrastructure such as roads, transport systems and medical facilities.

The objective of this book is to present within the Asian and global contexts some significant factors which impact on the access question, the existing legal “construct” within which states operate, economic treaty obligations and the exceptions which can be critical, and examples of investment dispute problems which may “travel” into the pharmaceutical domain. Already, certain judicial decisions of Canada on patentability, as they relate to medicines, have been raised as the subject matter of one foreign investor’s claim. Patentability of certain subject matter, such as the products of biotechnology involving human genetic material, is not universally accepted. For some countries in Asia, such as Cambodia, Lao PDR and Myanmar, patent law itself is a relatively new area altogether. There remain important areas of uncertainty in Asian laws – such as patentability of such newer types of subject matter – which require clear thought, debate and policy by national governments. Ideally, these areas should be examined thoroughly before governments embark on economic agreements with economically advanced partners. Regional groups such as ASEAN, in particular, have an opportunity to shape a regional perspective on this and other aspects of the access to medicines debate.

Another relatively less debated area in the access discussion – at least in many parts of Asia – is the application of competition law to pharmaceutical patent settlement agreements which may impede competition by generic drug producers. While there have been some significant decisions of late in the United States and the European Union in this context, there have been hardly any in Asia, except for a recent decision of the Korean Supreme Court on a pharmaceutical settlement agreement that was found to be anti-competitive. Again, this is an area in which there is room for national regulators in Asia to study the issues and make clear, strong policies.

This book also aims to provide some innovative suggestions and linkages to further advance access to medicines, particularly in Asia. These suggestions range from treaty negotiation approaches to national policy changes and funding considerations of R&D of medicines. They are not intended to be “magic bullets” but, rather, to be ideas that can be used to contribute to the pool of numerous, excellent initiatives and ideas

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:

An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

---

PREFACE

xxiii

which already exist. To paraphrase a famous Chinese saying (on medicines!), 良药苦口利于病, 忠言逆耳利于行 (*liang yao ku kou li yu bing, zong yan ni er li yu xing*): just as a bitter medicine may be good for curing an ailment, earnest words that inconvenience may be good for producing sound actions. It is hoped that this book provides a number of “earnest words” and helpful recommendations.

*Locknie Hsu*  
*Singapore*

Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

## ACKNOWLEDGEMENTS

Given the scope of work undertaken, I am obviously indebted to a large number of persons who took the time to assist and to discuss various aspects of the subject matter with me. I am humbled by the modesty of my own knowledge and have thoroughly enjoyed the learning journey. I wish to thank first of all the Honourable Chief Justice of the Republic of Singapore, Sundaresh Menon, who very kindly took the time to review some of my ideas to write the Foreword (in very encouraging terms indeed) despite his extremely busy schedule. I would also like to thank the Singapore Management University (SMU) for the research support for a related, foundational article on public health; Dean Yeo Tiong Min, SMU School of Law, for his support; the SMU law librarians, Charlotte Gill and Rita Lam, for their prompt and ever-cheerful assistance; and my research assistant, Rachel Loke, for the invaluable research work she did. I thank the following for their generosity in time, provision of information and for connecting me with others for my research: Wolf Meier-Ewert, Adelina Mendoza and Dolores Halloran (WTO); Nuno Pires de Carvalho, Marco Aleman and Aida Dolotbaeva (WIPO); Kimani Goddard (formerly of WIPO); Dr Peter Beyer and Dr Manisha Shridhar (WHO); Anders Jessen (Head of Unit for Public Procurement and Intellectual Property, D-G Trade, European Commission); the Honorable Justice George Wei (Singapore); Chu Swee Yeok (EDBI, Singapore), Kelvin Wong and Helen Chou (Economic Development Board, Singapore); Toh Han Li and Lee Jwee Nguan (Competition Commission of Singapore); Associate Professor Tracey Evans Chan (Ministry of Health, Singapore/National University of Singapore); Serene Wee (Singapore Academy of Law); Jon Pender and Jung-Wook Kim (GlaxoSmithKline); Peter Thomsen (Novartis); the Novartis Institute for Tropical Diseases, Singapore; Judit Rius and Yuanqiong Hu (*Médecins Sans Frontières*); Benjamin Gaw (Drew & Napier); Nadine Mansour (McKinsey & Company); Jo-Ann See (Amica Law LLC); Jimmy Hsu (Eagle Asia Partners); Professor Benn McGrady



Cambridge University Press

978-1-107-07273-2 - Trade, Investment, Innovation and their Impact on Access to Medicines:  
An Asian Perspective

Locknie Hsu

Frontmatter

[More information](#)

## ACKNOWLEDGEMENTS

XXV

(Georgetown Law School); Professor Hi-Taek Shin and Professor Dukgeun Ahn (Seoul National University); Dr Calvin Ho (Yong Loo Lin School of Medicine, National University of Singapore); Professor Terry Kaan (University of Hong Kong); Professor Sakda Thanitcul and Professor Orabhund Panuspattha (Chulalongkorn University, Thailand); Professor Nguyen Thanh Tu (International Law Department, Ministry of Justice, Vietnam); Professor Dr Tran Viet Dung (Dean, International Law Faculty, Ho Chi Minh City University of Law, Vietnam); Associate Professor Nithat Sirichotiratana (Mahidol University, Thailand); Archie Alexander; and Kannikar Kijtiwatchakul (FTA Watch, Thailand). I also acknowledge with deep appreciation the encouragement and friendship that have been extended to me by the following in my journey of learning in international economic law: Emeritus Professor Ernst-Ulrich Petersmann (European University Institute), Professor Peter Van den Bossche (Appellate Body Chair and Member, WTO) and Professor Petros Mavroidis (Columbia Law School, European University Institute and University of Neuchatel). I am also very grateful to Kim Hughes, Helen Francis and Fleur Jones of Cambridge University Press for their valuable guidance in the initial and editing processes. I apologize if I have inadvertently omitted anyone, and any errors are my own.

Last but most certainly not least, I am grateful to God for this journey, and I wish to thank my husband, Basil, for his unstinting support and encouragement, and my siblings.