

Strategic Coupling:
East Asian Industrial Transformation in the New Global Economy

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To Weiyu, Kay, and Lucas – for accompanying me throughout this long march

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Preface and Acknowledgements

This book has taken me a very long time to write. But I have learnt a great deal from the scholarship of writing it, and I am much happier with the work in this final form. It reflects my personal journey through East Asian development, first as a beneficiary and then as a student and now an analyst. Growing up as a teenager in Hong Kong and Singapore during their formative decade of the 1980s, I experienced first hand this transformative development in two of the four East Asian “tiger” economies. Still, I benefited much more than just being someone living in these rapidly developing city-states. I had the fortune of studying them as well!

My first encounter with the developmental state literature was in late 1992 when I embarked on my doctoral research under the supervision of Peter Dicken at the University of Manchester, England. Thanks to Peter’s insightful knowledge of the then emerging field of searching for the “miraculous” East Asian developmental model, I had the early advantage of reading the now giants in this field of the political economy of East Asian development. Looking at my well-worn copy of Robert Wade’s *Governing the Market* (1990, Princeton) – bought at the university bookstore in Manchester on 26 March 1993, it evokes in me strong reminiscence of the early excitement as a keen student of East Asian industrial transformation. Then, I read with intense interest all the other classics, such as Chalmers Johnson’s *MITI and the Japanese Economic Miracle* (1982, Stanford), Frederic Deyo’s *The Political Economy of the New Asian Industrialism* (1987, Cornell), Alice Amsden’s *Asia’s Next Giant* (1989, Oxford), Stephan Haggard’s *Pathways from the Periphery* (1990, Cornell), and so on. Here, I pay tribute to all these giants for laying the solid intellectual foundation upon which this book is predicated.

Since this early period of my interest in the East Asian developmental state, I have consistently followed up with the rapidly growing literature after my return to the National University of Singapore in end 1995. Collectively, this enormous developmental state literature has prompted a heated debate on the role of the state in “governing the market” by “getting the prices wrong” and by promoting selective domestic firms as national champions. Authors in this literature have argued forcefully and demonstrated empirically that state-directed initiatives through industrial policy and credit allocation led these East Asian economies to industrialize rapidly, catching up with advanced industrialized economies in North America and Western Europe. As more monographs and even more journal articles and book chapters were published in the second half of the 1990s and throughout the 2000s on this state-led industrial transformation, I began to witness at the same time a new dynamic mechanism of economic development at work in East Asia that went beyond this domestic statist force.

Since 2004, my experience of researching into the leading domestic firms in Singapore, Taiwan, and South Korea has pointed to a new direction of theorizing industrial transformation in an increasing interconnected world economy. Instead of being driven primarily by their home states, these national firms have taken over the leadership of industrial transformation through their dynamic articulation into complex global production networks – this is the mechanism of strategic coupling that forms the core focus of this book. Conceived as a major contribution to this debate on the changing role and continuity of the state in East Asian economies, this monograph aims to reshape the ways in which we understand the political economy of economic development and evolutionary state-firm relations in these three East Asian economies. I argue that the developmental statist approach to industrial transformation and economic development in these East Asian economies has often ignored the complex and dynamic co-evolutionary nature of state-firm relations within the changing context of economic globalization. This work thus

brings together the bottom-up approach in the developmental state literature and the more top-down perspective in the recent social science literature on global production networks and global value chains.

The theoretical and empirical research underpinning this book clearly benefits from my longstanding collaboration with different colleagues. My theoretical work on global production networks has its deep roots in the “Manchester school” originating in the early 2000s. I thank Peter Dicken, Jeffrey Henderson, Neil Coe, Martin Hess, and Jennifer Johns for their comradeship and support. Neil Coe, in particular, has recently rejoined my department, and our collaboration in this research has since deepened much more and led to our co-authored monograph *Global Production Networks* published in April 2015 (Oxford) and our jointly directed Global Production Networks Centre (GPN@NUS). Philip Kelly, Weidong Liu, and Kris Olds are also my early partners in crime in this endeavor towards understanding complex production networks in the global economy.

My empirical work on the three East Asian economies has its origin in a major research project starting in 2004. I am very grateful to over 100 top executives and senior government officials for acceding to our personal interview requests and sharing generously their knowledge of East Asian development. The promise of anonymity means that I cannot name any of them here. My two NUS collaborators in this project, Yong-Sook Lee and Jang-Sup Shin, have made fundamental contributions to my empirical analysis in this book. I am most indebted to their role in collecting the interview data on domestic firms and state institutions in South Korea. Our outstanding research assistant, Angela Leung, deserves a special commendation for her dedicated assistance throughout the several years of fieldwork in all three economies (plus Hong Kong). Liu Yi, my former PhD student, also helped compiling some of the statistics used in the manuscript.

In Taiwan, Jinn-Yuh Hsu (National Taiwan University) and Tain-Jy Chen (Chung-Hua Institution for Economic Research) were very kind in hosting my multiple visits to Taipei and were most generous with their time and resources. Jinn-Yuh, Bruce Tan, Daniel Yang, Sue-Ching Jou, and their graduate students in NTU Geography kept me well entertained and spirited during extended fieldtrips. All this empirical work would not have been possible without the sustained financial support of the National University of Singapore over the past ten years (RP109000-050112; 116112; 173646; 183646). In the second half of 2006, I spent several months of sabbatical leave in Hong Kong and Japan during which more empirical data were collected. I thank Eric Ramstetter at the International Centre for the Study of East Asian Development in Kitakyushu, Japan, and George Lin at the University of Hong Kong for their strong friendship and support in securing me generous visiting professorships in both institutions.

Translating this protracted theoretical and empirical research into an actual monograph has been a Herculean task that necessitates a whole new set of benefactors. The writing of this book started in 2010 when I was on the NUS Humanities and Social Sciences Faculty Research Fellowship for one semester. The book proposal was written in November 2012 when I was on the Residency Fellowship at the Rockefeller Foundation’s beautiful Bellagio Study and Conference Center in Italy. I thank Kishore Mahbubani for nominating me to the Foundation and Catherine Weaver and Eric Sheppard for their careful reading and constructive comments on my book proposal. Other fellow academic residents at the Bellagio Center offered very useful suggestions and stimulating discussions: Laurie Brand, Ruth Fincher, Helga Leitner, Valerie Preston, Anne

Salmond, and Michael Webber. Pilar Palaciá, the Bellagio Center's managing director, and her dedicated team provided the most amazing hospitality that made Villa Serbelloni's tranquility and serenity just so heavenly for all of us. Working on my manuscript in the villa's private study overlooking the magnificent Lake Como was simply a once-a-lifetime experience. The finalization of the entire manuscript for first submission was completed during my sabbatical leave at the School of Geosciences, University of Sydney, Australia, in 2013. I thank the University of Sydney for its Visiting Professorship appointment that enabled this crucial preparation. An extended discussion with John Mathews over coffee in Potts Point was most fruitful.

Publishing this book with one of the world's top university presses and its renowned book series is a dream that has indeed come true by the time you read this! Four individuals are positively implicated in this process, and I am forever grateful to them. First and foremost, I am immensely grateful to Peter Katzenstein for spending a significant chunk of his invaluable time to read different submissions of my manuscript and for offering critical and yet extraordinarily productive comments. His penetrating insights into theory, analysis, and readership are unparalleled and have certainly made the book much stronger. With the usual caveats, I can only hope this version befits in a modest way his prestigious Cornell Studies in Political Economy series that has already made enormous contributions to the developmental state literature over the past 30 years. Roger Haydon, my executive editor at Cornell University Press, is really a gem to work with. His generous support and sustained encouragement have kept this project on track. I thank him and Peter for their exceptional responsiveness, great patience, and steadfast commitment to this work. Finally, I thank Dan Breznitz and an anonymous reader for their interventions at the critical stages of this manuscript publication. Dan was very kind with his candid advice on manuscript publishing and introduction to Cornell. The detailed and constructive comments from the reader were highly useful to my revisions.

The broad ideas in this manuscript have been presented as lectures and preliminary papers in different occasions since 2006: the *Asia Pacific Viewpoint* Lecture at the International Geographical Union Regional Congress in Brisbane, Australia (2006); the Norma Wilkinson Lecture at the University of Reading, England (2007); Birkbeck College, University of London (2007); annual meetings of the Association of American Geographers in Boston (2008) and Las Vegas (2009); annual conferences of the Regional Studies Association in Leuven, Belgium (2009) and Pécs, Hungary (2010); Asia Centre of Seoul National University, South Korea (2009); the DIME Workshop in Utrecht, the Netherlands (2009); University College Dublin, Ireland (2010); McGill University, Canada (2011); the Jeremiah Lecture, University of Oregon (2011); the LSE-NUS Public Lecture, the London School of Economics and Political Science (2012); National University of Ireland, Maynooth (2012); Academy of International Business (UK & Ireland) Conference at the University of Liverpool Management School, England (2012); Third Global Lecture, University of Copenhagen, Denmark (2012); the Institute of Australian Geographers Conference 2013, Perth (2013); and the *Regional Science Policy & Practice* Lecture at the North American Regional Science Council Conference, Washington, DC (2014).

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Henry Yeung
Singapore
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Abbreviations

A*Star	Agency For Science, Technology And Research, Singapore
CEPD	Council for Economic Planning and Development, Taiwan
CIECD	Council for International Economic Cooperation and Development, Taiwan
CPF	Central Provident Fund
CPHCI	Committee for the Promotion of Heavy and Chemical Industrialization, South Korea
CSBC	China Shipbuilding Corp
CUSA	Council on United States Aid, Taiwan
DPP	Democratic Progressive Party, Taiwan
DRAM	dynamic random access memory
EDB	Economic Development Board, Singapore
EMS	electronics manufacturing services
EPA	Economic Planning Board, South Korea
EPC	Economic Planning Council, Taiwan
ERSO	Electronic Research Service Organization, Taiwan
ETRI	Electronic Technology Research Institute, South Korea
FDI	foreign direct investment
FSC	Financial Supervisory Commission, South Korea
FSS	Financial Supervisory Service, South Korea
FTA	free trade agreement
GLC	government-linked company
HCI	heavy and chemicals industries
HDB	Housing and Development Board, Singapore
HHI	Hyundai Heavy Industries
ICT	information and communications technology
IDB	Industrial Development Bureau, Taiwan
IDM	integrated device manufacturer
IMF	International Monetary Fund
IMG	intermediate manufactured goods
IPO	initial public offering
ITRI	Industrial Technology Research Institute, Taiwan
KIST	Korea Institute of Science and Technology
KMT	Kuomintang, Taiwan
GPN	global production network
GVC	global value chain
LIUP	Local Industry Upgrading Program, Singapore
MAS	Monetary Authority of Singapore
MITI	Ministry of International Trade and Industry, Japan
MOCIE	Ministry of Commerce, Industry, and Energy, South Korea
MOEA	Ministry of Economic Affairs, Taiwan
MOFE	Ministry of Finance and Economy, South Korea
MOIC	Ministry of Information and Communication, South Korea
MOKE	Ministry of Knowledge Economy, South Korea
MOPB	Ministry of Planning and Budget, South Korea
MOSF	Ministry of Strategy and Finance, South Korea
MOTIE	Ministry of Trade, Industry, and Energy, South Korea
MTI	Ministry of Trade and Industry, Singapore or South Korea

NSTB	National Science and Technology Board, Singapore
NBFI	non-bank financial institution
OBM	original brand manufacturing
ODM	original design manufacturing
OEM	original equipment manufacturing
PAP	People's Action Party, Singapore
POSCO	Pohang Iron and Steel Company
R&D	research and development
SHI	Samsung Heavy Industries
SME	small and medium enterprise
SOE	state-owned enterprise
SPIL	Silicon Precision Industries Corporation
TFT-LCD	thin film transistor-liquid crystal display
TNC	transnational corporation
TSE	Taiwan Stock Exchange
TSMC	Taiwan Semiconductor Manufacturing Company
UMC	United Microelectronics Company
USPTO	United States Patent and Trademark Office
VLSI	very-large-scale integration
WTO	World Trade Organization